# RHPWG Coordination / Glide Path Subcommittee

March 12, 2020

Notes by D Pei Wu (Oregon DEQ)

Agenda

1. Administrative
   1. Roll call (Shawn (CIRA), Brandon M (MT), Colleen Simpson, D P Wu (OR), Ed Murta, Emily V., Jaslyn, J.P. Huys (WA), Melanie Peters (NPS), Michael B (NM), Molly B (AK), Neil (NM), Pat Brewer, Phil A (OR), Rick B, Rob (WY), Steven M (NV), Kent (CIRA), Aislinn (ID), Elias (AZ))
   2. Today’s notes – Oregon (DPWu)
   3. [Last meeting’s notes](https://www.wrapair2.org/RHP_coordination.aspx) (Nez Perce - Thank you, Julie!)
2. Task Group Reporting
   1. TSS Developments – Task 7.2/7.3 - (Pat, CIRA, Tom)
      1. TSS Emissions Tools – (Shawn and Pat)

[Pat] Since the last call: emissions delivery and step 2 on the timeline (see presentation).

WRAP 2014v2, RepBase, and 2028 OTB emissions have been delivered by Ramboll to CIRA. CIRA has been processing it and developing it.

What is the Representative Base and why don’t we use a single year? It’s not a 5 y average, it’s not 2014. Depends on which sector. See presentation slide for bullets.3rd bullet is oil & gas (info omitted on slide).

In anthropogenic emissions, Ag fire and prescribed fire differ btw RepBase and WRAP 2014v2.

Shawn has been populating data on TSS.

Will have capability to add California to these plots.

[Shawn] Introduce tools that will be on the WRAP TSS website. Doing internal QA on data and products then will release on website after. Products will be available in the next couple of weeks – a suite of emissions review and charting tools. Organized in tabs under a map you can select CIAs from.

Emissions Products – preview of Summary Tables and Charts targeting for release on website. Not available yet.

NOx = sum of all nitrogen oxide compounds (incl. NO, NO2).

Need extra eyes to look at this data set. What we are getting from Ramboll are “raw” values and “sectors”. There’s a certain amount of computation that is happening to synthesize into final groupings. Please take a close look at your state’s data once the data are available, see if anything doesn’t make sense, so it helps QA the data and make sure we’ve made correct assumptions about how to present it.

* + 1. Weighted Emissions Potential (WEP) – (Shawn and Pat)

[Pat] Ralph Morris from Ramboll updated that there is new information for 2028 WEP.

First they are doing HYSPLIT back trajectories for all IMPROVE monitors plus some for eastern states. With the 2028 OTWOTB info. Using 2014-2018 MID (~120 y). 4 release heights per day + 4 times per day. Have that for all CIAs.

Residence time analysis = sum for all days and runs to weight residence time for each 36 km grid cell over western U.S. Link to RTO webpage with updated presentation. This will be getting on to the TSS in the next couple of weeks.

Amoeba plots tell you that wind came from those geographic areas. Weight the residence time plots by extinctions for each = weighted residence time. For instance NOx might come from one direction while SO2 from a different direction.

Weighted emissions potential = emissions within an area of influence. Then rank EGU and industrial source facility level by SO2 and NOx WEP for each CIA. [prioritize sources in your state, and neighboring states]

Discussion: what data are states using to evaluate anthro emission for FFA?

Go to 3) b) i).

* + 1. TSS FAQ and Glossary – Task 6.3 (Elias)
       1. FAQ – Sent to CIRA for inclusion on TSS
       2. Glossary – Looking to borrow missing terms from EPA Guidance/Rule

1. Other Topics
   1. IMPROVE data – ARS (Emily Vanden Hoek)
      * 1. ARS Review of IMPROVE Impairment dataset - Dec 2019

* IMPROVE Aerosol vs. IMPROVE Aerosol RHR II (haziest / clearest) and RHR III (MID)
* Review and compare data sets on TSSv2 (complete)
* Review and document changes btw Oct 2019 and Dec 2019 IMPROVE RHR II & III data sets – complete
* Data substitutions for 2018 (complete, pending review)
* MIDs – can dive in deeper to which monitors with changes to 5-year average.
  + *Q: Jean-Paul – where can we find the actual data so we can look at it (it will be available on the IMPROVE site and is linked from the TSS site) – for the 5 y averages too.*
* *Discussion: [Tom] Emily and Joe’s work is helpful bc it looks at how the dataset that we used before last December is different from what has been updated and substituted. Ties back to discussion with OAQPS – want to make sure that the data set CIRA is referenced in the memoranda that we are waiting for from OAQPS bc these are data that we use to evaluate models, do projections for future year visibility. Even though the numeric changes aren’t that large we need to get settled on that. Want to make sure OAQPS memo captures the differences. An important procedural note so we are all using the same data.*
* *[Memo is in progress, has been written for a while but there’s an issue with how a section is written. Trying to get out the final version of the data at the same time. Hence the delay.]*
  1. Determination of affected Class I areas in other States
     1. What methodologies are states using to determine if sources within their state are affecting Class I areas in other states?  (e.g. using Round 1 determinations, Q/D, weighted emissions potentials, PSAT)

EPA R8 has been having regular check-ins with the R8 states. Would PSAT be used?

* AZ used Q/d then diverged a little from Control Measures Analysis Protocol (WRAP recommended a multitiered approach to figuring out sources: ID all NOx, PM10, SO2 >25 tpy and Q/d >10, then 2028 WEP as it became available). It was acknowledged early on that PSAT wasn’t going to be available and majority of states have moved beyond the source selection process. AZ – reached out to sources based on 2014 Q/d and 2018 emissions that were available. As WEP and PSAT results became available they would be more useful for FFA and see if we need to revisit any sources that had been excluded if we were above the glidepath. Have moved beyond source selection based on WEP or PSAT results.
* CA – the nice things about the WEP and the PSAT is that .. it depends on which direction is blowing on MIDs – our sites are most affected by our own sources. Based on predominant wind patterns are there going to situations where MID bring in emissions from another state? We really don’t know yet. Maybe when we look at WEP we will have a better idea.
  + Question – a site in OK .. do get more info from this than from Q/d

For Step 2 – approaches states are using – and if they want to consider PSAT when it becomes available?

* Yes are interested in source apportionment. (as opposed to step 3). Step 2 – for what is other states’ contribution to anthropogenic emissions in your state?
  + 1. Are there benefits to trying to use a common approach across states?

This is part of state to state consultation and will talk about this with neighboring states.

* + 1. Some WRAP Tools
       1. [Reasonable Progress Source Identification and Analysis Protocol](https://gcc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.wrapair2.org%2Fpdf%2Ffinal%2520WRAP%2520Reasonable%2520Progress%2520Source%2520Identification%2520and%2520Analysis%2520Protocol-Feb27-2019.pdf&data=02%7C01%7CDobrahner.Jaslyn%40epa.gov%7C09eb2d1fffc64287a09a08d7c122146d%7C88b378b367484867acf976aacbeca6a7%7C0%7C0%7C637190224934046181&sdata=kY3RZOeNAzfz5VmLktwfSkho7omMLiYVVH22JbtGvXc%3D&reserved=0)
       2. [WRAP Region Wide Q/d Analysis](https://gcc01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fviews.cira.colostate.edu%2Ftssv2%2FEmissions%2FQDAnalysis.aspx&data=02%7C01%7CDobrahner.Jaslyn%40epa.gov%7C09eb2d1fffc64287a09a08d7c122146d%7C88b378b367484867acf976aacbeca6a7%7C0%7C0%7C637190224934046181&sdata=t0BVwfGK1KTyJVAXj3dCFreHxV%2FpYtC%2BF0SRugMWCh0%3D&reserved=0)
       3. TSS WEP?
  1. 2028 Control Scenario Modeling Inputs
     1. Due March 16, 2020 – Model Ready Format (FF10)
        1. Contact EI&MP Sub for more info/help
  2. Status of EPA work products and tools in use for Regional Haze analysis – (Tom)
     1. Have been separately following up on these through RTOWG.
  3. [WESTAR-WRAP Regional Haze Workplan Completion & Results meeting](http://www.wrapair2.org/calendar/viewitem.jsp?&cal_item_id=27183), May 19-20, Seattle – (Tom)
     1. **Seems likely that the meeting will be an in-person meeting due to public health concerns.** Will re/think the format for remote meeting. Will be getting back to people about the WESTAR/WRAP meeting in April and this meeting. Are sorting through options now (hotel contracts, etc.). 4 states and several tribes have travel bans right now.

1. Action Items (by deadlines):
   1. Elias will work with Shawn, Pat, Tom to get an email blast out to group when the tools are available so next call is a working meeting.
2. Next meeting: **April 9, 2020**, 2:00 -3:30 MST, 1:00-2:30 PST

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| Notetaking Schedule | |
| March 12, 2019 | Oregon |
| April 9, 2019 | Utah |
| May 14, 2020 | South Dakota |
| June 11, 2020 | Utah |
| July 9, 2020 | Washington |
| August 13, 2020 | Wyoming |
| September 10, 2020 | Alaska |
| October 8, 2020 | Albuquerque |
| November, 12, 2020 | Arizona |