Draft Notes

Emissions Inventory & Modeling Protocol Subcommittee January 31, 2019

1. Welcome, Roll Call, Note-taking duties, Agenda Review – Farren (5 mins.)

Participants: AK, CA, Pima County AZ), CO, ID, NV, NM, ND, UT, WC, WY, WRAP, CIRA, Air Sciences,

1. Review of 2014 NEI updates for contractor processing of emissions for Shakeout Modeling Platform – Farren (10 mins.)
	1. White paper review/updates/approval for docketing process (see: [EI & MP Subcommittee 2014 Base Year EI Review](https://na01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fviews.cira.colostate.edu%2Fwiki%2FAttachments%2F2014v2_Review%2FWRAP%2520Regional%2520Haze%2520SIP%2520Emissions%2520Inventory%2520Review%2520Documentation.docx&data=02%7C01%7Cchristine.suarez-murias%40arb.ca.gov%7Ccd85544d0c3e4dbd11ce08d6879b07aa%7C9de5aaee778840b1a438c0ccc98c87cc%7C0%7C1%7C636845497270648424&sdata=GfjYnCc0MgqEjbZFyxCNE9bU2L%2FzMVVjGktK9iUjRws%3D&reserved=0))

Prepping for Shakeout Modeling. BH @ UNC is processing modeling files and had to leave some out for formatting reasons: Pima County had only NOx and VOC data, unable to use California data which will be available for round 2. Using 2014 NEI v.2 inventories with adjustments recommended by states and sectors in table II. The change recommendations are in Table III. Updates made as of December 2018 are in the WIKI and have been added to the Summary document. The document explains what is in the first shakeout round of modeling. There will be a second document to explain what goes into the second round of modeling. Can color code updates.

Action Item: Need to get all final comments by February 8 on this version of the Emissions Inventory Summary Document so that it can be presented to the Regional Haze Planning Work Group for consensus, then it will go to the Wrap Technical Steering committee for docketing.

1. Do western states want to give [onroad](https://na01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fviews.cira.colostate.edu%2Fwiki%2Fwiki%2F9181&data=02%7C01%7Cchristine.suarez-murias%40arb.ca.gov%7Ccd85544d0c3e4dbd11ce08d6879b07aa%7C9de5aaee778840b1a438c0ccc98c87cc%7C0%7C1%7C636845497270648424&sdata=53fdKFwcG5ptYjsgmHgu2xhBlpHFhjcXW2FIoPUMJoY%3D&reserved=0) / [nonroad](https://na01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fviews.cira.colostate.edu%2Fwiki%2Fwiki%2F9179&data=02%7C01%7Cchristine.suarez-murias%40arb.ca.gov%7Ccd85544d0c3e4dbd11ce08d6879b07aa%7C9de5aaee778840b1a438c0ccc98c87cc%7C0%7C1%7C636845497270658429&sdata=1w4SH2tOP3WWuhDJmRSd5ZwmARbHrYT1PuOts4W3j0I%3D&reserved=0) mobile model 2016 activity inputs for the final (v1) of the 2016 national emissions modeling platform – Tom (5 mins.)

For the 2016 national platform for photochemical modeling, need one more recalculation for every county for 2016. If different defaults used, then need the links for on-road and off-road to Dale Wells for 2016.

1. Facility representativeness in the 2nd round of 2014 base year modeling – Farren (15 mins.)

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* 1. Timing (see: [Modeling Timeline](https://na01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.wrapair2.org%2Fpdf%2FModeling%2520Timeline.xlsx&data=02%7C01%7Cchristine.suarez-murias%40arb.ca.gov%7Ccd85544d0c3e4dbd11ce08d6879b07aa%7C9de5aaee778840b1a438c0ccc98c87cc%7C0%7C1%7C636845497270658429&sdata=%2BuZOYqpCd8J4vhL7bIs4tEeKsGOxbp2wgF%2FExSTpA%2B4%3D&reserved=0))
	2. Actual vs. representative emissions

For the facility representativeness (specific sources with varying operation over years) will want to develop an emissions output that is typical (maybe average) for the years 2013-2017. This representative emissions rate will be used for the 2028 projections from the “baseline.” The emissions profile may be different for the representative baseline than that used as actual 2014 emissions for the shakeout modeling. Many sources will not change, but those that do have inter-annual variations will need a representative baseline for forecast. Also need to include any shutdowns expected by 2028– they would have a zero forecast. Also if there is fuel switching, that conversion in emissions need to be appropriately forecast. If there is a new source coming on line, that information is also needed for the forecast.

Pima County has an example where a facility shifted over to natural gas. The 2014 emissions profile for the first shakeout round would be different than the forecast profile due to the fuel switch between 2013 and 2017. The projection is a different exercise. Another example would be when source emissions are very different between 2014 and 2017 inventory, if those are the only two data points a state has for that source.

There are two separate inventories, the base year and the representative base year for source that vary inter-annually. Roger Ames could (contractor) will collect this information. Each state would confirm its representative baseline for sources.

* 1. EI & MP Subcommittee memo or other documentation

In the Timeline Task 4 for the RTOWG, there is a task described as “2023 and 2028 On-the-books Emission Inventory Development (RTOWG, EI & MP SC, and contractor team) Perhaps the subcommittee should recommend a process with criteria for future emissions inventory forecasts and sign off on the data collected. At the county level it will be easier to see which tonnage changes for which pollutants are significant. Emissions limits by permit or rule, and rule penetration and effectiveness (thresholds and enforcing mechanisms may come into play. Look at SOx, NOx, PM.

Action Item: Farren will draft a checklist that a contractor could use to query states about (e.g. facility closings, emissions trends, which sectors vary, which don’t; which sources fuel switched or changed in some other way (e.g. new controls), which have emissions projections already etc.)

* 1. How to represent Pima County point sources in the second round of 2014 base year modeling – Janice Easley

Discussed above.

1. 2028 “Rules on the Books” emissions projection specification development process - Tom and Farren (10 mins.)

The schedule for forecasting for 2028 “rules on the books” indicates that projections will be developed this summer for “base case” modeling per the WRAP Work Plan. The representative baseline from which these forecasts are made will be developed March through June. There is a task for 2023 (for ozone, using 2016 base year) and a task for 2028 (for Regional Haze using the 2014 base year.) The time to develop these forecasts overlap.

1. Volunteers to work with Fire & Smoke WG on specifying representative baseline and future wildfire and prescribed fire emissions scenarios (see: [Planning Baseline and Future Fire EIs white paper](https://na01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.wrapair2.org%2Fpdf%2Fwrap_planning-year-ei_whitepaper_v2.pdf&data=02%7C01%7Cchristine.suarez-murias%40arb.ca.gov%7Ccd85544d0c3e4dbd11ce08d6879b07aa%7C9de5aaee778840b1a438c0ccc98c87cc%7C0%7C1%7C636845497270668443&sdata=9oKZ3mVyWkb0pALRDxFfSdQKkhfIAoPg5mgmsB4EOVQ%3D&reserved=0)) – Tom and Matt Mavko (5 mins.)

Fire and Smoke emissions are a source category for which a “representative baseline” is needed. They may be able to use the same average for the forecast but may look at whether fire emissions (prescribed and wildfire) will increase. Matt Mavko at Air Sciences is working on this with the Fire & Smoke Work Group. They have developed the attached methodology which also includes estimates based on fire risk areas. They would like to have some volunteers to work with them and will arrange an off-line call for this group. Kristen Martin, Rhonda Payne, and Farren Heron-Thorpe are interested in helping and are also on the Fire & Smoke Work Group.

1. Next call date and time, suggestions for topics – Farren and all (5 mins.)

The next call is February 28 at 11 AM Pacific. Arizona is slated to take notes. Send Farren topic ideas. Don’t forget to comment on the Emissions Summary Document by February 8.