# WRAP RHPWG Monitoring & Glide Slope Workgroup

Conference Call November 1, 2018

Agenda:

1. Roll Call
   1. *AZ – Ryan*
   2. *CA – Tina*
   3. *MT – Brandon, Kristen*
   4. *NV – Frank*
   5. *NM – Cindy*
   6. *OR – Phil*
   7. *UT – Jay*
   8. *FWS – Tim*
   9. *NPS – Pat*
   10. *EPA – Brett*
   11. *WESTAR/WRAP – Bob, Tom*
   12. *ARS - Emily*
2. Administrative
   1. Current Notes – *Nevada (Oregon will take notes on 11/15 call)*
   2. Subcommittee Summary Document Draft: <https://azdeq.sharefile.com/d-s322b81c9e624c72a>

*Kristen is leading WESTAR effort commenting on exceptional event guidance and has included a comment under Additional Methods regarding the use of the new regional haze tracking metric which excludes some EE. She will provide the comment in an email to the group with a link to the memo.*

* 1. Subcommittee meeting schedule

*Ryan will carry the call schedule forward into early 2019.*

1. Call for review
   1. Summary Doc: Coordination between Subcommittees and Workgroups: <https://azdeq.sharefile.com/d-s74d70aaba9844f0b>
   2. E3 Excel Workbook User Guide: <https://azdeq.sharefile.com/d-sa6e465dbd7f493e8>
   3. Updated Excel E3 workbooks: <https://azdeq.sharefile.com/d-sc5e4f7114d44fceb>

*Please review the coordination document and provide feedback. Ryan created a user’s guidance for the excel workbook, please provide feedback. Ryan updated the excel workbook with 2017 monitor data for additional review. The 2017 data hasn’t be fully QA/QC’d but should be good.*

1. Data Substitution updates – ARS

*Emily give a summary presentation on ARS’s data support role, beginning with the IMPROVE Steering Committee meeting and noting release of 2017 IMPROVE data, talk about a possible 3rd IMPROVE equation to address sulfate/nitrate size splits, and finalization of the RH tracking metric by EPA in Fall 2018 and natural conditions estimates in Spring 2019 with link to presentations.*

*ARS noted 40 incomplete site-years and calculated donor-recipient statistics for 2013-2017, mostly due to all species missing and listed sites needing substitution with donor sites. ARS provided examples of straightforward substitutions, combined data sets for re-located sites, and problem sites. For problem sites (>50% missing data), data substitution may not be best option and proposed alternatives such as different donors for different periods. Next steps include memo discussing methods and donor-recipient statistics for review, outreach to states with problem sites, providing data substitutions based on the SC’s recommendations, and posting monitor data on TSS with ability to view substituted versus native data.*

*ARS will use the RHPWG distribution list to distribute and requests feedback by 11/21/18.*

1. Natural Conditions Evaluation - Brandon

*Brandon provided and reviewed “NCII demo calculation and mass distributions” which builds on last month’s presentation. Slides 12-16 show the natural/routine split calculations which scales the NCII to equal the annual average of natural routine, resulting in a stable natural routine component on annual basis (see slide 17). Skipped through series of slides showing average of daily natural (sum of episodic and routine) light extinction for 20% MID which determine new estimates of natural conditions with Trijonis estimate, mass distribution, and 2064 end points for each species and each IMPROVE site.*

*Picked up on slide 33 “Variations on the Trijonis estimates. The 2003 Trijonis values, which are largely grouped into east and west, are available on the IMPROVE website. Brandon conducted sensitivity testing on the Trijonis numbers by doubling it for the period 2000-2016 to see effects on 2064 end point of the glideslope. He also developed site/species specific q20 values (20th percentile of each species Trijonis value) in an attempt to identify the low fifth or “natural” portion of the distribution (this didn’t prove out). These values were used to recalculate the NCII for each site and species. The following plots compare these values (x2 and q20 NC) with NCII for all IMPROVE sites but don’t show a regular pattern, but NCII maybe low for sulfate and EC and high for CM and SOIL. Skipped glideslope plots (41-66) to slide 67 which tabulates the differences between the 2064 EPA end point and q20 estimates in deciviews and extinction by species for 26 sites. For sulfate q20 is consistently > NCII, for SOIL and CM q20 is consistently < NCII, mixed bag for nitrate, organic matter, elemental carbon.*

*Brandon concluded with a conclusion, natural-routine is designed so the yearly average is equal to the NCII values plus sea salt and Rayleigh extinction, and a series of questions to assess the q20 value; is it representative of natural conditions, should the 2000-2004 baseline be used, should seasonal NCII values be developed, are there alternative methods to calculated site specific natural-routine, are the clearest days species averages representative of natural, should a regional approach be used, are there other alternatives to estimating natural-routine, how do we assess if the results are sufficient?*

*It was noted that EPA is assessing some of these approaches in their assessment of natural conditions which will be released spring 2019. Pat will work with Brandon to move his analysis forward.*

1. Action Items

*Not discussed.*

**Notetaking Schedule**

|  |  |  |
| --- | --- | --- |
| **State** | **Notetaking Date** | **Representative** |
| Wyoming | 9/6/2018 | Amber |
| California | 9/20/2018 | Tina |
| Montana | 10/4/2018 | Brandon, Kristen, Rebecca |
| New Mexico | 10/18/2018 | Cindy |
| Nevada | 11/1/2018 | Frank |
| Oregon | 11/15/2018 | Phil |
| Arizona | 11/29/2018 | Ryan |

**Remaining Task List (Under Construction!)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Task** | **Completion Date** | **Documentation** | **Responsible Parties** |
| ID Sites w/ missing data | Oct-18 | https://azdeq.sharefile.com/d-s8feb6daa2f248539 | ARS |
| Document IMPROVE algorithms for patching substitution | Oct-18 |  | ARS |
| Document IMPROVE sites which have moved | Oct-18 | https://azdeq.sharefile.com/d-s8feb6daa2f248539 | ARS |
| MID summary document update & planning workgroup discussion on data completion timeline | Oct-18 | https://azdeq.sharefile.com/d-s03b7c1d871e42278 | Control Measures Subcommittee / EI & Modeling Subcommittee / MDGSS / Database Subcommittee |
| Trends Analysis for all sites | TBD |  | MDGSS & ARS (?) |
| Data Substitution | Dec-18 |  | ARS |
| Natural Conditions Recommendation | TBD |  | MDGSS |
| International Emission URP Adjustment | 2019 |  | EI & Modeling Subcommittee / MDGSS |
| Prescribed Fire URP Adjustment | 2019 |  | FSWG / EI & Modeling Subcommittee / MDGSS |
| URP Adjustment Summary Doc | 2019 |  | MDGSS |
| Calculate RH metric for all sites | TBD |  | ARS |
| Subcommittee Draft Summary Document | Nov-18 |  | MDGSS |