Meeting Notes of standing TSC / WG Co-Chairs call

October 30, 2019

**Attendees:**

Tom Moore Ryan Templeton Gordon Pierce Phil Allen

John Vimont Julie Oliver Rupesh Patel Tim Allen

Gail Tonnesen Sara M. Strachan PhD Darla Potter Melissa Hovey

Jay Baker Amber Potts Kirk Baker Mike Morris

Kevin Braggs Ed Merta

Jason Walker NWBSN (Note taker)

**Notes**:

Workplan progress review: (see below)

**TDWG-Ryan and Tom**

Ryan-TDWG did not have an October meeting. EN3 finalized contact list with active tribes. Working on EI evaluation and oil and gas inventory for tribal nations with O&G. Working on participating letter to WRAP tribes in the next few months.

Tom – the date of the webinar for Tribes and WRAP is scheduled for early December. A couple of calls beforehand that ITEP will be hosting and its on the calendar. Good work by EN3 and the report is held up from Oil and Gas until more time can be committed to look at the report.

EN3 will distribute O&G report with the 8-10 tribes that are involved with this project. Tom will follow up on this item.

Action item to get with O&G workgroup.

Upcoming webinar will be posted on WRAP website. December 4th at 10 am MST. First call is this afternoon for the draft agenda.

**Fire and Smoke WG-Sarah**

Sarah submitted F&S workplan progress report to Ramboll

Finalize and approve the fire plan and to respond to Ramboll by Dec 4th. They will add survey data to WRAP map.

Workplan the bffs and Ralph Morris from Ramboll attended the call. Mark Fitch will be coordinating with burners and asking what they plan and if they will increase fires based on this matrix.

* Workplan Progress over the Last Month
	+ Submitted Representative Baseline Fire EI to Ramboll
	+ Reviewed Future Fire Scenarios plan for sensitivity runs
		- 2 runs: wildfire FFS and Rx FFS
* Workplan Tasks for the Next Two Months
	+ Finalize and approve FFS approach
	+ Execute FFS approach and deliver scenarios to Ramboll by 12/4/19
	+ Collect and collate data for SMP survey
	+ Add SMP survey data to WRAP map
* Workplan Coordination Occurring over the Last Month
	+ Held an RBFFS call
	+ Ralph Morris of Ramboll attended call
* Workplan Coordination Needed over the Next Two Months
	+ Mark Fitch will be coordinating with federal Rx burners to fill in a matrix of % increases in Rx burning by agency and region – Matt will scale the Rx FFS based on this matrix

Ryan will get the updated .ppt to the group and posted.

**Oil and Gas WG-Darla**

* Workplan Progress Over the Last Month
	+ OGWG and Project Management Team (PMT) review and feedback
	+ Forecast (OTB & OTW) Inventory “Continuation of Historical Trends” – Complete
		- Final Report and Inventory Spreadsheet including control analysis are posted
		- SMOKE-inputs developed for WRAP Modeling and 2016 Emissions Platform Collaborative integrate for consistency
	+ Tasks 2, 3, 4 – Underway
* Workplan Tasks for the Next Two Months
	+ Task 2: Forecast 2028 Inventory (OTB & OTW) – November
		- “Reduced Legacy Well Activity” and “Increased Horizontal Well Activity” Scenarios-think of low and high scenarios and they will not be modeled. Questions as to whether they were in the contract or not.
		- No additional controls analysis
	+ Task 3: Forecast 2028 Inventory (Additional Reasonable controls) – End of 2019
		- Methodology by which emission control estimates may be made by regulatory agencies
	+ Task 4: Agency Program Review Task – End of 2019
		- Emphasis on describing state programs largely rely on agency input
* Workplan Coordination Occurring Over the Last Month
	+ October 1 – OGWG Webinar Midterm Update-it was well attended
	+ October 8 – OGWG Bi-Monthly Call
	+ October 15 & 30 – Project Management Team Calls-the 30th call was cancelled.
		- Coordinate and PMT feedback with Ramboll-going to circulate any additional information (via email) that Ramboll needs
* Workplan Coordination Needed Over the Next Two Months
	+ Nov. 12 – Project Management Team Call
	+ Dec. 10 – OGWG Bi-Monthly Call-several items on tasks; 2,3,4 under development by Ramboll with no specific timeframes.
	+ OGWG and PMT review and feedback on draft work products
		- Mid-November: Forecast Scenarios Draft Final Report (3 scenarios included) & Spreadsheets-reduced legacy well activity future scenario and increased horizontal well activity scenario will be incorporated into draft report.
		- November: Additional Reasonable Controls Report/Memo for review by work group
		- November: Agency Input to describe state programs
	+ Coordination with RHPWG Control Measures Subcommittee
* Coordination (External to WRAP) Occurring / Needed
	+ EPA’s 2016 Modeling Platform Collaborative – availability of OGWG baseline & future inventory-ongoing baseline and future inventory so their leveraging those items as well.
	+ 2017 NEI – account for inventory improvements

Final report is posted

Hope to integrate for consistency

Coordinating with tribal O&G Emission EI to get EN3 work product.

Questions:

Tom- A positive-2016 platform collaborative workgroup is done meeting. Folks won’t have to attend two workgroup meetings.

Ryan sounds like O&G workgroup has been busy. When your looking at potential controls are you also looking at compressor stations for the transfer of oil and gas or is it really more around well heads.

 Darla-The focus in regard to that is going to be NOx specifically. Ramboll is casting that net broadly. Engines at an upstream site mid-stream sector. But anticipate that NOx is the focus because of the RH perspective.

Ryan-was hopeful that compressor stations were apart of this focus.

**Regional Technical Operations WG-Mike & Gail**

* Workplan Progress over the Last Month
	+ 2014v2 base case simulation underway
	+ Presentation on “Modeling: International vs. US Contributions” at RHPWG ‘Octoberfest’ (10/3)
	+ Dynamic model evaluation scoping study underway sometime in 2020. Is there a change from 2002 to 2014 is there a similar response to what they see in the record. This is a truth serum for the model.
	+ Representative baseline EGU profiles
	+ Discussion of WRAP TSS2 analyses and graphics (10/17)
* Workplan Tasks for the Next Two Months
	+ Finish 2014v2 CAMx base case run
	+ Abbreviated fire plume rise sensitivity run
	+ GEOS-Chem/CAMx International Emissions (ZROW and Natural runs)
	+ Broad-Based Anthro vs. Natural PM Source Apportionment simulation
	+ Representative Baseline Emissions and PGM Modeling also going to do for O&G as well as mobile emissions
	+ **2028 Mobile Source and O&G Emissions Projections-EPA just released their 2016 modeling**
	+ **2028 OTB/OTW Modeling and Visibility Projections**
	+ Analysis of OAQPS 2016 beta’ Regional Haze Modeling Platform & 2028 Visibility Projections-comparing EPA and WRAP results will be interesting.
* Workplan Coordination Occurring over the Last Month
	+ Coordination with Ramboll on modeling progress (10/3, 10/10, 10/17)
	+ Monthly RTOWG call (10/15) – discussion on modeling products and updates on schedule
* EPA webinar on 2028 modeling (10/15)
* HAQAST ozone (10/2) and haze (10/17) monthly calls
* Calling in for OGWG (10/1), RHPWG (10/17)
* Bi-weekly RTOWG co-chair coordination calls

If you haven’t seen the graphic this will be a similar graph that will be the result of the product that will be competed with the future year predictions.

* Workplan Coordination Needed over the Next Two Months
	+ Extended RTOWG meeting in November (11/19) – discuss 2014v2 base case results possibly meeting in person
	+ Emission inventory updates for 2028: mobile, EGU’s
	+ Coordination calls with Ramboll for completion of Phase III modeling deliverables and preparing for Phase IV dynamic model evaluation that will be addressed in the next round of modeling report.
	+ Preparation of representative baseline emissions
	+ HAQAST ozone and haze calls

Questions

John- Rerun of 2002 scheduled for 2020?

* If that what I said, then I didn’t mean it. Call is going to be on 11/19.
* RTO is going to push that off until next year

John your following along with dynamic and see if the models is responding. Its critical to have that package.

Mike-I agree but we need to prioritize. Its still a high priority the 2028 results are the main driver and the dynamic model evaluation has some subtle points. The idea is isolate the contribution sources and how they impact the haze and to be used to fill in the gaps with the 2028 projections

John-the fundamental question is run the 2002 and then the 2018 and we see the range. If the model isn’t simulating the model. And if we go forward and its not responsive, is it taking us down a path that says the model doesn’t work. Its one of the outcomes that could happen.

Gail-John has a good point and we see the challenges in methodologies. Its difficult to interpret the results like the 2028 projections and get some uncertainties. It becomes a higher priority to EPA after the results. I think john is saying sooner than later. There are challenges in the methodology. Dynamic modeling is going to give us a better understanding of the model.

Ryan-Is this something that can be look at in the future?

Mike-Ramboll’s plate is full. And the run of 2028 will not impede with the results. Hope to have sensitivity runs by 2020 and if there is ambiguity (that was mentioned) then that’s where the rubber meets the road. Note to RTO on next call about dynamic model and the timing.

**Regional Haze Planning WG-Amber**

* Workgroup Workplan Progress and Coordination over the Last Month
	+ October 3rd Milestone Webinar there were 4 topics. Rep fire, EPA gave discussion on RH guidance, Mike did the International vs domestic and the communication document layout.
	+ Review of EPA’s Regional Haze Guidance
* Workgroup Workplan tasks and Coordination for the Next Two Months
	+ Development of Regional Haze in the West Storyboard
	+ Coordinate ongoing discussions of controls and modeling – both require states to consult with sources
	+ WESTAR/WRAP Fall Business Meeting
* Control Measure Subcommittee Workplan Progress over the Last Month
	+ Call was held on September 23rd
	+ States in various stages of 4-factor analysis work
* Control Measure Subcommittee Workplan Tasks for the Next Two Months
	+ Next call October 31st –
		- Plan to discuss BART/RP controls and costs from Round 1 WRAP RH SIPs
		- Continue discussion on determining remaining useful life for EGUs considering retirement
* Emission Inventory & Modeling Protocol Subcommittee Workplan Progress over the Last Month
	+ Provided contractor with Representative Baseline emissions from states
	+ Received projection methodology for mobile sources (EPA Modeling Platform)
* Emission Inventory & Modeling Protocol Subcommittee Workplan Tasks for the Next Two Months
	+ Obtain future facility emissions from states/locals and deliver to contractor.
	+ 2028 OTW/OTB and Controls scenarios
	+ Contractor to start Rep. Baseline and OTW/OTB simulations
* Emission Inventory & Modeling Protocol Subcommittee Workplan Coordination Occurring over the Last Month
	+ Participate on monthly O&G Workgroup calls
* Emission Inventory & Modeling Protocol Subcommittee Workplan Coordination Needed over the Next Two Months
	+ Continue to coordinate with O&G work group and Emission Inventory Subcommittee on emission forecasts.
* Coordination & Glide Path Subcommittee Workplan Progress over the Last Month
	+ Elevated Coordination Framework to RHPWG -> TSS
	+ Review of TSS FAQ Document & TSS Glossary taking a look at the latest guidance documents
	+ TSSv2 Deliverables and New Products Presentation
	+ Overview of outstanding tasks
* Coordination & Glide Path Subcommittee Workplan Tasks for the Next Two Month
	+ Continue overview of TSSv2 development
	+ Elevate FAQ and Glossary to RHPWG
	+ Revisit TSS Priorities document
	+ Mockup presentation of storyboard
* Coordination & Glide Path Subcommittee Workplan Coordination Occurring over the Last Month
	+ The subcommittee coordinated with the following entities:
		- TSS – Elevated Coordination Framework for Consensus
* Coordination & Glide Path Subcommittee Workplan Coordination Needed over the Next Two Months
	+ RTOWG – Coordination on Natural Conditions Project findings and opportunities to model outcomes for future planning periods.
	+ RTOWG – TSS Priorities for Modeling/EI
* Workplan Coordination Occurring over the Last Month
	+ Coordinated with contractor to review 2016 Modeling Platform release
* Workplan Coordination Needed over the Next Two Months
	+ Representative baseline and future modeling scenarios require coordination as needed with O&G WG, contractor, Fire & Smoke WG and RTO.
	+ Coordinate with C&GP subcommittee to provide guidance to states on what is needed from them for the different modeling scenarios

Ground proofing all the docs and make sure their up to date.

Sept 23 call and checking in with states and making sure their 4 factors are up to date.

Plugged in oil and gas calls.

Questions -no

**Changes that were made to the Oct29\_2019 advanced document-Tom**

**Communication framework docket-today is the last day to make changes.**

Ryan will coordinate (Elias and Emma) to make sure all changes have been addresses before its closed.

**Advancement of Western air planning in the WRAP**

There was a question to address the funding portion of this document.

We have a board sub committee and they meet every one or two months. Over 70 active members. Ryan and Julie were assigned the task of draft version 1.1 to review TSC and which boards are still going to be active. What will the committees look like after the later part of next yr. when most of the work is going to be done. There are some edits for the board to review and put in a flow chart. Tom added a section and would like the board to review and comment. They put in wording that lines out tasks when it comes to funding. Tom put down a few paragraphs to get feedback and direction. Also going to talk about the funding section. 2011-2016 is the proposed model that is being suggested for projects down the road. Tom wants feedback on this draft. Ryan, Julie and Tom are co authoring this document and questions can be addressed to them.

Ryan he would appreciate any feedback on if their missing anything and any feedback would be useful. How do we move forward with this document? Do we play it by ear until the next call? We will let folks review the document to bring up for discussion on future calls.

Tom- we can ask for feedback and meet with the funding board. Its not a critical path item we need to take a systematic approach to the document.

Julie Oliver- when would you want comments.

Tom-If you comment by thanksgiving, he can integrate by the Dec TSC call.

**Western states storyboard-Ed Merta and Mike**

Ed walking everyone through the storyboard. This webpage is not live but will be live November 2019

If you have any questions get ahold of Ed, Mike or tom.

Ed wanted to thank the folks and Ramboll.

Ryan-thank you for walking us through that I think this is a good storyboard and puts a good message out to EPA and investors.

Ed this isn’t going live until November 20th. If any tsc members have comments what the best way to get to you. Email or call ed, mike and tom after November 20th people can run the page live.

Tom- this was about 8-10 people who brainstormed on this board and think of as a lump of clay. Its not done and still welcome comments. Once its live we can still make changes.

TSC administrative if you want to get into the last three topics then click the links on the wrap website to get more information on notes from the calls.

Next call is December during the first week. TBD they’ll get that out asap.

Action items;

* Look though the advancement of western planning document and provide feedback a week before next call

# Next Meetings

November 4-6, 2019 in Jackson hole, WY

Call completed at 2:00 PM MST