



WESTAR QUARTERLY REPORT

Reporting Period: 2nd Quarter 2016

Report Date: July 31, 2016

EPA Grant No. XA-00T82602

NPS Agreement No. P14AC00099

Task 2: P14AC01122-TA

Task 3: P15AC01632

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.

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1. 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>2016 Q2</i>	<i>Project Period Total</i>
27 Air director conference calls, documented with minutes posted on WESTAR’s website	3	18
6 Business meetings, documented with minutes and presentations posted on WESTAR’s website	1	4
120 Committee and ad hoc workgroup conference calls	10	105
12 Trips by committee chairs to brief air directors on committee activities	3	6
3 Specialty conference on a high priority topic	0	0
3 Meetings held to address emerging topics	0	1
9 Trips by committee representatives to attend national meetings and report back to WESTAR membership	1	5

2) Other Activities this Quarter – Operations Project

-WESTAR continued to engage with NESCAUM and EPA on the development of a cord wood test method.

-WESTAR presented testimony on the Regional Haze Rule proposal and the WESTAR Regional Haze work group began analyzing the rule changes proposed by EPA and drafting comments.

The WESTAR work group on background ozone met during the quarter via conference call to discuss WESTAR comments to EPA. WESTAR submitted comments on background ozone to EPA.

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>2016 Q2</i>	<i>Project Period Total</i>
69 Educational opportunities developed and delivered:	2	36
* Monitoring Compliance Testing (Helena, MT)		
* Monitoring Compliance Testing (Bismarck, ND)		
1800 Students trained	30	940
3450 Student training days	136	2073
1 Training course developed/updated	0	0

2) Other Activities this Quarter – Training Project

* WESTAR staff continues to work with EPA and other MJOs on the design, development and update of various APTI training courses including quality assurance/quality control, oil and gas, and state implementation plan (SIP 101).

* 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 staff continues to serve as a member 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 serves on numerous committees 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>	<u>Results/Outcomes</u>	
	<i>2016 Q2</i>	<i>Project Period Total</i>
15 Regional technical analysis/planning conference calls	3	25
12 Technical Steering Committee conference calls	3	16
6 Face-to-face WRAP Board meetings	0	2

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
- The WRAP Technical Steering Committee began formally meeting on a regular basis.
- The 2016 Annual WRAP Workplan developed by the Technical Steering Committee was adopted by the WRAP Board on May 9, 2016, posted [here](#).
- Work began to implement the Workplan, consisting of forming Work Groups and planning for a WRAP Technical Meeting in October 2016 where the Steering Committee and Work Groups will begin developing the 2017 Annual WRAP Workplan.
- WRAP presented testimony on the Regional Haze Rule proposal and began analyzing the rule changes proposed by EPA and drafting comments.

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.

**EPA Core Grant 2014-16
Cumulative Grant Awards by Project through 6/30/2016**

Project Title	Total Anticipated Project Period Cost	Total Awards Project Period to Date as of 6/30/2016¹	Percentage
Operations	840,000	549,868	65%
Training	1,102,500	732,555	66%
WRAP Support	457,452	304,968	66%
State Travel Support	361,548	215,304	60%
Totals	2,761,500	1,805,140	65%

¹ Rescission imposed in 2015Q4 reduced the total awards to-date by \$3,459

**EPA Core Grant 2014-16
Expenses by Object Class through 6/30/2016**

Object Class	Budget	This Quarter	Cumulative Expenses	Percentage
1. Personnel	657,106	63,889	367,209	56%
2. Fringe Benefits	178,098	14,520	83,388	47%
3. Travel	731,738	42,252	194,582	27%
4. Equipment	0	0	0	
5. Supplies	0	0	0	
6. Contractual	105,000	11,309	11,309	11%
7. Construction	0	0	0	
8. Other	338,488	49,317	255,303	75%
9. Indirect Expenses	751,070	67,636	441,762	59%
Totals	2,761,500	248,924	1,353,553	49%

2. 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)

This Task 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.
- Assisted with organization, provided staff support for, and attended the June 7th Governing Board meeting.

- Participated in calls with EPA Region 8 and NPS staff for transition from NPS to EPA as the “lead agency” for the IWDW. The lead agency manages the meetings of the Governing Board and Oversight Committee and provides general project coordination on behalf of the Cooperating Agencies. Separately, the NPS will continue to provide technical direction and funding to WESTAR/WRAP.

Activities related to coordinating the efforts of the NPS, IWDW-WAQS 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 2nd quarter 2016.
- 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 IWDW-WAQS:

- 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 Ramboll-Environ.

Summary of Work Plan Activities

<i>Expected Results for Project Period</i>	<i>Results/Outcomes</i>	
	<i>2016 Q2</i>	<i>Project-to-date</i>
6 Conference calls or meetings with Governing Board or Steering Committee	1	8
5 Face-to-face meetings	2	11
4 Technical milestones requiring special communication effort	0	18

Activities related to air quality modeling for the Study region:

- Regional modeling study analysis for the 2011 version B modeling platform was completed and scheduled for release in April 2016.
- Work on tasks under the Oct. 2014 through June 2016 Scope of Work was completed by Ramboll-Environ and UNC.
- 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 6/30/2016**

Object Class	Budget	This Quarter	Cumulative Expenses	Percentage
1. Personnel	75,493	3,116	72,183	96%
2. Fringe Benefits	16,553	584	12,355	75%
3. Travel	2,192	268	6,615	302%
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	314	4,047	117%
9. Indirect Expenses	75,493	-10,541	70,920	94%
Totals	951,373	-6,258	944,306	99%

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

Project Contractor	Advance Received	This Quarter	Cumulative Expenses	Balance
Environ	705,186	147,730	701,820	3,366
St of Utah	73,000	0	73,000	0
	778,186	147,730	774,820	3,366

TASK 3: Intermountain West Data Warehouse – Western Air Quality Study (IWDW-WAQS) (P14AC01122)

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 agencies sponsoring the IWDW-WAQS for the federal and state agencies cooperating through the IWDW memorandum of understanding. The IWDW project builds upon and expands the Three-State Data Warehouse supported in Task 2. The IWDW and associated Western Air Quality Study (WAQS) modeling effort have the following shared 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 IWDW-WAQS 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 IWDW–WAQS 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 IWDW–WAQS.

WESTAR/WRAP staff serve as project coordinator for the IWDW-WAQS.

a. Activity Summary

Beyond minor travel expenses in the 1st quarter 2016, work under this Task Agreement began at the completion of Task 2 in May 2016 and greater use of Task 3 funds to coordinate the IWDW-WAQS project began in the 2nd quarter 2016.

a. Budget Summary and Status

**NPS Cooperative Agreement
Task 3 – Three State Air Quality Study # P15AC01632
Expenses by Object Class through 6/30/2016**

Object Class	Budget	This Quarter	Cumulative Expenses	Percentage
1. Personnel	8,070	6,239	6,239	77%
2. Fringe Benefits	1,769	1,052	1,052	59%
3. Travel	4,002	0	735	18%
4. Equipment	0	0	0	
5. Supplies	0	0	0	
6. Contractual	482,381	14,510	14,510	3%
7. Construction	0	0	0	
8. Other	0	0	0	
9. Indirect Expenses	9,279	20,501	20,501	221%
Totals	505,501	42,301	43,036	9%

¹ WESTAR has drawn the total amount of the agreement as an advance.

3. 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 December 2015, WESTAR made a request to JFSP to extend the end date of the project and grant to allow completion of the filter sample analyses and align with an extension in the IWDW-WAQS modeling schedule reported in the WESTAR Quarterly Report for the 3rd quarter 2015 under the NPS Cooperative Agreement. The modeling work for PMDetail is leveraged with the IWDW-WAQS. An updated summary of the deliverables and schedule to complete the PMDetail project resulting from the extension request is 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 [Summersummer](#) 2015. 2011 and future episodes will be completed in [Springspring](#) 2016.

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 [Springspring](#) 2016.

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

Delivery Dates: Spring 2016 – 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: Summer 2016

Progress and results of the PMDETAIL study, including the fire emissions inventory capabilities of WRAP Tools were solicited and presented at the EPA Region 10-sponsored Smoke Management Meeting in Spokane, WA in March 2016. The PMDETAIL project team was also solicited to provide and has prepared a syllabus for an 8-hour training on the PMDETAIL and DEASCO₃ studies’ results, data, and tools as part of WRAP Tools, for analysis of fire impacts on PM, Ozone, Regional Haze, and Exceptional Events. This training will be conducted at the 2nd International Smoke Symposium in mid-November 2016.

c. 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 6/30/2016**

Object Class	Budget	This Quarter	Cumulative Expenses	Percentage
1. Personnel	14,449	0	14,019	97%
2. Fringe Benefits	2,041	0	2,322	114%
3. Travel	1,900	0	3,293	173%
4. Equipment	0	0	0	
5. Supplies	0	0	0	
6. Contractual	400,039	23,083	384,812	96%
7. Construction	0	0	0	
8. Other	7,455	0	1,610	22%
9. Indirect Expenses	15,211	0	15,914	105%
Totals	441,095	23,083	421,969	96%

4. 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 NO₂ impacts from drilling operations. In addition, sufficient data would be collected regarding drilling operations that could be used to verify NO₂ 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. In November 2015, API provided additional funding resources for contractor analysis of the Alaska field sampling data.

a. Activity Summary

Activities this quarter included:

- The WESTAR/WRAP contract employee completed the evaluation of the Alaska and Colorado field sampling data and reports, and coordinated overall Study activities.
- AMEC Foster Wheeler prepared a report and addressed comments on the report, which further quality assures, processes, and formats Alaska field sampling data for subsequent model evaluation studies.
- The WESTAR/WRAP contract employee organized 4 volunteer Model Evaluation Workgroup Teams and prepared a Study Summary Report as of May 2016.
- The [Drill Rig 1-hour NO₂ 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 NO₂ Monitoring Study
BLM Cooperative Agreement # L14AC00077
Expenses by Object Class through 6/30/2016**

Object Class	Budget	This Quarter	Cumulative	
			Expenses	Percentage
1. Personnel	16,800	0	22,818	136%
2. Fringe Benefits	6,222	0	3,721	60%
3. Travel	8,426	0	2,205	26%
4. Equipment	0	0	0	
5. Supplies	0	0	0	
6. Contractual	188,244	1,260	181,034	96%
7. Construction	0	0	0	
8. Other	1,463	9	5,101	349%
9. Indirect Expenses	18,845	0	25,102	133%
Totals	240,000	1,269	239,981	100%

**BLM Air Quality Modeling Western States
Including Continuing Work on Drill Rig NO2 Monitoring Study
American Petroleum Institute (API) Funding
Expenses by Object Class through 6/30/2016**

Oil Gas	Object Class	Budget	This Quarter	Cumulative		and
				Expenses	Percentage	
	1. Personnel	3,444	3,444	3,444	100%	
	2. Fringe Benefits	469	469	469	100%	
	3. Travel	0	0	0		
	4. Equipment	0	0	0		
	5. Supplies	0	0	0		
	6. Contractual	266,759	261,549	261,549	98%	
	7. Construction	0	0	0		
	8. Other	0	0	0		
	9. Indirect Expenses	4,328	4,328	4,328	100%	
	Totals	275,000	269,790	269,790	98%	

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 (NOx, CO, VOCs, PM and SOx) and greenhouse gases (CO2, CH4, and N2O). 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 from Ranked List of Operators from Production Statistics, Contacts from Agencies
 ○ Schedule and Hold Outreach Calls/Meetings June 2015
- Distribute Survey Instruments and Agency Queries
 ○ Hold additional outreach calls September 2015
- Agencies & Companies Complete/Submit Query Response November 2015
- Complete Draft and Final Memoranda/Spreadsheets July 2016

The remaining project work and end date is being reorganized and will be updated in the 3rd quarter 2016 report.

The project website is found at: <http://www.wrapair2.org/SanJuanPermian.aspx>.

b. 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 6/30/2016**

Object Class	Budget	This Quarter	Cumulative Expenses	Percentage
1. Personnel	6,190	0	7,518	121%
2. Fringe Benefits	1,780	0	1,326	75%
3. Travel	1,497	0	1,025	68%
4. Equipment		0	0	
5. Supplies		0	0	
6. Contractual	92,950	13,791	81,319	87%
7. Construction		0	0	
8. Other		0	0	
9. Indirect Expenses	7,583	0	8,685	115%
Totals	110,000	13,791	99,873	91%

5. NEW MEXICO DONA ANA COUNTY OZONE 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 2015-16 under the IWDW-WAQS effort.

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. Project results are available on the project website at: <http://www.wrapair2.org/SNMOS.aspx>.

a. Activity Summary

The work elements for this project include the following:

No.	Deliverable	Due Date
1	Work plan and PowerPoint presentation of Weather Research Forecast (WRF) Meteorological Modeling Application/Evaluation Report	Completed 11/30/15
2	PowerPoint presentation on Permian Basin oil and gas 2011 and future year emission update.	

No.	Deliverable	Due Date
3	PowerPoint presentation on Mexico emissions to be used in 2011 base and future year modeling.	
4	Technical memo for 2011 base year base case emissions modeling prepared with SMOKE.	Completed 2/29/16
5	PowerPoint presentation on results of natural emissions modeling.	
6	PowerPoint presentation on the base year air quality modeling.	
7	Base case modeling and model performance evaluation report.	Completed 4/30/16
8	PowerPoint presentations on future year emissions modeling.	Completed 5/31/16
9	PowerPoint presentation on future year air quality modeling.	
10	PowerPoint presentation on future year ozone projections.	
11	PowerPoint presentation on future year emissions sensitivity modeling.	8/15/16
12	PowerPoint presentation and interactive Excel spreadsheets on future year ozone source apportionment modeling.	9/15/16
13	Draft Technical Support Document (TSD), final TSD, and Response to Comments (RtC) document for NMED. Modeling data, RtC document, and final TSD also posted on WAQS data warehouse.	11/18/16

Outreach and progress report calls on the study were held on June 10th with NM Air Quality Bureau and EPA Region 6 staff and also with NM Air Quality Bureau staff, state and local representatives from Texas and the El Paso area, and from the nation of Mexico on June 29th.

b. Budget summary and status

**New Mexico Dona Ana Modeling Project
NM P.O. #66700-0000025413
Expenses by Object Class through 6/30/2016**

Object Class	Budget	This Quarter	Cumulative	
			Expenses	Percentage
1. Personnel	5,000	1,175	3,816	76%
2. Fringe Benefits	1,000	203	659	66%
3. Travel	0	0	0	
4. Equipment	0	0	0	
5. Supplies	0	0	0	
6. Contractual	202,500	90,500	133,500	66%
7. Construction	0	0	0	
8. Other	0	0	0	
9. Indirect Expenses	6,000	1,454	4,838	81%
Totals	214,500	93,332	142,814	67%

6. OTHER SIGNIFICANT ACTIVITIES

7. CONSOLIDATED EXPENSE SUMMARY

Cumulative Expenses by Object Class and Funding Source through 6/30/2016 All Active Accounts

	EPA	EPA Fire NEI	NPS	NPS	NM	BLM/JFSP	BLM	BLM	
Object Class	Core Grant 2014-16	FETS 2014	Task 2 3-State ¹	Task 3 3-State	Dona Ana Modeling	PMDETAIL	Air Quality Modeling	NM Oil & Gas EI	Totals
1. Personnel	367,209	232	72,183	6,239	3,816	14,019	22,818	7,518	494,033
2. Fringe	83,388	40	12,355	1,052	659	2,322	3,721	1,326	104,864
3. Travel	194,582	0	6,615	735	0	3,293	2,205	1,025	208,455
4. Equipment	0	0	0	0	0	0	0	0	0
5. Supplies	0	0	0	0	0	0	0	0	0
6. Contractual	11,309	6,437	778,186	14,510	133,500	384,812	181,034	81,319	1,591,108
7. Construction	0	0	0	0	0	0	0	0	0
8. Other	255,303	0	4,047	0	0	1,610	5,101	0	266,061
9. Indirect	441,762	0	70,920	20,501	4,838	15,914	25,102	8,685	587,722
Cumulative Expenses	1,353,553	6,710	944,306	43,036	142,814	421,969	239,981	99,873	3,252,243
Budget	2,761,500	7,000	951,373	505,501	214,500	441,095	240,000	110,000	5,230,969
Balance Avail	1,407,947	290	7,067	462,465	71,686	19,126	19	10,127	1,978,726

¹ Cumulative total of \$774,820 drawn from advance for contractor expenses; advance balance = \$3,366

Current Quarter Expenses by Object Class and Funding Source – All Active Accounts

	EPA	EPA Fire NEI	NPS	NPS	NM	BLM/JFSP	BLM	BLM	
Object Class	Core Grant 2014-2017	FETS 2014	Task 2 3-State	Task 3 3-State	Dona Ana Modeling	PMDETAIL	Air Quality Modeling	NM Oil & Gas EI	Totals
1. Personnel	63,889	0	3,116	6,239	1,175	0	0	0	74,419
2. Fringe Benefits	14,520	1	584	1,052	203	0	0	0	16,360
3. Travel	42,252	0	268	0	0	0	0	0	42,520
4. Equipment	0	0	0	0	0	0	0	0	0
5. Supplies	0	0	0	0	0	0	0	0	0
6. Contractual	11,309	6,437	0	14,510	90,500	23,083	1,260	13,791	160,891
7. Construction	0	0	0	0	0	0	0	0	0
8. Other	49,317	-272	314	0	0	0	9	0	49,368
9. Indirect	67,636	0	-10,541	20,501	1,454	0	0	0	79,050
Total Expenses	248,924	6,166	-6,258	42,301	93,332	23,083	1,269	13,791	422,607