



WESTAR QUARTERLY REPORT

Reporting Period: 1st quarter 2019
Report Date: April 30, 2019
EPA Grants No.
XA-99T67301-0
NPS Agreement No. Task 3:
P15AC01632
Task 4: P16AC01109
Task 5: P18AC01186
BLM Agreement No. L14AC00077
BLM Agreement No. L16AP00004
API Contract No. 2016-110934

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:

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1. EPA CORE GRANT 2017-2019

Note: Work on activities and spending against this grant began December 2017.

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 (October 1, 2017) through the end of the most recent quarter.

EPA Core Grant 2017-19 Expenses by Object Class through 3/31/2019

| Object Class | Budget | This Quarter | Cumulative Expenses | Percentage |
|----------------------|------------------|---------------------|--------------------------------|-------------------|
| 1. Personnel | 837,060 | 97,314 | 449,874 | 54% |
| 2. Fringe Benefits | 252,117 | 25,685 | 117,993 | 47% |
| 3. Travel | 762,400 | 14,523 | 188,199 | 25% |
| 4. Equipment | 0 | 0 | 0 | |
| 5. Supplies | 0 | 0 | 0 | |
| 6. Contractual | 1,040,851 | 130,562 | 319,934 | 31% |
| 7. Construction | 0 | 0 | 0 | |
| 8. Other | 397,561 | 31,057 | 232,027 | 58% |
| 9. Indirect Expenses | 1,138,717 | 95,761 | 462,831 | 41% |
| Totals | 4,428,706 | 394,903 | 1,770,857 | 40% |

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> | <u>Results/Outcomes</u> | |
|---|-------------------------|---------------------------------|
| | <i>2019 Q1</i> | <i>Project Period Total</i> |
| 27 Air director conference calls, documented with minutes posted on WESTAR's website | 3 | 13 |

| | | | |
|-----|---|---|----|
| 6 | Business meetings, documented with minutes and presentations posted on WESTAR's website | 0 | 2 |
| 105 | Committee and ad hoc workgroup conference calls | 9 | 58 |
| 12 | Trips by committee chairs to brief air directors on committee activities | 0 | 4 |
| 3 | Specialty conference on a high priority topic | 0 | 0 |
| 3 | Meetings held to address emerging topics | 2 | 3 |
| 9 | Trips by committee representatives to attend national meetings and report back to WESTAR membership | 0 | 1 |

2) Other Activities this Quarter – Operations Project

* WESTAR commented on the NPRM for the Residential Wood Heating Device NSPS.

*WESTAR commented on the ANPRM for the Residential Wood Heating Device NSPS.

*WESTAR, with contractor support, convened two meetings with air quality agencies and land managers to share information and perspectives on prescribed fire and air quality with the goal of enhancing future collaboration and improving air quality and land management objectives

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>2019 Q1</i> | <i>Project Period Total</i> |
| 60 Educational opportunities developed and delivered: | 5 | 18 |
| * Nevada: Permitting Practices & Procedures (NACT 334) | | |
| * Nevada: Boilers (NACT 273) | | |
| * Nevada: Incinerators (NACT 270) | | |
| * Nevada: Engines (NACT 271) | | |
| * Nevada: Landfill Gas Control Facilities (NACT 285) | | |
| * Cancelled because of Federal government shutdown | | |
| Arizona: Cement Plants (NACT 245) | | |
| Arizona: Aggregate, Concrete & Hot Mix Asphalt (NACT 246) | | |
| Arizona: Compliance Assurance Monitoring (NACT 220) | | |
| 1800 Students trained | 146 | 495 |
| 3450 Student training days | 198 | 1299 |
| 1 Training course developed/updated | 0 | 0 |

Other Activities this Quarter – Training Project

* WESTAR staff continues to work with state, local and tribal air quality government agencies in the Western United States to identify each agency’s most important training needs for calendar year 2019. WESTAR’s upcoming year’s training schedule is developed based on these needs.

* WESTAR staff serves as a member on the Joint Training Committee (JTC) Steering Committee. The Steering Committee oversees the operations of four work groups by providing guidance, evaluating resource needs, identifies priorities, assigns projects, provides assessments, and fosters communication. The four work groups are: 1) Planning & Support; 2) Curriculum; 3) Training Delivery; and 4) Learning Management Systems (LMS)

* WESTAR staff is a co-lead for the Training Delivery work group.

* WESTAR staff is a committee member on the three other work groups including Planning & Support, Curriculum, and LMS.

* WESTAR is involved with the training committees at AAPCA, NACAA, and EPA’s Joint Training Committee (JTC).

* WESTAR staff participates on bi-monthly conference calls with the APTI-Learn.net Maintenance, Operation and Enhancement Team to identify improvement and enhancement opportunities, and provide recommendations to enhance the user’s experience with APTI-Learn website.

* WESTAR staff is a current member of EPA’s ad hoc Access Database team charged with identifying the structure, process and methodology of creating a comprehensive database to be populated with training information such as but not limited to title, course descriptions, course instructor contact information, date of last update, and course materials to be used by state, local and tribal agency staff.

* WESTAR an active member of EPA’s Continuous Emissions Monitoring (CEM) work group which is charged with updating APTI 474.

* WESTAR staff serves as work group lead on the CEMS sub-Work Group #1.

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>2019 Q1</i> | <i>Project Period Total</i> |
| 75 Workgroup Conference calls | 16 | 96 |
| 30 Technical Steering Committee conference calls | 3 | 16 |
| 6 Face-to-face WRAP Board meetings | 0 | 2 |
| 30 Travel support provided to local agency and tribal WRAP Board members | 0 | 10 |
| 3 Technical Steering Committee Face-to-face meetings | 1 | 3 |
| 30 WRAP Board calls | 3 | 13 |

2) Other Activities this Quarter – Regional Technical Support Project

- The WRAP Regional Technical Center is being implemented through the [Intermountain West Data Warehouse](#) (IWDW), linked with the [Technical Support System v2](#) and delivering the modeling results from the Western Air Quality Study, providing access to air quality data of all types and results from regional modeling studies, as described in the [WRAP 2018-19 Workplan update](#).
- 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. The IWDW is also hosting and distributing the [2016 National Emissions Modeling Platform Collaborative “beta” version](#) and associated data files.
- Dissemination of reports from projects, meetings, and calls, as well as data and summary results were also conducted via the [WRAP](#) website.
- The WRAP Technical Steering Committee and 5 Work Groups (Fire & Smoke, Oil & Gas, Regional Technical Operations, Tribal Data, and Regional Haze Planning) under their direction met regularly.
- Significant progress continues on implementation of the 2018-19 WRAP Workplan, including a Workplan update completed with Board approval on April 3, 2019. The Technical Steering Committee and Co-Chairs of WRAP Work Groups and Subcommittees meet monthly on a Coordination call.

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)

This Task was completed on 6/30/2016.

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. Tasks 3, 4, and 5 continue seamlessly from the end of 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.

a. Activity Summary

Work during this quarter focused on completion of the 2014 Shakeout Modeling Platform v1 regional modeling effort as described in the [WRAP 2018-19 Workplan update](#) in alignment with the outline of the Fall 2018 IWDW-WAQS Cooperator Workplan approved by the Oversight Committee and Governing Board.

Summary of Work Plan Activities

| <i>Expected Results for Project Period</i> | <u>Results/Outcomes</u> | |
|---|-------------------------|------------------------|
| | <i>2019 Q1</i> | <i>Project-to-date</i> |
| 6 Conference calls or meetings with Governing Board or Oversight Committee | 0 | 30 |
| 5 Face-to-face meetings | 0 | 25 |
| 4 Technical milestones requiring special communication effort | 1 | 31 |

b. Budget Summary and Status

**NPS Cooperative Agreement
Task 3 – Three State Air Quality Study # P15AC01632
Expenses by Object Class through 3/31/2019**

| Object Class | Budget¹ | This Quarter | Cumulative Expenses | Percentage |
|----------------------|---------------------------|---------------------|----------------------------|-------------------|
| 1. Personnel | 8,070 | 0 | 7,728 | 96% |
| 2. Fringe Benefits | 1,769 | 0 | 1,302 | 74% |
| 3. Travel | 4,002 | 0 | 1,292 | 32% |
| 4. Equipment | 0 | 0 | 0 | |
| 5. Supplies | 0 | 0 | 0 | |
| 6. Contractual | 470,041 | 8,574 | 173,072 | 37% |
| 7. Construction | 0 | 0 | 0 | |
| 8. Other | 0 | 0 | 55 | |
| 9. Indirect Expenses | 21,619 | 0 | 20,134 | 93% |
| Totals | 505,501 | 8,574 | 203,583 | 40% |

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

TASK 4: Intermountain West Data Warehouse-Western Air Quality Study (IWDW-WAQS) (P16AC011099)

Under this Task Agreement, WESTAR/WRAP serves as the project coordinator for the IWDW-WAQS effort and performs technical tasks through contractors to include:

- Emission inventory development for oil and gas sources and applications of best available data for all other source categories;
- Air quality modeling for base year 2014 including development of model evaluation and model runs for 2014 base year and future years;
- Support and coordination of IWDW operations and maintenance;
- Assistance in education and outreach to stakeholders and the public.

WESTAR/WRAP staff serve as project coordinator for the IWDW-WAQS, at 0.20 FTE time.

a. Activity Summary

2014 Shakeout Modeling Platform v1 work was completed and drafting of the statement of work for the next increment of 2014-based regional modeling is underway to utilize the contractual resources in this task, as described in the [March 27, 2019 Modeling Plan](#). The 2014 base year and future projections modeling platform is a joint project with the WESTAR-WRAP Regional Haze analysis and planning project as described in the [WRAP 2018-19 Workplan update](#).

Results/Outcomes

| <i>Expected Results for Project Period</i> | <i>2019 Q1</i> | <i>Project-to-date</i> |
|--|----------------|------------------------|
| 1 Contract for emission inventory development and 2014 / future year modeling | 1 | 3 |
| 6 Quarterly support and coordination for IWDW | 1 | 20 |
| 1 Outreach assistance | 1 | 19 |

b. Budget Summary and Status

**NPS Cooperative Agreement
Task 4 – Three State Air Quality Study # P1601109
Expenses by Object Class through 3/31/2019**

| Object Class | Budget¹ | This Quarter | Cumulative Expenses | Percentage |
|----------------------|---------------------------|---------------------|----------------------------|-------------------|
| 1. Personnel | 44,959 | 2,075 | 68,072 | 151% |
| 2. Fringe Benefits | 12,664 | 564 | 14,605 | 115% |
| 3. Travel | 4,400 | 0 | 45 | 1% |
| 4. Equipment | 0 | 0 | 0 | |
| 5. Supplies | 0 | 0 | 0 | |
| 6. Contractual | 117,292 | 0 | 100,576 | 86% |
| 7. Construction | 0 | 0 | 0 | |
| 8. Other | 1,000 | 0 | 460 | 46% |
| 9. Indirect Expenses | 54,571 | -2,639 | 51,128 | 94% |
| Totals | 234,886 | 0 | 234,886 | 100% |

¹ WESTAR has drawn \$234,886 of the agreement as an advance.

TASK 5: Intermountain West Data Warehouse-Western Air Quality Study (IWDW-WAQS) P18AC01186

Under this Task Agreement, WESTAR/WRAP serves as the project coordinator for the Western Air Quality Study and performs technical tasks through contractors to include:

- Emission inventory development for oil and gas sources;
- Air quality modeling for base year 2014 and/or 2016 including preliminary assessment of an approach for establishing boundary conditions;
- Support and coordination of IWDW operations and maintenance;
- Assistance in education and outreach to stakeholders and the public;
- Organization and participation in meetings, webinars and conference calls.

WESTAR/WRAP staff serve as project coordinator for the IWDW-WAQS, at 0.20 FTE time.

a. Activity Summary

Contractual resources from this task will be used to implement the statement of work mentioned in Tasks 3 and 4, above, for the next increment of 2014-based regional modeling as described in the [March 27, 2019 Modeling Plan](#).

**NPS Cooperative Agreement
Task 5 – Three State Air Quality Study # P18AC01186
Expenses by Object Class through 3/31/2019**

| Object Class | Budget | This Quarter | Cumulative Expenses | Percentage |
|----------------------|----------------|---------------------|----------------------------|-------------------|
| 1. Personnel | 62,748 | 7,043 | 10,150 | 16% |
| 2. Fringe Benefits | 12,468 | 1,402 | 2,246 | 18% |
| 3. Travel | 5,000 | 0 | 0 | 0% |
| 4. Equipment | 0 | 0 | 0 | |
| 5. Supplies | 0 | 0 | 0 | |
| 6. Contractual | 183,037 | 0 | 0 | 0% |
| 7. Construction | 0 | 0 | 0 | |
| 8. Other | 0 | 0 | 0 | |
| 9. Indirect Expenses | 42,497 | 3,291 | 4,921 | 12% |
| Totals | 305,750 | 11,736 | 17,316 | 6% |

3. BLM AIR QUALITY MODELING WESTERN STATES PROJECT

There are currently 2 activity areas under this project:

- 3.1 a Drill Rig NO2 Monitoring Study, and
- 3.2 an Oil & Gas Emission Inventory Update Study for the Greater San Juan and Permian Basins.

3.1 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. In mid-Sept. 2016, an additional \$60,000 was awarded to be able to complete additional analyses of the field sampling data specifically from the Colorado study sites and to support facilitation of continued evaluation by volunteer technical workgroups of both the Alaska and Colorado field study data.

a. Activity Summary

Activities in the first quarter of 2019 include:

- The [Drill Rig 1-hour NO₂ Collaborative Monitoring Study](#) project webpage has been updated on a regular basis, as needed.
- Work through contracted support continues and is almost complete for additional technical analysis and project mgmt. activities. This work is to be completed in the second calendar quarter of 2019.
- The contracted support work is in use by EPA-led work groups of BLM, state, and interested parties are preparing peer-reviewed journal articles of the Alaska and Colorado field studies' results.
- Additional project mgmt. activities were executed, including regular communication with the Study Mgmt. Team and routine calls and coordination of the 2 EPA-organized data review teams.

b. Budget Summary and Status

The BLM initial and supplemental funding received in 2014 enabled the 2014-15 Study work and provides staff support to the entire Study. Funding for WESTAR personnel and field sampling data analysis contract support by BLM and the field sampling and data analysis contract support from API are the combined funding for this project. WESTAR-WRAP are using the funds received in Sept. 2016 to complete the field sampling data analysis phase of the project, the work able to be completed and the resources will be exhausted in the second calendar quarter of 2019.

**BLM Air Quality Modeling Western States
Including Continuing Work on Drill Rig NO2 Monitoring Study
BLM Cooperative Agreement # L14AC00077
Expenses by Object Class through 3/31/2019**

| 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 | 9,832 | 0 | 2,205 | 22% |
| 4. Equipment | 0 | 0 | 0 | |
| 5. Supplies | 0 | 0 | 0 | |
| 6. Contractual | 246,838 | 10,032 | 231,670 | 94% |
| 7. Construction | 0 | 0 | 0 | |
| 8. Other | 1,463 | 0 | 5,101 | 349% |
| 9. Indirect Expenses | 18,845 | 0 | 32,795 | 174% |
| Totals | 300,000 | 10,032 | 298,310 | 99% |

**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 3/31/2019**

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

4. BLM-NM AIR QUALITY MODELING

Activity Summary

WESTAR and WRAP and the New Mexico Environment Department (NMED) have worked together to develop this proposal to fund ozone modeling and visibility analysis for the Four Corners area. NMED has been working with WESTAR, WRAP, and the BLM for several years on characterizing air quality in the Four Corners region and will partner with WESTAR and WRAP on this study to obtain more recent analyses of ozone and visibility in the region.

Oil and Gas (O&G) development in the inter-mountain western United States has undergone rapid increases over the last decade. The San Juan Basin in New Mexico and Colorado is a major natural gas production basin and has over 20,000 wells; while O&G production in the San Juan Basin has declined in recent years, the future development of the Mancos Shale formation represents a source of potential growth of O&G production in the basin. O&G development releases emissions of oxides of nitrogen (NO_x), volatile organic compounds (VOCs), carbon monoxide (CO), sulfur dioxide (SO₂), hazardous air pollutants (HAPs) and greenhouse gases (GHG). These emissions can lead to elevated air pollution levels that may threaten National Ambient Air Quality Standards (NAAQS), cause HAPs levels that may cause health effects, and have potential adverse effects on air quality related values (AQRVs), which include visibility and acid deposition. To address these potential air quality and AQRV impacts requires accurate and [comprehensive emissions inventory of O&G sources](#) followed by air quality modeling and planning.

In response to these challenges, the affected states, tribes and federal land managers in the region came together and formed the Four Corners Air Quality Task Force to develop control strategies for future air quality impacts from development. In addition to Colorado and New Mexico, other participating agencies include the Navajo Nation Environmental Protection Agency; the Southern Ute Indian Tribe Air Quality Program; the U.S. Environmental Protection Agency (EPA); the U.S. Department of Interior - Bureau of Land Management (BLM) and National Park Service; the U.S. Department of Agriculture - Forest Service (USFS); the U.S. Department of Energy; and the State of Utah. The Task Force included more than 100 members and 150 interested parties. Members included private citizens, representatives from public interest groups, universities, and industry, and federal, state, tribal and local governments. The O&G industry was a major participant in the Task Force with over 50 representatives.

In this Study, the NMED now needs projected emissions modeling and analysis on future year scenarios for ozone and AQRV impacts associated with O&G development in the region. WESTAR and WRAP is leading an effort to develop a new base and projection years' modeling platform for the Western United States, and NMED recommends the use of the WESTAR-WRAP modeling platform for their ozone and AQRV analyses at the time it is ready for those analyses. The platforms developed by WESTAR and WRAP for the IWDW-WAQS cooperating agencies including the 2014 baseline inventory can be used as a starting point to do a future year 2023 modeling analysis for ozone and AQRV for the Four Corners area. 2023 is a significant date for air quality planning in the West since it is the first attainment date under the 2015 Ozone standard for all nonattainment areas (to be designated by October 2018) across the country. The objective of this work is to develop several 2023 modeling runs and a 4-factor analysis for AQRVs for that year and for 2028 as an optional task. This work will allow the NMED and other cooperating agencies within the IWDW-WAQS to obtain more accurate air quality and AQRV

impact assessments due to current and future O&G development activities in New Mexico and will be an essential resource for NMED’s air quality planning efforts.

Now that base and projection year Oil & Gas emissions for the Greater San Juan Basin are complete, WESTAR and WRAP will leverage the next modeling platform from the IWDW-WAQS and utilize contractor support to conduct the 4-factor analyses. Resources for this study in the amount of \$40,000 were awarded in late Sept. 2016. This work is leveraged against the next generation of the IWDW-WAQS base and projection years’ modeling platform. The 2014 Shakeout Modeling Platform v1 effort has been completed as mentioned in NPS Tasks 3 and 4, above. The next increment of 2014-based regional modeling is underway to utilize the contractual resources in this BLM task, as described in the [March 27, 2019 Modeling Plan](#).

- Apply contractual resources in this task for base case and sensitivity test inventories in Shakeout Modeling platform

a. Budget Summary and Status

**BLM-NM Air Quality Modeling - Four Corners
BLM Cooperative Agreement # L16AP00004
Expenses by Object Class through 3/31/2019**

| Object Class | Budget | This Quarter | Cumulative Expenses | Percentage |
|----------------------|---------------|---------------------|----------------------------|-------------------|
| 1. Personnel | 0 | 0 | 0 | |
| 2. Fringe Benefits | 0 | 0 | 0 | |
| 3. Travel | 0 | 0 | 0 | |
| 4. Equipment | 0 | 0 | 0 | |
| 5. Supplies | 0 | 0 | 0 | |
| 6. Contractual | 40,000 | 0 | 0 | 0% |
| 7. Construction | 0 | 0 | 0 | |
| 8. Other | 0 | 0 | 0 | |
| 9. Indirect Expenses | 0 | 0 | 0 | |
| Totals | 40,000 | 0 | 0 | 0% |

5. OTHER SIGNIFICANT ACTIVITIES

WESTAR co-chairs the Federal/State Technical Work Collaboration Group and organizes monthly and quarterly conference calls to share information about EPA and MJO technical work.

WESTAR and state staff from several member agencies are participating in Workgroups to develop the 2016 National Emissions Modeling Platform Collaborative effort, particularly for Oil & Gas, Fire, as well as other sectors' workgroups. Information is at: <http://views.cira.colostate.edu/wiki/wiki/9169>

WESTAR-WRAP staff and representatives of member agencies participate on calls of the Tiger Teams for Regional Haze and Background Ozone, sponsored by the NASA Health and Air Quality Applied Sciences Team (HAQAST).

Work sponsored by the Western Energy Supply and Transmission (WEST) Associates was completed by WESTAR-WRAP, to [verify base year and project future emissions data for fossil-fueled electrical generating units](#), for Regional Haze and other air quality planning in the WESTAR-WRAP region was completed.

WESTAR-WRAP staff completed site visits to western state air programs' offices to discuss and support each state's needs for Regional Haze analysis and planning.

6. CONSOLIDATED EXPENSE SUMMARY

Cumulative Expenses by Object Class and Funding Source through 3/31/2019 All Active Accounts

| Object Class | EPA | NPS | NPS | NPS | BLM | BLM | Totals |
|----------------------------|--------------------|----------------|----------------|----------------|----------------|---------------|------------------|
| | Core Grant 2017-19 | Task 3 3-State | Task 4 3-State | Task 5 3-State | Drill Rig AQM | 4 Corners AQM | |
| 1. Personnel | 449,874 | 7,728 | 68,072 | 10,150 | 22,818 | 0 | 558,640 |
| 2. Fringe | 117,993 | 1,302 | 14,605 | 2,246 | 3,721 | 0 | 139,867 |
| 3. Travel | 188,199 | 1,292 | 45 | 0 | 2,205 | 0 | 191,741 |
| 4. Equipment | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5. Supplies | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6. Contractual | 319,934 | 173,072 | 100,576 | 0 | 231,670 | 0 | 825,252 |
| 7. Construction | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8. Other | 232,027 | 55 | 460 | 0 | 5,101 | 0 | 237,644 |
| 9. Indirect | 462,831 | 20,134 | 51,128 | 4,921 | 32,795 | 0 | 571,809 |
| Cumulative Expenses | 1,770,857 | 203,583 | 234,886 | 17,316 | 298,310 | 0 | 2,524,953 |

¹ Cumulative total of \$740,387 drawn from advance for contractor expenses; advance balance = \$301,918

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

| | EPA | NPS | NPS | NPS | BLM | BLM | |
|-----------------------|-------------------------|-------------------|-------------------|-------------------|------------------|---------------------|----------------|
| Object Class | Core Grant 2017-2019 | Task 3 3-State | Task 4 3-State | Task 5 3-State | Drill Rig AQM | 4 Corners AQM | Totals |
| 1. Personnel | 97,314 | 0 | 2,075 | 7,043 | 0 | 0 | 106,433 |
| 2. Fringe Benefits | 25,685 | 0 | 564 | 1,402 | 0 | 0 | 27,651 |
| 3. Travel | 14,523 | 0 | 0 | 0 | 0 | 0 | 14,523 |
| 4. Equipment | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5. Supplies | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6. Contractual | 130,562 | 8,574 | 0 | 0 | 10,032 | 0 | 149,168 |
| 7. Construction | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8. Other | 31,057 | 0 | 0 | 0 | 0 | 0 | 31,057 |
| 9. Indirect | 95,761 | 0 | -2,639 | 3,291 | 0 | 0 | 96,413 |
| Total Expenses | 394,903 | 8,574 | 0 | 11,736 | 10,032 | 0 | 425,244 |