**WRAP Regional Haze Planning Workgroup**

**Emissions Inventory & Modeling Protocol Subcommittee**

**Recommendations for Base Year Modeling**

DRAFT – 10/25/2018

# Introduction

The Regional Haze Planning Work Group for Emission Inventories and Modeling Protocol (RHPWG EI & MP) Subcommittee solicited comments from state and local air agencies in the WRAP region on EPA's 2014 NEIv2. This work focused on pollutants and emissions sectors that had the potential to influence photochemical modeling for Regional Haze Planning, such as large PM sources and major point sources. The main criteria pollutants of concern that were reviewed for Regional Haze modeling include PM10, PM2.5, NOx, SO2, and NH3. This document briefly summarizes the 2014 NEI v2 and then lists feedback and suggested revisions received from WRAP members. The modeling contractor will use these suggestions when setting up the regional photochemical modeling system.

# 2014 NEI v2 State Summary

WRAP state anthropogenic emission summaries for criteria pollutants of concern are shown in the table and chart below (wildfire and biogenic emissions not included; tribal data not included).

*Table 1: Anthropogenic Emissions Summary from 2014 NEI v2*

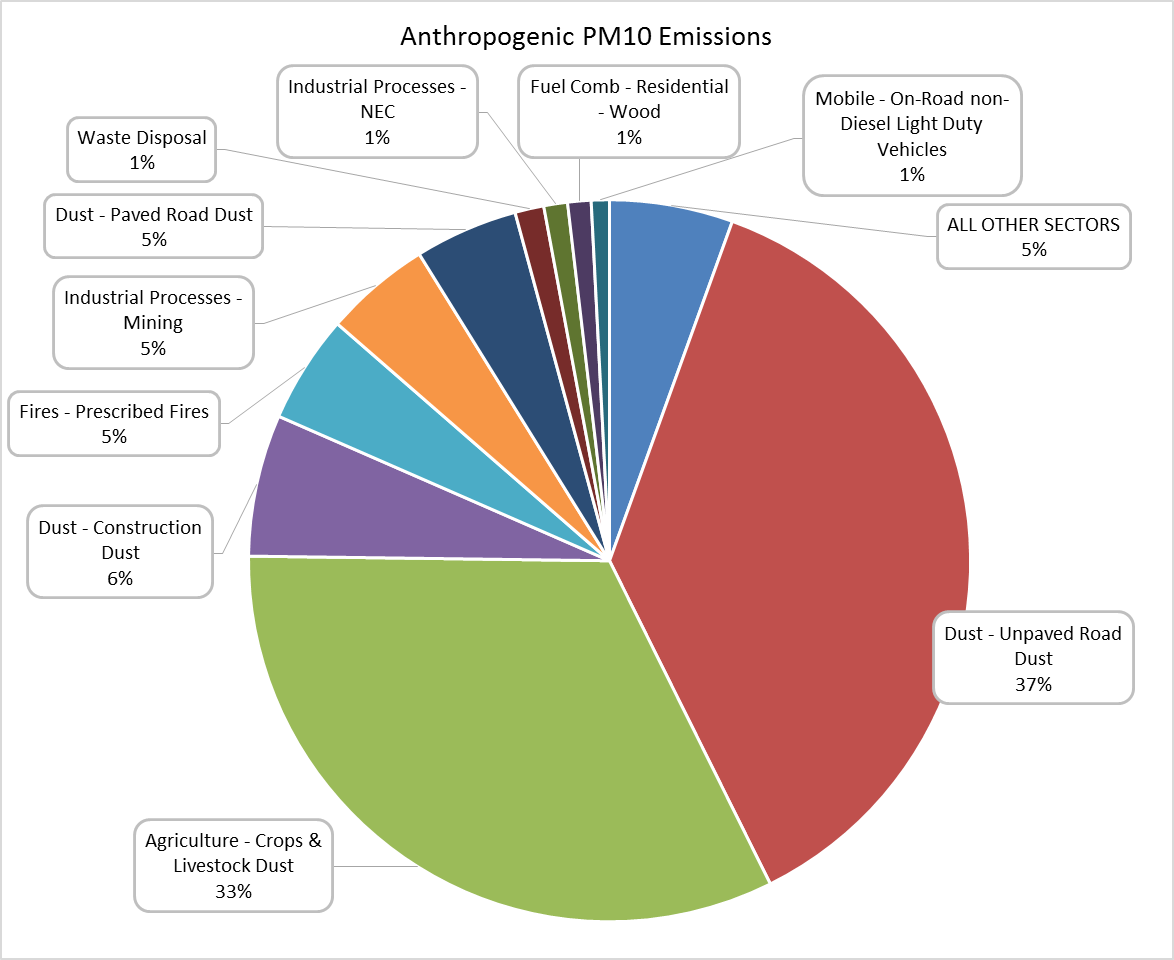
|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **State** | **PM10 (tons)** | **PM2.5 (tons)** | **NOx (tons)** | **SO2 (tons)** | **NH3 (tons)** |
| Alaska | 70,736 | 14,839 | 128,307 | 9,480 | 1,097 |
| Arizona | 285,924 | 58,413 | 216,575 | 43,634 | 33,605 |
| California | 450,273 | 148,408 | 549,966 | 25,930 | 438,605 |
| Colorado | 245,533 | 58,295 | 251,396 | 33,314 | 54,032 |
| Hawaii | 73,042 | 22,144 | 49,574 | 20,714 | 7,977 |
| Idaho | 369,524 | 74,538 | 84,236 | 7,088 | 76,487 |
| Montana | 369,253 | 84,180 | 112,522 | 24,612 | 27,817 |
| Nevada | 168,385 | 30,956 | 84,854 | 15,403 | 18,975 |
| New Mexico | 437,159 | 60,108 | 185,963 | 15,049 | 20,224 |
| North Dakota | 449,301 | 101,167 | 173,657 | 62,198 | 43,696 |
| Oregon | 457,083 | 107,155 | 130,828 | 15,635 | 28,417 |
| South Dakota | 347,478 | 81,526 | 68,209 | 15,948 | 62,859 |
| Utah | 183,018 | 37,053 | 173,121 | 26,713 | 21,669 |
| Washington | 263,775 | 90,915 | 237,184 | 30,410 | 42,435 |
| Wyoming | 193,832 | 36,993 | 160,199 | 56,651 | 10,980 |

*Figure 1: Anthropogenic Emissions Summary from 2014 NEI v2*

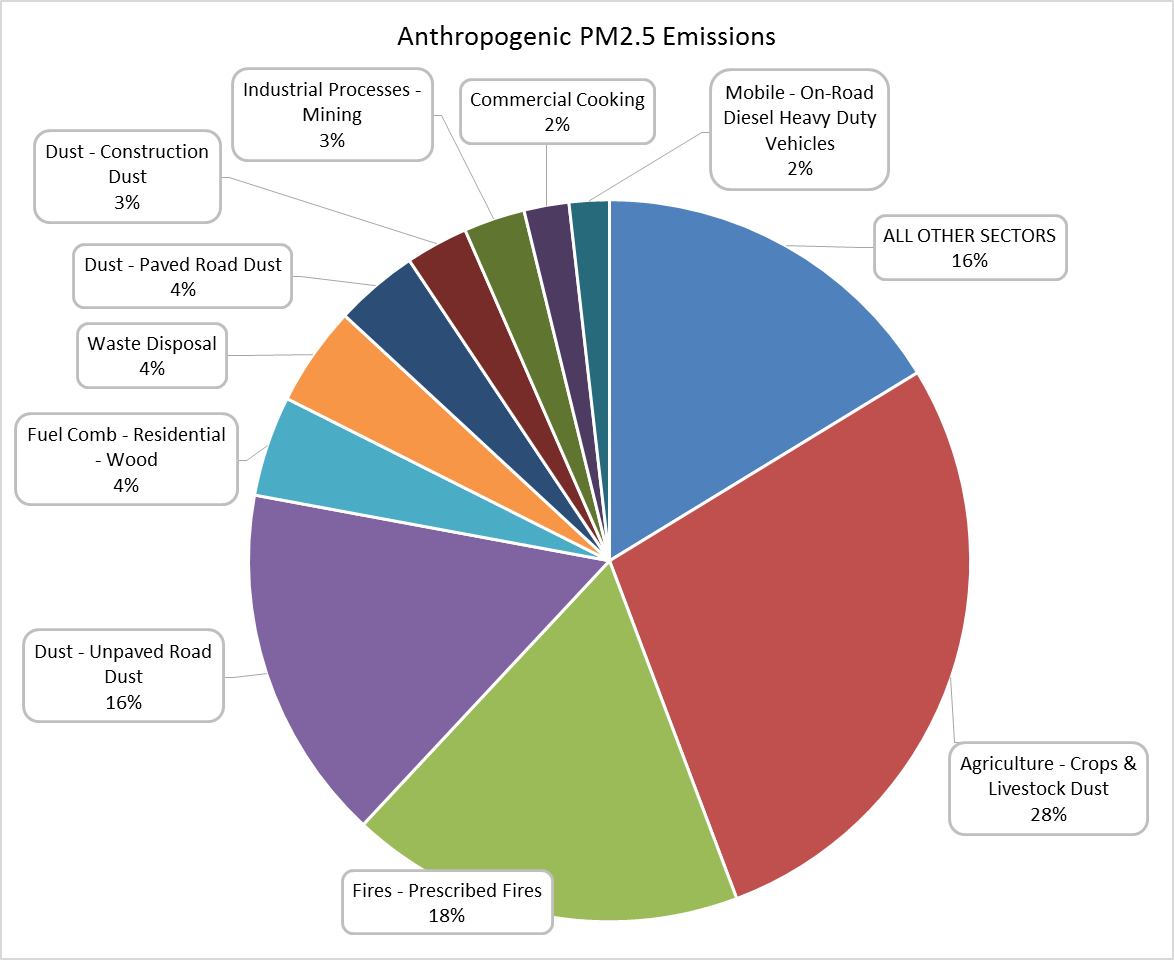
# 2014 NEI v2 Sector Summary

WRAP state and tribal anthropogenic emission sector summaries for criteria pollutants of concern are shown in the pie charts below (wildfire and biogenic emissions not included). The top sectors are charted individually while all other sectors are lumped together. It is important to note that NEI Sector Summary data from EPA is aggregated by SCC, not the NAICS category. Thus, the sector summaries will split facility emissions across multiple sectors. For example, the emissions totals for “Industrial Processes – Petroleum Refineries” will be less than the total facility emissions for all petroleum refineries. This is because all boiler emissions are added into the “Fuel Combustion – Industrial Boilers, xxxxx” category, even if they are at a refinery facility.

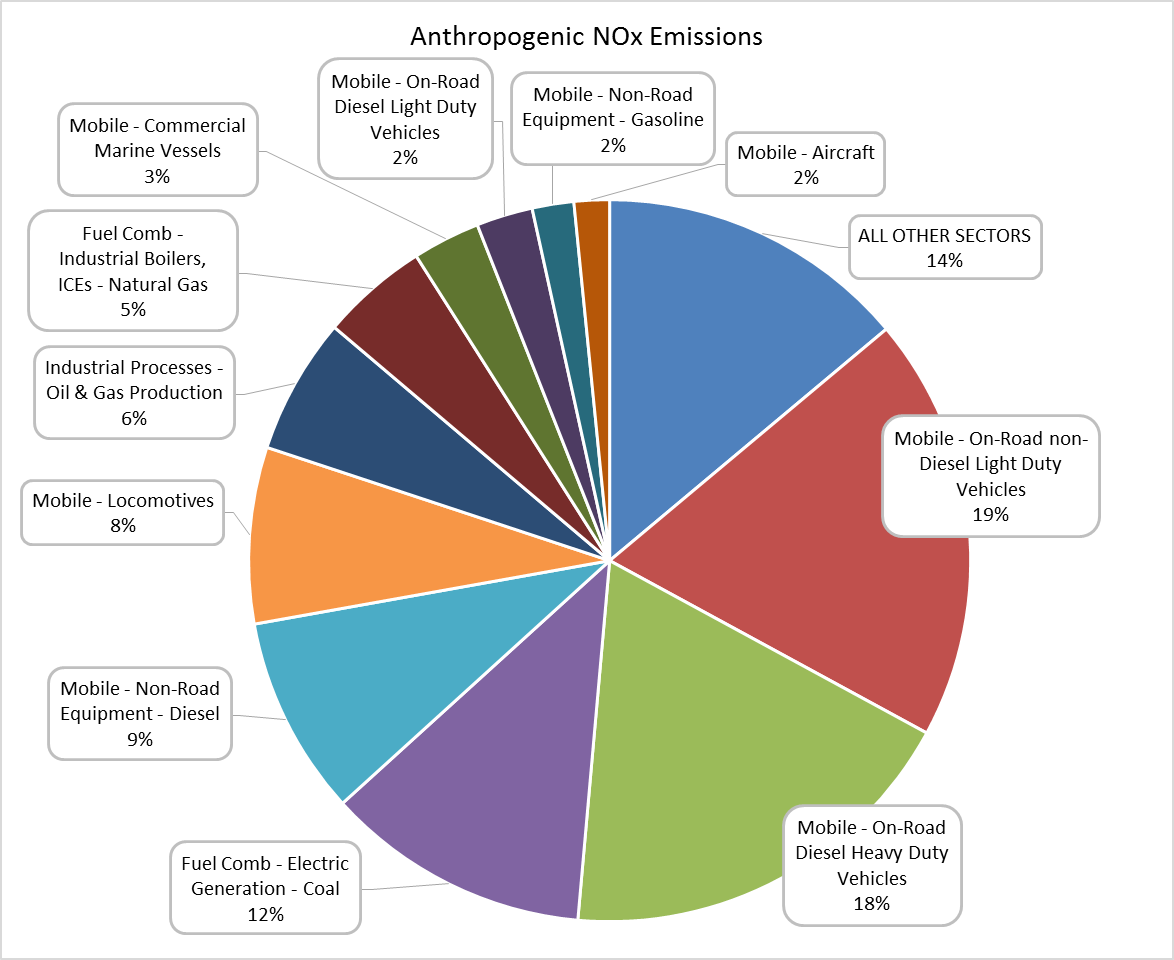
Figure 2 shows that Unpaved Road Dust and Agricultural Dust make up more than half the PM10 emissions in the WRAP region. Figure 3 shows that Prescribed Fire, Unpaved Road Dust, and Agricultural Dust make up more than half the PM2.5 emissions in the WRAP region. Figure 4 shows that On-Road Vehicles and Coal Power Plants make up half of the NOx emissions in the WRAP region. Figure 5 shows that Coal Power Plants make up more than half of the SO2 emissions in the WRAP region. Figure 6 shows that Agricultural Activities make up 85% of the NH3 emissions in the WRAP region. More detailed sector summaries (e.g. by county) can be seen [here](http://vibe.cira.colostate.edu/IWDWx/Emissions/2014NEIv2).



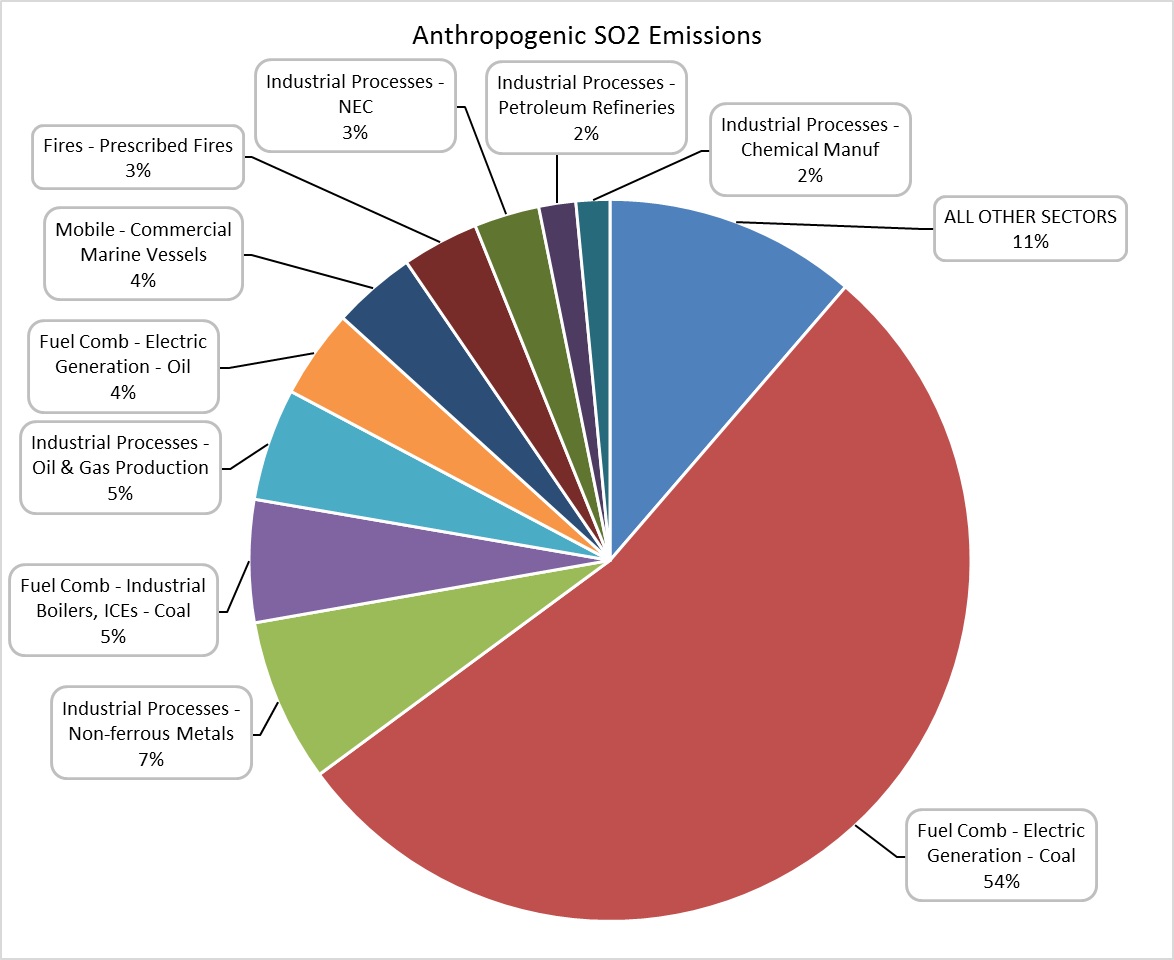
*Figure 2: Anthropogenic PM10 Emissions Sector Summary 2014 NEI v2*

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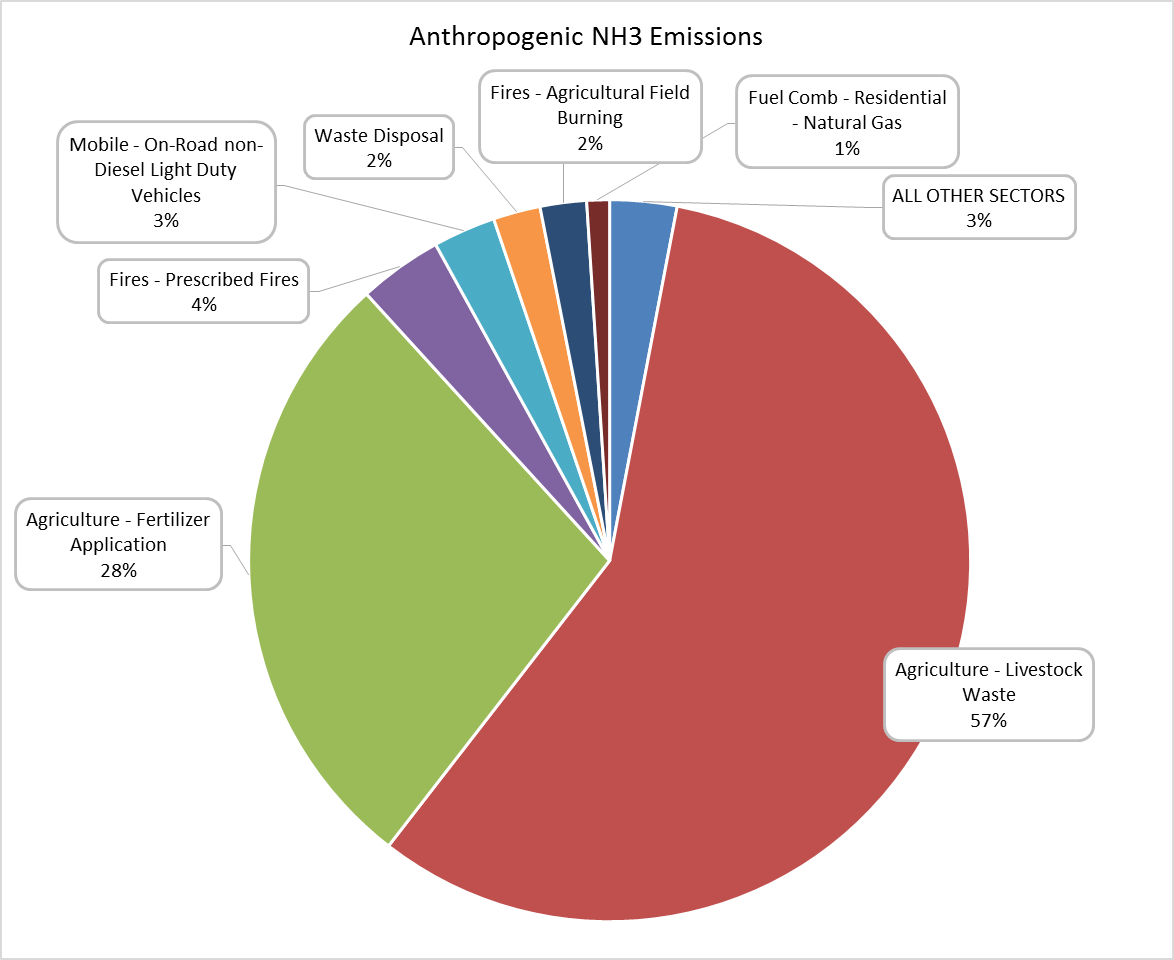
*Figure 3: Anthropogenic PM2.5 Emissions Sector Summary 2014 NEI v2*

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*Figure 4: Anthropogenic NOx Emissions Sector Summary 2014 NEI v2*

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*Figure 5: Anthropogenic SO2 Emissions Sector Summary 2014 NEI v2*

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*Figure 6: Anthropogenic NH3 Emissions Sector Summary 2014 NEI v2*

# Feedback and Revisions of the 2014 NEI v2

States and Local Agencies that are part of the WRAP spent several months reviewing the 2014 NEI v2 summary data and model-ready data. Most updates and comments came from members of the RH EI & MP Subcommittee, but many other updates were provided by WRAP members not officially on the subcommittee. The EI & MP Subcommittee started monthly meetings on June 28, 2018 and spent time reviewing all emissions sectors except for Oil & Gas and Fire, which were assigned to their respective subcommittees. [This wiki page](http://views.cira.colostate.edu/wiki/wiki/9191/western-us-regional-analysis-2014-neiv2-emissions-inventory-review-for-regi) was used as the primary site for posting original NEI v2 data and the revisions/comments submitted to the subcommittee. The review process focused on sector summaries, point source facility emissions, point source stack parameters, and MOVES on-road input data. A summary of the emissions updates is shown in Table 2. It is important to note that when stack parameters are not included in the model-ready files for point sources, a lookup table with default stack parameters by SCC code is used. However, if a record in the model-ready file has an “erptype” = 1, the emissions process should be modeled as a fugitive source and the stack parameter lookup values will not be used.

A detailed list of emissions updates and comments received is shown in Table 3. In general, all point and nonpoint source revisions that were submitted to the subcommittee were formatted as SMOKE-ready files and submitted to the University of North Carolina (BH Baek) to be included in the 1st version (“Shakeout”) of Regional Haze base-year emissions processing. Biogenic, On-road, and non-road revisions were not included for the “shakeout” round of modeling. Also, California point source updates were not included since they were not in an easily recognizable format and also because California intends to replace all NEI emissions with state-calculated values for version 2 of the Regional Haze base-year modeling. There were a total of 17 update files provided to UNC: Maricopa (point), Montana (point), Washington (construction dust and residential wood combustion), Pima county (Aircraft, Area, Locomotives, Point, and Yard Locomotives), California (Industrial Boilers, livestock waste, and O & G), Idaho (residential wood combustion), Oregon (unpaved road dust), Albuquerque (Point), North Dakota (point) and Utah (land clearing). Note that Pima county updates represented partial county values, which are not readily usable in standard SMOKE processing. Therefore, it is unsettled which Pima county updates will be used in the shakeout round of modeling.

The subcommittee also tabulated a list of the states/agencies that submit minor source emissions to EPA (see Table 4).

Table 2: Summary of Emissions Updates to 2014 NEIv2 submitted to RHPWG EI & MP Subcommittee from state and local air agencies.

| State/Agency | Sector | Comments | Files provided | Emissions totals in update (TpY) | Emissions totals in 2014v2 NEI (TpY) | Status/notes |
| --- | --- | --- | --- | --- | --- | --- |
| California ARB | Facility point sources | Four EGU and nine nonEGU facilities missing from NEI | Facilities correction data file; stack parameters; stack reference to facility- unit- emissions process | |  |  | | --- | --- | | CO | 11224 | | NH3 | 6.1 | | NOx | 11830 | | PM10-PRI | 3177 | | PM25-PRI | 1716 | | SO2 | 3657 | | VOC | 4257 | | |  |  | | --- | --- | | CO | 10378 | | NH3 | 315 | | NOx | 10724 | | PM10-PRI | 2870 | | PM25-PRI | 1706 | | SO2 | 2767 | | VOC | 5461 | | Data received. Update includes speciated VOCs. Stack parameters provided in supplemental spreadsheets. |
| Arizona, Maricopa County AQS | Facility Point Sources | Accurate point source data did not make it into the NEI for 21 sources due to a formatting error | Maricopa County point source updates | |  |  | | --- | --- | | CO | 1401.7 | | NH3 | 199.5 | | NOx | 1627.1 | | PM10-PRI | 475 | | PM25-PRI | 470.3 | | SO2 | 78.5 | | VOC | 755.6 | | |  |  | | --- | --- | | CO | 1431.3 | | NH3 | 198.2 | | NOx | 1693.7 | | PM10-PRI | 560.8 | | PM25-PRI | 190.9 | | SO2 | 79.9 | | VOC | 1671.3 | | Data Received |
| Arizona, Pima County DEQ | All for NOx, VOC | Pima EI applies to eastern half of county | Sector FF10 files, ERG report, spatial allocation files | |  |  | | --- | --- | | NOx | 19621 | | VOC | 104824 | | |  |  | | --- | --- | | NOx | 26021 | | VOC | 219554 | | Data received. |
| Idaho DEQ | RWC, Residential outdoor recreation | NEI lists only PM-FIL, PM-CON. Other pollutants not included in NEI; Could affect more states than ID | ID RWC correction file, includes PM-PRI (Filt + Cond) | |  |  | | --- | --- | | PM10-PRI | 1781 | | PM25-PRI | 1781 | | NOx | 198 | | SO2 | 36 | | VOC | 1941 | | CO | 12594 | | NH3 | 99 | | |  |  | | --- | --- | | PM10-PRI | 926 | | PM25-PRI | 926 | | NOx | 118 | | SO2 | 23 | | VOC | 691 | | CO | 6483 | | NH3 | 54 | | Data received. Update includes speciated VOCs, HAPS for selected SCCs that were not included in NEI |
| Washington ECY | Construction dust | EPA method underestimates values for eastern part of state | WA construction dust revisions | |  |  | | --- | --- | | PM10-PRI | 40627 | | PM25-PRI | 4062.7 | | |  |  | | --- | --- | | PM10-PRI | 20436 | | PM25-PRI | 2043.6 | | Data received |
| Washington ECY | RWC fireplace emissions | ECY believes estimates for four counties are grossly overestimated and wants to replace with values from EPA RWC tool v3.2 | WA fireplace emissions revisions for King, Pierce, Kitsap, Snohomish counties | |  |  | | --- | --- | | CO | 1356 | | NH3 | 16 | | NOx | 24 | | PM10-PRI | 215 | | PM25-PRI | 215 | | SO2 | 3.6 | | VOC | 172 | | |  |  | | --- | --- | | CO | 17130 | | NH3 | 207 | | NOx | 299 | | PM10-PRI | 2713 | | PM25-PRI | 2713 | | SO2 | 46.0 | | VOC | 2173 | | Data received. Update does not include speciated VOCs. NEI contains speciated VOCs, etc. (e.g. formaldehyde at 206 TpY). |
| Oregon DEQ | Unpaved Road Dust | EPA method overestimates unpaved road dust in Western Oregon | Unpaved road dust adjustments | |  |  | | --- | --- | | PM10-PRI | 26839 | | PM25-PRI | 2664 | | |  |  | | --- | --- | | PM10-PRI | 299270 | | PM25-PRI | 29839 | | Data received |
| Wyoming | Facility point sources | Update includes EIs for 50 Buttes and House Creek facilities | Mainline emissions file | |  |  | | --- | --- | | CO | 27 | | NOx | 49 | | SO2 | 0.3 | | PM2.5-PRI | 2.6 | | PM10-PRI | 2.6 | | VOC | 54 | | Data for these facilities were not submitted to EPA and are not in the NEI | Data received.  Data provided include some speciated VOCs |
| City of Albuquerque, New Mexico | Facility point sources | Incorrect NEI value |  | |  |  | | --- | --- | | SO2 | 5.37 | | |  |  | | --- | --- | | SO2 | 108.4 | | Data received |

**Table 3: Comments and Revisions Submitted** to RHPWG EI & MP Subcommittee from state and local air agencies.

| **State** | **Reviewing Agency** | **2014NEIv2 Inventory** | **Comments** | **Attachments** | **Notes on FF10 Revisions for BH Baek** |
| --- | --- | --- | --- | --- | --- |
| Alaska | DAQ | Airport, marine, dust, wildfires, O&G | See attachment | [Alaska comments](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/AK%20WRAP%20NEI%202014%20review%200725%202018.docx) | N/A - Many concerns but no emissions changes provided |
|  | DAQ | Minor sources | List of minor sources reported for 2014 NEI | [Alaska memo](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/Alaska%20minor%20source%20reporting%20memo%20Birnbaum%202018-10-03.pdf) | N/A |
| Arizona | AZDEQ | All sectors | No substitutions needed | [Arizona comments](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/AZDEQ%20comments.pdf) | N/A |
|  | AZDEQ | Point source stack parameters | List of descriptors for non-airport SCCs with missing stack parameters | [Comments on point source SCCs](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/AZDEQ%20comments%20point%20source%20SCCs.pdf), [AZSCCDescriptors](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/AZSCCDescriptors.xlsx) | N/A |
|  | AZDEQ | Point source stack parameters missing values | No updates | [Review of missing stack parameters](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/AZ%20comments%20stack%20parameters.pdf) | N/A |
|  | Maricopa County AQD | nonpoint; point source; onroad | nonpoint data are accurate; there are more accurate point source data that did not make it into the NEI due to a formmating error; onroad looks OK | [Maricopa County comments](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/Maricopa%20County%20comments.pdf), [Maricopa County point source updates](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/Maricopa%20County%202014_Point%20Emissions.zip) | Point Source updates in XML format – requested csv from Hanna. CSV Provided 12/19/2018. Reformatted as FF10 |
|  | Pima County DEQ |  | Attached data were not submitted to EPA for inclusion into the 2014 NEIv2 dataset. These are Pima DEQ’s best estimates for 2014. Inventories include annual NOx and VOCs, along with OSD, estimates. Note that inventories represent the eastern portion of Pima County. | [Pima County comments](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/Pima%20County%20comments.pdf), [Pima\_County.zip](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/Pima_County.zip) | FF10 files provided; Intend to ignore Biogenics, Nonroad, Onroad for shakeout round. |
|  | Pinal County | All sectors, including unpaved road dust | EI person is reviewing; will respond with comments | [Pinal County comments](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/Arizona%20Pinal%20County%20comments.pdf) | N/A |
|  | Albuquerque | All sectors | No need for any changes | [Albuquerque comments](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/Albuquerque%20comments.pdf) | N/A |
| California | CARB | Mobile Sources | Email thread regarding use of CA's EMFAC vs. EPA's MOVES model for mobile source emissions | [CARB Comments](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/Mail%20Attachment%20CARB.pdf) | N/A |
|  | CARB | Facility point sources | Correction data file for point source emissions from 13 facilities | [Facilities correction data file](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/CARB%20Point%20Sources%20Correction%20Data%20for%20Western%20Regional%20Haze%20Modeling%207-18-2018.xlsx), [Facilities correction memo](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/CARB%20Facilities%20correction%20memo.pdf) | Not included in Shakeout round |
|  | CARB | Facility point sources | Stack parameter updates for point source emissions | [CARB Stack Parameter Corrections](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/Stack%20Parameters%20of%20CARB%20Point%20Sources%20Correction%20Data%208-14-2018.xlsx), [Stack Reference to Facility-Unit-Emissions](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/Stack%20Reference%20to%20Facility-Unit-Emissionsprocess%208-14-2018.xlsx), [Stack parameters update memo](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/CARB%20Comments%20Cao%20Stack%20Parameter%20updates.pdf) | Not included in Shakeout round |
|  | CARB | Nonpoint, Nonroad | see attachment | [CARB Comments Huth](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/CARB%20comments%20Huth.pdf) | N/A |
|  | CARB | nonpoint updates in FF10 format | Zip file containing one file to remove cattle husbandry dust from solid waste categories; three files with "hard zeros" for various pollutants and counties in sectors relating to industrial boilers, oil and gas, and poultry husbandry. | [California FF10 updates](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/California%20FF10%20updates%20to%20NEI2014v2%20for%20regional%20haze%20modeling.zip); [Memo Huth](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/CARB%20Memo%20Huth%202018-10-09.pdf) | FF10 provided; Need to remove temporal profile from monthly columns; Data to replace NEI; dust from hooves ignored |
| Colorado | CDPHE | All sectors | Sectors appear consistent with [Colorado] data | [Colorado Comments](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/Colorado%20Comments.pdf) | N/A |
|  | CDPHE | Onroad Mobile | Issue with how EPA treated vehicle age distributions in 2014 NEI | [Colorado comments on MOVES vehicle age distribution](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/Colorado%20MOVES%20vehicle%20age%20distributions%20Wells%202018-10-3.pdf) | To be treated in v2 of WRAP modeling |
| Hawaii | HDoH | See comments and data attachments | See attached comments | [Hawaii comments](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/Hawaii%20comments.pdf); [Hawaii Comparison of Phase 1 spreadsheet to HI SLEIS](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/IWDWandAES.PDF); [HI Data Pt Src review](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/HI%20Data%20043018-Pt-Src-Air-PDTSS-rev6.xlsx) | N/A |
| Idaho | IDEQ | Residential wood combustion | Updates to 2014v2 RWC inventories for Idaho | [Idaho Comments](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/2014%20NEI%20v2%20Idaho.pdf); [2014 NEIv2 RWC Corrected](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/2014%20NEIv2%20RWC%20Corrected.xlsx) | All Data provided as xls to replace NEI; reformatted as FF10 |
| Montana | MTDEQ | All sectors | No changes to 2014 NEI; potential issues with O&G inventories in Big Horn Basin (review pending) | [Montana Comments](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/Montana%20comments.pdf) | N/A |
|  | MTDEQ | Stack parameters | Updates for Oldcastle facility | [Oldcastle update file](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/Montana%20Oldcastle%20updates.xlsx), [Montana memo](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/MTDEQ%20Memo%20Payne%202018-10-05.pdf) | Add missing data as provided (near FF10); reformatted as FF10 |
| Nevada | NDEP | All sectors, emphasis on major point sources | No changes at this time; Washoe County indicated their MOVES inputs were not included | [Nevada comments](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/Nevada%20comments.pdf) | N/A |
|  | Clark County | All sectors | Data are OK to use as is | [Clark County comments](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/Nevada%20Clark%20County%20comments.pdf) | N/A |
|  | Washoe County | all sectors | NEI data are correct for Washoe County | [Washoe County comments](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/Nevada%20Washoe%20County%20comments.pdf) | N/A |
|  | NDEP | default stack parameters | Clarification on fields in default stack parameter file | [NDEP Memo Harpring](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/NDEP%20Memo%20Harpring%202018-10-09.pdf) | N/A |
| New Mexico | NMENV | All sectors | EPA’s change in methodology from 2011 to 2014 reduced road dust emissions by 50%. In 2014, VMT was obtained from a MOVES run instead of an NMIM run, and separated into paved and unpaved values based on census-region level ratios. | [New Mexico Comments 1](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/New%20Mexico%20comments%201.pdf), [New Mexico Comments 2](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/New%20Mexico%20comments%202.pdf) | N/A |
|  | City of Albuquerque | Point source | WWTP with incorrect SO2 value |  | Data given directly to BH |
| North Dakota | DoH | Point source stack parameters | Stack parameter replacements for a couple of their coal power facilities, noted in red (columns S thru W) | [2014NEIv2\_stack\_revisions\_ND](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/2014NEIv2_stack_revisions_ND.xlsx) | Replaced Stack Parameters for all pollutants under each release point identified; formatted as FF10 |
|  | DoH | Point sources and other sectors | Inventories look reasonable | [North Dakota Comments](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/2014%20NEIv2%20NDDH.pdf) | N/A |
| Oregon | ODEQ | nonpoint nonroad onroad | EPA data is accurate for Oregon nonpoint, nonroad and onroad sources. See comments. | [Oregon Comments](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/Oregon%20nonpoint%20nonroad%20onroad%20comments.pdf) | N/A |
|  | ODEQ | Point sources | EPA data are accurate for Oregon point sources | [Oregon Comments Swab](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/OR%20Comments%20Swab%2006082018.pdf), [Oregon Comments Stocum](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/OR%20Comments%20Stocum%2014082018.pdf), [Point source review materials](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/RHPWG_Point_Review_Oregon.pptx) | N/A |
|  | ODEQ | Unpaved Road Dust | Review by the RHPWG EI & MP Subcommittee indicates abnormally high values for OR | [Email correspondence indicating WA may provide updates for OR unpaved road dust emissions](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/OR%20unpaved%20road%20dust%20potential%20update%20by%20WA.pdf) | N/A |
|  | LRAPA | Major point sources | Updates provided to EPA. Pending confirmation that correct data is in NEI | [Oregon LRAPA comments](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/Oregon%20LRAPA%20comments.pdf) | N/A |
|  | ODEQ | Unpaved roads | Adjustments made by WA-ECY | [Unpaved road adjustments](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/Unpaved_roads_Oregon_adjustment.xlsx), [map showing revisions](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/unpaved_road_dust_adjusted_oregon.png), [Memo](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/Oregon%20unpaved%20road%20dust%20revisions%20memo.pdf) | XLS data reformatted for FF10 |
| South Dakota | DENR | All sectors | No changes | [South Dakota Comments](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/South%20Dakota%20comments.pdf) | N/A |
| Utah | UDEQ | non-point SOx, non-road mobile diesel locomotive SO2 | Updates provided, other sectors look OK for RH modeling | [Utah Comments](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/UT%20Comments%20Baker%2009082018.pdf), [SOx Discrepancy - OpenBurning LandClearing](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/SOxDiscrepancyOpenBurningLandClearing_Utah.xlsx), [Mobile Sources Comparison](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/On-%20and%20Non-road%20Mobile%20Sources%20Comparison.xlsx) | Created FF10 setting Land Clearing SO2 to zero. |
| Washington | ECY | Construction Dust | EPA's emissions calculation methodology for construction dust is over-generalized for Washington state | [Washington Comments](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/WA_2014_ConstructionDust_EI_Revisions.docx), [WA\_2014\_ConstructionDust\_EI\_Revisions.xlsx](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/WA_2014_ConstructionDust_EI_Revisions.xlsx) | XLS data reformatted for FF10 |
|  | ECY | Fireplace emissions | Updated fireplace emissions for four counties in the Puget Sound area | [WA\_2014\_Fireplace\_EI\_Revisions.xlsx](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/WA_2014_Fireplace_EI_Revisions.xlsx) [WA\_2014\_Fireplace\_EI\_Revisions.docx](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/WA_2014_Fireplace_EI_Revisions.docx) | XLS data reformatted for FF10 |
| Wyoming | WDEQ | Unpaved road; point sources | Raised concerns for Unpaved Road Emission; recommendations for representativeness of point source emissions | [Wyoming Comments](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/WDEQ%20-%202014%20Initial%20Review%20Comments.docx) | N/A |
|  | WDEQ | Facilities emissions not in NEI | See attached | [50 Buttes and House Creek Emissions](http://views.cira.colostate.edu/wiki/Attachments/2014v2_Review/50%20Buttes%20and%20House%20Creek%20Mainline%20Emissions%20-%202014%20Wise.xlsx) | Data provided as xls does not include stack parameters or EIS IDs; obtained from NEI v2 and reformatted as FF10 |

Table 4: Status of minor-sources included in the 2014 NEI v2 point-source facility dataset

|  |  |
| --- | --- |
| **State** | **Minors Submitted to EPA?** |
| Alaska | Yes (see updates on wiki) |
| Arizona | Pima County says No – AZDEQ: No |
| California | Yes - All minors submitted for NEI years |
| Colorado | Yes - All sources down to 1 ton |
| Hawaii | No |
| Idaho | No |
| Montana | Yes – Sources down to 25 tons except portables |
| Nevada | Yes - All minors submitted for NEI years |
| New Mexico | No |
| North Dakota | No |
| Oregon |  |
| South Dakota | No |
| Utah |  |
| Washington | No |
| Wyoming | Yes - All minors submitted for NEI years |