|  | **2012** | **2013** | **2014** |
| --- | --- | --- | --- |
| **Deliverable** | **O** | **N** | **D** | **J** | **F** | **M** | **A** | **M** | **J** | **J** | **A** | **S** | **O** | **N** | **D** | **J** | **F** | **M** | **A** | **M** | **J** |
| Project management (2012-1) |
| Management and conference calls |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Travel and project meetings |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Emissions modeling data improvements (2012-2) |
| Point data improvements |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Area/nonroad data improvements |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cooperate with 3SDW staff to document/distribute data |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Emissions modeling protocol (2012-3) |
| Draft emissions modeling protocol |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Final emissions modeling protocol |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Emissions and air quality modeling support (2012-4) |
| Technical transfer to state and federal cooperators |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Data support for the 3SDW |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Modeling support for the 3SDW |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Emissions data improvement training (Fall 2012 and Spring 2013) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Project Management (2013-1) |
| Management and conference calls |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Travel and project meetings |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Emissions and air quality modeling support (2013-2) |
| Develop SMOKE library for 2008-2011 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Identify emissions data improvements |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Emissions data improvements and processing |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Review and recommend changes to 3SDW |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Emissions data improvement training (Fall 2013) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| WRF meteorological modeling for 2011 (2013-3) |
| WRF modeling protocol |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Run WRF for 2011 on the 36/12/4-km WestJump modeling domains |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| WRF MPE |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Emissions inventory for 2011 base year (2013-4) |
| MEGANv2.01 for 2011 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PMDETAIL fires for 2011 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2011 MOVES emission for CO, UT, WY |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CO, UT, WY 2011 inventory collection and processing |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **2012** | **2013** | **2014** |
| **Deliverable** | **O** | **N** | **D** | **J** | **F** | **M** | **A** | **M** | **J** | **J** | **A** | **S** | **O** | **N** | **D** | **J** | **F** | **M** | **A** | **M** | **J** |
| 2011 inventory for states outside of CO, UT, WY |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SMOKE processing for Base2011a |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| VOC EI reactivity analysis |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Data collection and SMOKE processing for Base2011b |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Base and future year oil and gas inventories (2013-5) |
| Estimate 2011 oil and gas emissions based on readily available data |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Estimate future year 2012-2030 oil and gas emissions based on readily available data |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Surveys and other inventory refinements |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Refined 2011 emissions estimates |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Refined future year 2012-2030 annual emissions estimates |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Projection period inventories (2013-6) |
| Non-oil and gas inventory 2008 to 2030 projections  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Non-oil and gas inventory 2011 to 2030 projections |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Future year fire inventories from JFSP projections |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SMOKE modeling for up to 5 future year emissions scenarios  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Air quality modeling and analysis (2013-7) |
| Technical analysis, validation, and documentation of 3SAQS ozone monitoring network |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CAMx modeling protocol |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CAMx simulation Base2011a on the 36/12-km WestJump and 4-km 3SAQS domains |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CAMx Base2011a MPE |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CAMx simulation Base2011b on the 36/12-km WestJump and 4-km 3SAQS domains |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CAMx Base2011b MPE |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CAMx cumulative oil and gas emissions simulation on the 12-km WestJump and 4-km 3SAQS domains |  |  |  |  |  |  |  |  |  |  | - | - | - | - | - | - | - | - | - | - | 🡪 |
| CAMx sources apportionment simulation for oil and gas sources on the 12-km WestJump and 4-km 3SAQS domains |  |  |  |  |  |  |  |  |  |  | - | - | - | - | - | - | - | - | - | - | 🡪 |
| CAMx simulations for up to 5 future year emissions scenarios on the 12-km WestJump and 4-km 3SAQS domains  |  |  |  |  |  |  |  |  |  |  |  |  |  | - | - | - | - | - | - | - | 🡪 |
| 3SDW development (2013-8) |
| XML metadata generator |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CTM post-processing tool |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CTM concentration importer |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| netCDF conversion tool for CMAQ/CAMx |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Online query tool for displaying netCDF data |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |