



## **WESTAR QUARTERLY REPORT**

Reporting Period: 3<sup>rd</sup> Quarter 2015

Report Date: October 30, 2015

EPA Grant No. XA-00T68001

EPA Grant No. XA-00T82602

NPS Agreement No. P14AC00099

Task 2: P14AC01122-TA

BLM/JFSP Agreement No. L14AC00008

BLM Agreement No. L14AC00077

New Mexico P.O. #66700-0000025413

Regardless of funding source, all of the projects and activities conducted by WESTAR are consistent with and intended to achieve the purposes of the organization spelled out in Article 2 of WESTAR's Articles of Association, including promoting the exchange of information related to air quality management, developing procedures to meet air quality objectives and to protect environmental resources, to establish workgroups to investigate specific topics, and to develop recommendations for the consideration of the membership. This report summarizes activities and outcomes for this reporting period.

### Reporting Organization:

Name: Western State Air Resources (WESTAR)  
DUNS#: 1460040020000  
Address: 1218 3<sup>rd</sup> Ave., Suite 1518  
Seattle, WA 98101  
Telephone: (206) 254-9142

### Contents

- 1) [EPA Core Grant 2011-13 \(XA-00T68001\)](#)
- 2) [EPA Core Grant 2014-16 \(XA-00T82602\)](#)
- 3) [NPS Cooperative Agreement \(P14AC00099\)](#)  
[Task 2: P14AC01122-TA](#)
- 4) [BLM/JFSP Cooperative Agreement \(L14AC00008\)](#)
- 5) [BLM Air Quality Modeling Western States Project \(L14AC00077\)](#)  
[Drill Rig Monitoring Study](#)  
[New Mexico Oil and Gas Emission Inventory](#)
- 6) [New Mexico Dona Ana Modeling Contract](#)
- 7) [Other Significant WESTAR Activities](#)
- 8) [Consolidated Expense Summary](#)

## 1. EPA CORE GRANT 2011-13

*Note: On September 26, 2014 EPA granted a no-cost extension to amend the deadline to complete this grant to December 31, 2015. This extension was specifically for the purpose of “spending down” balances in state travel accounts. Accordingly, the only activities conducted under this grant beginning October 1, 2014 will be state travel expenditures.*

### a. Budget Summary and Status

The following tables summarize the status of WESTAR’s Core Grant budget, comparing cumulative grant awards since the inception of the current grant (September 1, 2011) through the end of the most recent quarter. While authority to spend against the new grant began on September 1, 2011, WESTAR continued to spend down the prior grant through November 2011. Thus expenditures for the first two months of the project period were paid out of the prior grant.

#### **EPA Core Grant 2011-13 Cumulative Grant Awards by Project through 9/30/2015**

<b>Project Title</b>	<b>Total Anticipated Project Period Cost</b>	<b>Total Awards Project Period to Date as of 9/30/2015</b>	<b>Percentage</b>
Operations	840,000	830,312	99%
Training	1,102,500	1,102,500	100%
Regional Tech Support	0	147,208	
State Travel Support	410,961	348,627	85%
<b>Totals</b>	<b>2,353,461</b>	<b>2,428,647</b>	<b>103%</b>

#### **EPA Core Grant 2011-13 Expenses by Object Class through 9/30/2015**

<b>Object Class</b>	<b>Budget</b>	<b>This Quarter</b>	<b>Cumulative Expenses</b>	<b>Percentage</b>
1. Personnel	644,623	7,089	658,606	102%
2. Fringe Benefits	172,051	1,547	157,390	91%
3. Travel	740,189	34,296	600,423	81%
4. Equipment	0	0	0	
5. Supplies	0	0	0	
6. Contractual	114,037	0	113,622	100%
7. Construction	0	0	0	
8. Other	351,727	17,249	379,120	108%
9. Indirect Expenses	406,020	5,181	451,636	111%
<b>Totals</b>	<b>2,428,647</b>	<b>65,363</b>	<b>2,360,798</b>	<b>97%</b>

## 2. EPA CORE GRANT 2014-16

*Note: Work on activities and spending against this grant began October 2014.*

### a. Activity Summary: Operations Project

The purpose of the Operations project is to develop, implement, and support the policy and technical activities at WESTAR that benefit member states. Funding for this project comes entirely from member state contributions. In addition, personnel from member states and federal land management agencies contribute their time and expertise to many of the tasks performed under this project.

#### 1) Status of work plan activities – Operations Project

<i>Expected Result for Project Period</i>	<i>Results/Outcomes</i>	
	<i>2015 Q3</i>	<i>Project Period Total</i>
<b>27</b> Air director conference calls, documented with minutes posted on WESTAR’s website	<b>2</b>	<b>10</b>
<b>6</b> Business meetings, documented with minutes and presentations posted on WESTAR’s website	<b>0</b>	<b>1</b>
<b>120</b> Committee and ad hoc workgroup conference calls	<b>30</b>	<b>79</b>
<b>12</b> Trips by committee chairs to brief air directors on committee activities	<b>0</b>	<b>3</b>
<b>3</b> Specialty conference on a high priority topic	<b>0</b>	<b>0</b>
<b>3</b> Meetings held to address emerging topics	<b>0</b>	<b>0</b>
<b>9</b> Trips by committee representatives to attend national meetings and report back to WESTAR membership	<b>0</b>	<b>4</b>

2) Other Activities this Quarter – Operations Project

- The WESTAR Regional Haze Work Group has been actively involved with EPA, Regional Planning Organizations, and states and tribes across the country to improve the regional haze program.
- The WESTAR Ozone and Background Work Group hosted three conference calls with scientific experts during the quarter.
- WESTAR participated in discussions with member states, NESCAUM and EPA on the development of a cord wood test method for residential heating devices.

b. Activity Summary: Training Project

The purpose of the Training Project is to: (1) deliver high quality training courses/workshops that meet the needs and expectations of state and local air agency staff within the fifteen-state WESTAR region; (2) develop needed, cost-effective, responsive, and western-states-focused training opportunities; and (3) act as the main point of contact for information and educational training opportunities related to air quality training.

1) Status of work plan activities – Training Project

<i>Expected Result for Project Period</i>	<i>Results/Outcomes</i>	
	<i>2015 Q3</i>	<i>Project Period Total</i>
<b>69</b> Educational opportunities developed and delivered:	<b>11</b>	<b>33</b>
* Continuous Emission Monitoring (Alb, NM)		
* Coatings, Auto, Metal Parts & Products (Alb, NM)		
* Observing Source Testing (Alb, NM)		
* Hot Mix Asphalt Plants (Alb, NM)		
* Sources & Control of VOCs (Santa Fe, NM)		
* Advanced Inspectors (Boise, ID)		
* Incinerators (Denver, CO)		
* Coatings, Auto, Metals Parts & Products (Denver, CO)		
* Stationary Reciprocating Engines (Denver, CO)		
* VOC Control Devices (Denver, CO)		
* Combustion Evaluation (Anchorage, AK)		
<b>1800</b> Students trained	<b>246</b>	<b>715</b>
<b>3450</b> Student training days	<b>404</b>	<b>1408</b>
<b>1</b> Training course developed/updated	<b>0</b>	<b>0</b>

## 2) Other Activities this Quarter – Training Project

- WESTAR staff continues to work with EPA and other MJOs on the design, development and updating of various APTI training courses including quality assurance/quality control; state implementation planning; oil and gas; and continuous emission monitoring.
- WESTAR staff participates on conference calls with the APTI-Learn.net Team to identify improvement and enhancement opportunities, and provide recommendations to enhance the user's experience with APTI-Learn.
- WESTAR's staff provides leadership role on the Clean Power Plan (CPP) to its member agencies by disseminating information about upcoming meetings and conferences, assisting western air quality agencies with their understanding of the impacts of the proposed CPP and compliance options, and by identifying critical/important topics for face-to-face meetings and conference calls.
- WESTAR staff collaborates with stakeholders outside of the air pollution program such as the Center for New Energy Economy (CNEE), Western Interconnect Energy Board (WIEB), Western Electricity Coordinating Council (WECC), and Regulatory Assistance Project (RAP) to inform and enhance air agency staff understanding of CPP issues that are important to other stakeholders such as Public Utility Commissions (PUC), Environmental Commission Boards, and electrical grid operators who are, or whose constituencies are, effected by the CPP.
- WESTAR staff continues to serve as members on the National Training Strategy Committee. The NTS Committee established the following goals: to understand the priority training needs of air quality agency professionals; to provide training opportunities that meet the priority needs of air quality agency professionals; to utilize course materials that are up-to-date, accurate, complete, and easy to use; to conduct all training using recognized subject matter experts and effective teachers; and to deliver effective and cost-efficient training through the use of existing, new and emerging technologies where appropriate
- WESTAR staff also serve as members on various committee including AAPCA, and NACAA and EPA Joint Training Committee (JTC). The JTC developed a Training Strategy Action Plan which includes efforts in: course update priorities; prioritize and initiate a plan to develop training offerings to fill gaps, based on curriculum project; develop and implement a process to determine the highest priority training needs on an on-going basis; develop and implement a plan for further enhancement and on-going maintenance of APTI-Learn; and re-launch an improved Learning Management System (APTI-Learn).

### c. Activity Summary: Regional Technical Support Project

The purpose of the Regional Technical Support project is to provide technical support to member agencies related to analysis of monitoring data, analysis and preparation of emissions inventories, regional modeling analyses, and operation and maintenance of web databases – all for member agencies to use in their air quality management and planning activities.

1) Status of work plan activities – Regional Technical Support Project

<i>Expected Result for Project Period</i>	<i>Results/Outcomes</i>	
	<i>2015 Q3</i>	<i>Project Period Total</i>
<b>15</b> Regional technical analysis/planning conference calls	<b>3</b>	<b>15</b>
<b>12</b> Technical Oversight Committee conference calls	<b>1</b>	<b>8</b>
<b>6</b> Face-to-face WRAP Board meetings	<b>0</b>	<b>1</b>
<b>30</b> Travel support provided to local agency and tribal WRAP Board members	<b>0</b>	<b>8</b>

2) Other Activities this Quarter – Regional Technical Support Project

- Staff continued the development of the WRAP Regional Technical Center through discussions with state and federal agencies.
- Staff continued to work with state and federal agencies, including regional EPA offices, to discuss and collect input on regional technical analysis needs in the western U.S.
- Dissemination of reports, data, and summary results were conducted via the [WRAP website](#).
- At the request of EPA OAQPS and Region 8, a [Memo on WRAP Phase III oil and gas speciation profiles](#) and [organic gas profile data](#) was prepared and posted on the WRAP website on the Emissions tab.

d. Budget Summary and Status

The following tables summarize the status of WESTAR’s Core Grant budget, comparing cumulative grant awards since the inception of the current grant (September 1, 2014) through the end of the most recent quarter. While authority to spend against the new grant began on September 1, 2014, WESTAR continued to spend down the prior grant through September 2014 and will continue to spend down State Travel Support funds through 2015, or until funds from the prior grant are depleted.

**EPA Core Grant 2014-16  
Cumulative Grant Awards by Project through 9/30/2015**

<b>Project Title</b>	<b>Total Anticipated Project Period Cost</b>	<b>Total Awards Project Period to Date as of 9/30/2015</b>	<b>Percentage</b>
Operations	840,000	549,868	65%
Training	1,102,500	735,000	67%
WRAP Support	457,452	304,968	67%
State Travel Support	361,548	215,304	60%
<b>Totals</b>	<b>2,761,500</b>	<b>1,805,140</b>	<b>65%</b>

**EPA Core Grant 2014-16  
Expenses by Object Class through 9/30/2015**

<b>Object Class</b>	<b>Budget</b>	<b>This Quarter</b>	<b>Cumulative Expenses</b>	<b>Percentage</b>
1. Personnel	657,106	46,293	205,612	31%
2. Fringe Benefits	178,098	10,172	45,788	26%
3. Travel	731,738	2,670	64,353	9%
4. Equipment	0	0	0	
5. Supplies	0	0	0	
6. Contractual	105,000	0	0	0%
7. Construction	0	0	0	
8. Other	338,488	16,666	145,109	43%
9. Indirect Expenses	751,070	51,039	234,166	31%
<b>Totals</b>	<b>2,761,500</b>	<b>126,839</b>	<b>695,028</b>	<b>25%</b>

**3. NPS COOPERATIVE AGREEMENT**

Under this agreement, WESTAR/WRAP has agreed to cooperate with the National Park Service in furthering the understanding of air quality formation, transport and effects in the western U.S., which includes but is not limited to ambient monitoring and data reporting, creation and operation of databases, development of emission inventories, performance of air quality modeling to understand the effects of pollution and to facilitate discussion of possible mitigation, and the development of outreach and education products toward bettering the understanding of Western air quality by the public and stakeholders.

Projects and activities under this Agreement will be individually authorized by separate task agreements, with each project or activity having a separate work plan and budget developed cooperatively between the NPS and WESTAR/WRAP.

**TASK 1: 3-State Study Coordination and Data Warehouse (P14AC00133)** was completed on 9/30/2014.

**TASK 2: Three State Air Quality Study (P14AC01122)**

a. Activity Summary

Under this Task Agreement, WESTAR/WRAP provides collaboration and coordination services for states, tribes, local air agencies, and federal agencies across the Western U.S. under the leadership of the 3-State/Federal Leadership Forum (3-State/FLF). The 3-State/FLF is implementing the Western AQ Study with the following objectives:

- Provide storage and access to consistent, sufficient, comparable and high-quality technical data.
- Provide consistent protocols for technical data and its analysis for air quality impacts to be performed by the Three-State Study/FLF partner agencies.
- Initiate and support collaborative work by the federal and state partners on National Environmental Policy Act (NEPA) air quality analyses relative to energy development and for a broad range of air quality planning activities, including emissions, meteorological and air quality modeling.
- Develop technical capacity and improved data sets for the cooperating agencies using standardized reproducible data collection, quality assessment, analysis and storage protocols.
- Identify, document and apply criteria for base year and future year projections.
- Assist NPS and the Intermountain West Data Warehouse – Western Air Quality Study Governing Board in identifying ways and means of ongoing funding to support the data warehouse when operational
- Identify the mechanisms to be used by the technical work groups to report to the Oversight Committee and Governing Board for the Intermountain West Data Warehouse – Western Air Quality Study.

WESTAR/WRAP staff, serving as project coordinator for the Intermountain West Data Warehouse - Western Air Quality Study (IWDW-WAQS) conducted the following activities related to the furtherance of these objectives over the reporting period:

*Activities related to study coordination:*

- Provided staff support to working groups related to development of IWDW-WAQS ongoing operations protocols and public outreach materials.
- Organized and executed 8 conference calls for IWDW-WAQS technical activities.
- Organized and executed the July 23<sup>rd</sup> IWDW-WAQS Technical Committee conference call meeting.
- Organized and executed the July 30<sup>th</sup> IWDW-WAQS Oversight Committee and September 23<sup>rd</sup> Technical Committee in-person meetings.



*Activities related to coordinating the efforts of the NPS, 3-State Study partners, and the Data Warehouse technical contractor team to design, assemble, test, populate, and plan further development of the Warehouse:*

- Transfer protocols for modeling data and inputs to external users were updated and file transfers to outside users continued in the 3<sup>rd</sup> quarter 2015.
- Daily work continued on the construction and implementation of the data, web database, visualization tools, associated metadata, and web pages to access and use the Data Warehouse.

*Activities related to organizing and attending meetings, webinars, and calls for the 3-State Study:*

- More than a dozen conference calls were held this quarter to manage the work of the technical support contractor team including Colorado State University (CSU)-Cooperative Institute for Research in the Atmosphere (CIRA), the University of North Carolina (UNC), and ENVIRON International Corp.

### **Summary of Work Plan Activities**

<i>Expected Result for Project Period</i>	Results/Outcomes	
	<i>2015 Q3</i>	<i>Project-to-date</i>
<b>6</b> Conference calls or meetings with Governing Board or Steering Committee	<b>3</b>	<b>4</b>
<b>5</b> Face-to-face meetings	<b>2</b>	<b>6</b>
<b>4</b> Technical milestones requiring special communication effort	<b>5</b>	<b>13</b>

*Activities related to air quality modeling for the Study region:*

- Regional modeling study analysis for the 2011 version B modeling platform continued.
- Work on tasks under the Oct. 2014 through June 2015 Scope of Work continued for ENVIRON and UNC. Additional effort was added by the Technical Committee, extending the SoW end date through March 2016, but not increasing the cost.
- An IWDW-WAQS working group to steward the ongoing data transfer process was continued, with monthly calls.
- An IWDW-WAQS working group on Model Performance Evaluation was continued to document both needed ongoing evaluation activities and standards for selecting contracted modeling support.
- An IWDW-WAQS outreach group comprised of cooperator agency representatives met to develop materials to assist in seeking outside funding.

b. Budget Summary and Status

**NPS Cooperative Agreement  
Task 2 – Three State Air Quality Study # P14AC01122-TA  
Expenses by Object Class through 9/30/2015**

<b>Object Class</b>	<b>Budget</b>	<b>This Quarter</b>	<b>Cumulative Expenses</b>	<b>Percentage</b>
1. Personnel	75,493	11,036	50,426	67%
2. Fringe Benefits	16,553	1,948	8,567	52%
3. Travel	2,192	545	4,641	212%
4. Equipment	0	0	0	
5. Supplies	0	0	0	
6. Contractual	778,186	0	778,186	100%
7. Construction	0	0	0	
8. Other	3,456	375	3,172	92%
9. Indirect Expenses	75,493	11,713	56,495	75%
<b>Totals</b>	<b>951,373</b>	<b>25,616</b>	<b>901,487</b>	<b>95%</b>

<sup>1</sup> WESTAR has drawn the approved contractual amount as an advance. A summary of contract expenses follows.

<b>Project Contractor</b>	<b>Advance Received</b>	<b>This Quarter</b>	<b>Cumulative Expenses</b>	<b>Balance</b>
Environ	705,186	108,308	389,422	315,764
St of Utah	73,000	0	73,000	0

**4. BLM/JFSP COOPERATIVE AGREEMENT (PMDetail)**

Under this cooperative agreement, WESTAR, through WRAP, is charged with delivering innovative and useful technical products in the form of a quantitative assessment of prescribed and other fire types' effect on likely PM standards, both 24-hour and annual average for each of three historic years and 2008 alternate future scenarios. This assessment will rank fire contributions by locations. The planned PM exceedance vulnerability matrix will enable federal land management agencies to evaluate future real-world decisions about prescribed burning effects on air quality.

a. Administrative Status

The budget and work plan for this project was submitted to the Joint Fire Sciences Program (JFSP) and the Idaho State Office of the Bureau of Land Management as the grant award entity in November and December 2013. The grant monies were then awarded in February and March 2014, in two increments. Contracts with the four technical support organizations (Air Sciences, Inc.; ENVIRON; Colorado State University; and Carnegie-Mellon University) were executed shortly after the award.

b. Activity Summary

In July 2015, an updated summary of the deliverables and schedule to complete the PMDETAIL project was provided by E-Mail to the JFSP and the Idaho BLM Grants Management Office. The schedule to complete the project was revised to a completion date of December 2015 and the deliverables were consolidated and updated as shown below.

**Deliverable:** Periodic updates to the [WRAPTools PMDETAIL project website](#), including data and analysis results for 2002, 2008, 2011, and future episodes.

**Delivery Dates:** 2002 results completed June 2014. 2008 modeling results completed December 2014. Updated emission inventories / filter selection / animations for 2008 completed Summer 2015. 2011 and future episodes will be completed in Fall 2015.

**Deliverable:** Online tools, including regulatory analysis/assessment results with case studies

**Delivery Dates:** Analysis of 2008 modeling and filter analysis results for case studies completed May 2015. Analysis of 2011 filter analysis results, 2011 filter analysis and modeling for case studies, and completion of online tools will be completed in Fall 2015.

**Deliverable:** Training will be webinar-style FLM user training for the online PMDETAIL tools

**Delivery Dates:** December 2015 – proposed date(s) to be identified at August 2015 project team meeting.

**Deliverable:** Submit Final Report to JFSP and summary of methodology and findings of PMDETAIL to refereed publication

**Delivery Dates:** December 2015

c. Other activities

- The PMDETAIL Project Team and WESTAR/WRAP staff held an in-person meeting in August and a conference call in July to continue work and manage the schedule and deliverables for the remainder of the project.

d. Budget Summary and Status

WESTAR “inherited” the funds remaining in the PMDETAIL project originally awarded to WGA. WESTAR’s budget for this project is based on an updated Scope of Work reflecting the work completed under the WGA award and the work that remains to be completed under the WESTAR award.

**BLM/JFSP Cooperative Agreement  
PMDETAIL Project #L14AC00008  
Expenses by Object Class through 9/30/2015**

Object Class	Budget	Cumulative		
		This Quarter	Expenses	Percentage
1. Personnel	14,449	1,905	13,403	93%
2. Fringe Benefits	2,041	336	2,212	108%
3. Travel	1,900	-271	3,293	173%
4. Equipment	0	0	0	
5. Supplies	0	0	0	
6. Contractual	400,039	29,421	289,761	72%
7. Construction	0	0	0	
8. Other	7,455	80	1,580	21%
9. Indirect Expenses	15,211	1,991	15,250	100%
<b>Totals</b>	<b>441,095</b>	<b>33,462</b>	<b>325,499</b>	<b>74%</b>

**5. BLM AIR QUALITY MODELING WESTERN STATES PROJECT**

**Drill Rig NO2 Monitoring Study**

WESTAR received initial funding from the American Petroleum Institute (API) in late 2013 to organize a workgroup and develop a work plan and schedule to execute a Study to collect ambient measurements adjacent to drilling rigs to evaluate actual 1-hour NO<sub>2</sub> impacts from drilling operations. In addition, sufficient data would be collected regarding drilling operations that could be used to verify NO<sub>2</sub> air quality models. The Study will focus on short term episodes.

In May 2014, WESTAR/WRAP responded to a funding opportunity notice from the Bureau of Land Management (BLM) for this Study. A funding proposal was prepared and submitted by WESTAR/WRAP and was then awarded by the BLM as Task 1 under the BLM-WESTAR Cooperative Agreement. The BLM funding is allocated for travel and communications for WESTAR/WRAP staff to support the Study. The BLM funding is also allocated to pay the salary of a 50% full-time equivalent WESTAR contract employee. In August 2014, API transferred funding resources to WESTAR for the bulk of the Colorado field sampling contract. In December 2014, BLM provided additional grant funding to cover the remainder of the

Colorado field sampling expenses, WESTAR/WRAP staff support, and a separate data formatting and analysis contracted effort.

a. Activity Summary

Activities this quarter included:

- The WESTAR/WRAP contract employee continued the evaluation of the Alaska and Colorado field sampling data and reports, and coordinated overall Study activities.
- The short-term, limited scope effort with AMEC Foster Wheeler to format and quality assure the data collected in the field, for use in future Model Evaluation activities was completed.
- The WESTAR/WRAP contract employee has organized a Model Evaluation workgroup and held an in-person meeting on August 14<sup>th</sup> to analyze the field studies' data from Alaska and Colorado.
- The [Drill Rig 1-hour NO<sub>2</sub> Collaborative Monitoring Study](#) project webpage was updated.

b. Budget Summary and Status

The BLM Task 1 funding and supplemental funding received in late 2014 enabled Phase 2 of the Study and provides staff support to the entire Study. Remaining Phase 1 funds have been applied to Phases 2 through 4, combined with additional resources that will be needed for these phases. The combination of funding for WESTAR personnel by BLM and the field sampling contract support from API is the combined funding for this project.

**BLM Air Quality Modeling Western States  
Including Continuing Work on Drill Rig NO<sub>2</sub> Monitoring Study  
BLM Cooperative Agreement # L14AC00077  
Expenses by Object Class through 9/30/2015**

<b>Object Class</b>	<b>Budget</b>	<b>This Quarter</b>	<b>Cumulative Expenses</b>	<b>Percentage</b>
1. Personnel	16,800	2,777	20,876	124%
2. Fringe Benefits	6,222	490	3,376	54%
3. Travel	8,426	376	2,205	26%
4. Equipment	0	0	0	
5. Supplies	0	0	0	
6. Contractual	188,244	18,328	166,825	89%
7. Construction	0	0	0	
8. Other	1,463	32	4,976	340%
9. Indirect Expenses	18,845	1,506	22,861	121%
<b>Totals</b>	<b>240,000</b>	<b>23,509</b>	<b>221,120</b>	<b>92%</b>

## **Oil and Gas Emissions Inventory Updates for the San Juan and Permian Basins**

The BLM New Mexico State Office (NMSO) and the State of New Mexico Environmental Department (NMED) Air Quality Bureau need up-to-date and accurate oil and gas emission inventories in the near future to address the potential air quality and AQRV impacts associated with oil and gas development in the region. They need a comprehensive O&G emissions inventory that can be used for air quality modeling and planning. The objective of this project is to develop the input data that will be used to develop a detailed and comprehensive O&G emissions inventory for the 2014 baseline year and a projection 5-7 years in the future using the WRAP Phase III methodology and procedures. This work will allow the BLM to obtain more accurate air quality and AQRV impact assessments due to current and future O&G development activities in New Mexico.

### **a. Activity Summary**

This project 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>) and greenhouse gases (CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O). Ramboll-Environ is working for WESTAR/WRAP to prepare and analyze the surveys. Airstar Consulting is working for Ramboll-Environ as the project survey coordinator and primary industry contact. WRAP's contractors will coordinate participation and data collection from producers in the Basin. 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 (New Mexico Environment Department - Air Quality Bureau, Colorado Department of Public Health and Environment - Air Pollution Control Division, and EPA Region 6, 8, and 9), and the tribes in the San Juan Basin (Navajo, Ute Mountain Ute, Southern Ute, and Jicarilla Apache) to verify and update emissions for permitted O&G point sources in the 2014 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 provide inputs that will allow the estimation of a comprehensive inventory of air pollutants covering most major O&G activities in the basin by mineral estate ownership: 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 memoranda and spreadsheets for each basin will reside on the WRAP website.

### **Project Schedule for Greater San Juan O&G Emissions Inventory Project**

- **Begin Survey preparation, Ranked List of Companies, Query for State/Federal Agencies, Access IHS database at BLM, identify Contacts** **June 2015**

from Ranked List of Operators from Production Statistics, Contacts from Agencies

- Schedule and Hold Outreach Calls/Meetings
- Distribute Survey Instruments and Agency Queries July 2015
  - Hold additional outreach calls
- Agencies & Companies Complete/Submit Query Response August 2015
- Complete Draft and Final Memoranda/Spreadsheets Fall 2015

b. Other significant project activities

- A conference call meeting with tribes, states, O&G operators, federal agencies, and environmental interests in the greater San Juan Basin area was held July 22<sup>nd</sup> to discuss progress on the project.

The project website was established at: <http://www.wrapair2.org/SanJuanPermian.aspx>.

c. Budget Summary and Status

**BLM Oil and Gas Emissions Inventory Updates  
for the San Juan and Permian Basins  
BLM Cooperative Agreement # L14AC00077  
Expenses by Object Class through 9/30/2015**

Object Class	Budget	This Quarter	Cumulative Expenses	Percentage
1. Personnel	6,190	3,978	5,689	92%
2. Fringe Benefits	1,780	701	1,000	56%
3. Travel	1,497	1,025	1,025	68%
4. Equipment		0	0	
5. Supplies		0	0	
6. Contractual	92,950	40,955	42,579	46%
7. Construction		0	0	
8. Other		0	0	
9. Indirect Expenses	7,583	5,591	6,637	88%
<b>Totals</b>	<b>110,000</b>	<b>52,250</b>	<b>56,931</b>	<b>52%</b>

## 6. NEW MEXICO DONA ANA MODELING

A contract was awarded by the State of NM Air Quality Bureau to WESTAR for work to start by the end of September 2015 for a comprehensive ozone modeling study for the southern Dona Ana County, NM area. The State of NM is funding this work separately, aligned with and leveraged against similar work during the same time frame in 2015 under the IWDW-WAQS effort. Additional reporting will begin in the 4<sup>th</sup> quarter 2015.

This work will collect and report detailed emissions inventory data, meteorological monitoring and modeling data and source apportionment to identify significant contributions to New Mexico's border areas ozone.

### a. Activity Summary

The work elements for this project include the following:

1. Work plan and PowerPoint presentation of Weather Research Forecast (WRF) Meteorological Modeling Application/Evaluation Report.
2. PowerPoint presentation on Permian Basin oil and gas 2011 and future year emission update. Due date: 9/30/15
3. PowerPoint presentation on Mexico emissions to be used in 2011 base and future year modeling. Due date: 11/30/15
4. Technical memo for 2011 base year base case emissions modeling prepared with SMOKE. Due date: 12/31/15
5. PowerPoint presentation on results of natural emissions modeling. Due date: 12/30/15
6. PowerPoint presentation on the base year air quality modeling. Due date: 12/30/15
7. Base case modeling and model performance report. Due date: 2/29/16
8. PowerPoint presentations on future year emissions modeling. Due date 2/29/16
9. PowerPoint presentation on future year air quality modeling. Due date: 3/31/16
10. PowerPoint presentation on future year ozone projections. Due date: 3/31/16
11. Power Point presentation on future year emissions sensitivity modeling. Due date: 5/31/16
12. PowerPoint presentation and interactive Excel spreadsheets on future year ozone source apportionment modeling. Due date: 6/30/16
13. Draft Technical Support Document (TSD), final TSO, and Response to Comments (RtC) document for NMED. Modeling data, RtC document, and final TSD also posted on WAQS data warehouse. Due date: 11/18/16



b. Budget summary and status

**New Mexico Dona Ana Modeling Project  
NM P.O. #66700-0000025413  
Expenses by Object Class through 9/30/2015**

<b>Object Class</b>	<b>Budget</b>	<b>This Quarter</b>	<b>Cumulative Expenses</b>	<b>Percentage</b>
1. Personnel	5,000	391	391	8%
2. Fringe Benefits	1,000	68	68	7%
3. Travel	0	0	0	
4. Equipment	0	0	0	
5. Supplies	0	0	0	
6. Contractual	202,500	0	0	0%
7. Construction	0	0	0	
8. Other	0	0	0	
9. Indirect Expenses	6,000	391	391	7%
<b>Totals</b>	<b>214,500</b>	<b>850</b>	<b>850</b>	<b>0%</b>

**7. OTHER SIGNIFICANT ACTIVITIES**

- Following an extensive search, the WESTAR Council selected Mary Uhl to serve as WESTAR's new Executive Director. Mary will begin in February 2016.

## 8. CONSOLIDATED EXPENSE SUMMARY

### Cumulative Expenses by Object Class and Funding Source through 9/30/2015 All Active Accounts

	EPA	EPA	NPS	NM	BLM/JFSP	BLM	BLM	
Object Class	Core Grant 2011-13	Core Grant 2014-16	Task 2 3-State	Dona Ana Modeling	PMDetail	Air Quality Modeling	NM Oil & Gas EI	Totals
1. Personnel	658,606	205,612	50,426	391	13,403	20,876	5,689	955,003
2. Fringe	157,390	45,788	8,567	68	2,212	3,376	1,000	218,402
3. Travel	600,423	64,353	4,641	0	3,293	2,205	1,025	675,941
4. Equipment	0	0	0	0	0	0	0	0
5. Supplies	0	0	0	0	0	0	0	0
6. Contractual	113,622	0	778,186 <sup>1</sup>	0	289,761	166,825	42,579	1,390,973
7. Construction	0	0	0	0	0	0	0	0
8. Other	379,120	145,109	3,172	0	1,580	4,976	0	533,957
9. Indirect	451,636	234,166	56,495	391	15,250	22,861	6,637	787,435
<b>Cumulative Expenses</b>	<b>2,360,798</b>	<b>695,028</b>	<b>901,487</b>	<b>850</b>	<b>325,499</b>	<b>221,120</b>	<b>56,931</b>	<b>4,561,712</b>
<b>Budget</b>	<b>2,428,647</b>	<b>2,761,500</b>	<b>951,373</b>	<b>214,500</b>	<b>441,095</b>	<b>240,000</b>	<b>110,000</b>	<b>7,147,115</b>
<b>Balance Avail</b>	<b>67,849</b>	<b>2,066,472</b>	<b>49,886</b>	<b>213,650</b>	<b>115,596</b>	<b>18,880</b>	<b>53,069</b>	<b>2,585,403</b>

<sup>1</sup> Cumulative total of \$389,422 drawn from advance for contractor expenses; advance balance = \$315,764

### Current Quarter Expenses by Object Class and Funding Source – All Active Accounts July 1, 2015 – September 30, 2015

	EPA	EPA	NPS	NM	BLM/JFSP	BLM	BLM	
Object Class	Core Grant 2011-2013	Core Grant 2014-2017	Task 2 3-State	Dona Ana Modeling	PMDetail	Air Quality Modeling	NM Oil & Gas EI	Totals
1. Personnel	7,089	46,293	11,036	391	1,905	2,777	3,978	73,470
2. Fringe Benefits	1,547	10,172	1,948	68	336	490	701	15,262
3. Travel	34,296	2,670	545	0	-271	376	1,025	38,641
4. Equipment	0	0	0	0	0	0	0	0
5. Supplies	0	0	0	0	0	0	0	0
6. Contractual	0	0	0 <sup>1</sup>	0	29,421	18,328	40,955	88,705
7. Construction	0	0	0	0	0	0	0	0
8. Other	17,249	16,666	375	0	80	32	0	34,401
9. Indirect	5,181	51,039	11,713	391	1,991	1,506	5,591	77,411
<b>Total Expenses</b>	<b>65,363</b>	<b>126,839</b>	<b>25,616</b>	<b>850</b>	<b>33,462</b>	<b>23,509</b>	<b>52,250</b>	<b>327,888</b>

<sup>1</sup> \$108,308 drawn from advance for contractor expenses during this reporting period