1. Welcome and Roll Call for FSWG and RBFFS members – Sara (Note taker – Paul)

Attendees: (Sara - I didn’t capture this until later in the call maybe you have a longer list)

FSWG Attendees

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| --- | --- |
| Sara Strachan | x |
| Paul Corrigan | x |
| Bob Kotchenruther | x |
| Kirk Baker | x |
| Andrea Boyer | x |
| Matt Mavko | x |
| Tom Moore | x |
| Tina Suarez-Murias | x |
| Jay Baker | x |

RBFFS Attendees

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| --- | --- |
| Tom Moore | **x** |
| Matt Mavko | **x** |
| Ryan Templeton | **x** |
| Rhonda Payne | **x** |
| Kristen Martin | **x** |
| Molly Birnbaum | **x** |
| Tina Suarez-Murias | **x** |
| Bob Kotchenruther | **x** |
| Paul Corrigan | **x** |
| Sara Strachan | **x** |
| Rene Nsanzineza | **x** |

1. Introduce Bob and Paul as new co-chairs to FSWG - Sara
2. Explain existence of RBFFS to FSWG – Tom

Tom- The RBFFS group has been tasked with looking at future fire scenarios, and their impact on Class I areas.

The group is looking at methodologies for this process.

1. Discussion of needs behind developing a future fire scenario –

Bob - Regarding the outcomes of this process on regional haze metrics, there is a baseline projection based on five years of monitoring data, and I’m not sure what the utility is of Future Fire Scenarios (FFS) for the next round of SIPs.

Bob- The EPA did update their guidance with a statistical metric that is intended to keep to focus on impairment and remove anomalies such as fire. Rx fire in particular can be taken into consideration. Example: GLacier National Park, where a 95% approach may not necessarily exclude all wildfire impacts, the EPA will consider additional ways to exclude those days.

Bob- Suggest focusing efforts on dedicated anthro sources like oil and gas. Could you speak to how FFS / emissions profiles would help in RH planning?

Tom- In the monitoring world, you can remove the biggest fires based on the historic record. There are implications if we hold fire constant. We can put some bounds around what the model says will happen.

Bob- Well there is some value when the EPA metric tells us one thing and the model another. Compare maximum impaired days and determine what portion is fire-caused. That portion may be considered natural (even if Rx) and therefore removed. What does modulating that in a future year get us?

Tom: The model will predict total viz impairment on all future days, this should be informed by testing these FFSs. The question is what progress can be made on RH in the context of ever-increasing fire emissions.

Kirk- Since we don’t know *exact* future fires, this is more of a sensitivity test. What is this informing? Is this just a nice-to-have?

Molly - The only thing we can control is human-caused fires, what can we really do as far as regional haze planning, other than human-caused events

Bob- I see a tertiary advantage: emissions such as NOX change the balance to have an impact on anthropogenic nitrate/sulfate. There is more primary issues to look at with our limited time: oil and gas, diffferent versions of international anthro conribs, other primary effects in future years.

Sara- Good point, we need to examine the cost/benefit of what we’re trying to do, if not useful for RH planning we should consider that.

Matt- If there is a benefit to doing phtochem modeling to 2028, then fires are a signal that is necessary to have in the model, the alternative is holding fire constant, that doesn’t seem like a good thing to do either.

If we hold it constant, is that appropriate?

Bob- if you keep it constant, then we know that signal is represented in the model. The alternative is predicting where fires may or may not be in 2028, that is pretty speculative. With how the RH rule is set up, dealing wiht each class 1 area and doing the 4 factor analysis is what needs to be worked on.

Matt- Because there is so much variability year to year, even if we’re comfortable with total emissions in FFS, where and when emissions occur is also necessary. Different assumptions would lead to totally different outcomes.

Bob- When you consider what we’ll be using the model to develop, we’ll need to include some fire contribution, but what/

Tina- As a planner, we leave our trust to the modelers re stats and math, but from a planning perspective, the rule offeres states the opportunity to put some sort of increment from RX fire on top of the 2064 endpoint. You could figure out a FFS and then what emissions would be generated, and convert that to deciviews and figure out what “extra” slope we have to deal with. After we set goals and figure out wht viz impairment will be, we have to decide if we’re above or below a line. Any opportunity to raise that bar on the GP a little higher helps planners justify their regulatory strategy. IN areas with NAAs we’re already doing everything we can to limit anthro. THe other thing is that we do want to have an average fire scenario due to the great annual fluctuation. The increment we can add to the 2064 endpoint is RX fire only, not WF. I wan tot put this in the context for planners

Not sure who? - If we have more confidence in projecting rx vs wildfires in the future, lets track or project them separately. That may be a less complicated and more in line with the rule.

Tina - RX is small compared to WF in my state. Whatever baseline we use for RX fires to 2028 I will assign to 2064. It’s a small increment but we can be relatively accurate about it. We can deal with each separately.

Sara- let’s segue to our questions, keeping in mind the above comments

1. RBFFS items: Matt

Address Matt’s questions from last call

i.      Step 1: Emissions calculations – Should we use readily-available data sources and approaches or build our own?

Matt - LOE question. In the last call I advocated for available data sources and simple methods.

 Have a draft workflow. Need activity data and emissions calculations

but considering emissions to be step 1 regardless of how fancy we get with activity data. Will use appriach from WRAP for emissions inventory. Acres X loading X combustion completeness X EF

Plugged in some initial thoughts about comb. completeness. Activity data set, using acres value to look at distribution of FCCS types in the area around the burn, applying % of each type to the formula. Allocate EFs and loading according to % of acres in each FCCS type. Pull fuel loadings from FCCS database, biomass type links to EFs,

2014 data set that we’ve already sent to the modelers. Plan is to compare this to the method described above, see how it lines up by pollutant and by state. If too different, figure out why and decide to live with it or not.

Kirk- I like how you’ve laid this out. Similar to bluesky. How does consume model fit in?

Matt- Bypassing that because integrating it would take too long. (combustion completeness ratio assumptions make a consume model unnecessary). This is a similar approach to the 2002 and 2004 baseline emissions. Algebraic approach.

 Step 2: Activity Data – Are Rx and Ag burning consistent enough on an annual basis that we can hold the activity data steady over the baseline period?

Matt- Use 2014 since it’s consistent enough?

Paul- ‘14 works for a decent average,

Not sure who? - Does the nat’l chart include alaska?

Paul- have checked and 90% sure it does.

Sara- This is the annual total of acres burned. Authorized represents additional that was not completed. ‘08 was low, otherwise pretty consistent. 50k acres/year with not a ton of fluctuation. WIldfires in ‘15 limited ag burning due to airshed already being full of smoke. Idaho is pretty steady.

Matt- Mark Fitch had agreed in general that there is some variability but it’s not so high that it’s worth teasing apart. Seems like we’re coalescing around the idea of using the 2014 year as a baseline.

 3. Can we assume that wildfire activity is highly variable on an annual and spatial basis, and can we assume that wildfire activity has increased significantly in the recent past?

Matt - presumption is that the opposite is true, high variability by nature in WF numbers. How far back to look? Lots of evidence that WF activity has increased in the last 10-20 years.

Plots look at MTBS WF acres broken out by ecoregion. Nat’l wildfire acres from NIFC, and WF acres due to climate change. All these data sets seem to point in the same direction. From interviews with land managers, fuel buildup is also a contributor, but bottom line is don’t look too far back in time since things have changed so much since the 80s. Please continue to send thoughts via email and we can bring more to discuss for next call. there’s also the need to agree on our approach.

      4 Should we build our own activity data (e.g. build seasonality, size, and frequency distributions of fires by ecoregion and burnable area), or should we use readily-available data sources and approaches?

Matt - LOE question. It makes sense to discuss overall budget to drive this discussion.

Sara- would it be useful to review these 4 qs? Is silence consent or wait a few days.

Matt we can follow up via email, or unless somone has strong objections, lets answer YES to rx consistency and Emissions calcs, same with WF variability (use average, but recent average). Continue to address where to source activity data.

* 1. Other items from Matt - Matt
1. FSWG items: (RBFFS people can leave call now)
	1. Who on FSWG would like to contribute to RBFFS? - all

Sara- who’s still here? matt, tom, tina, not kirk, andrea.

 Should RBFFS jsut report back to the FSWG group?

Andrea: lets just report back.

Sara: Beyond RH stuff, we’ve been working on SMPs, have heard from four states now. Tom’s thoughts:

* 1. Introduce Tom’s idea about a map product for the Smoke Management Plan task - Tom

Tom - on the WRAP website we have google maps in its most basic form, with layers of info about states, tribes, and air regulations.A simple approach would be develop a layer of SMPs which could pop up info windows, links, etc. Involve some outreach to state and tribal air programs to update this information, but it would be a simple way to display this on the wrap page. Sara has offered to build an ARCgis tool along the same lines but with more detail. Also something we can host on the website. So rather than prepare a report, build a map based tool.

Sara- I think it’s a great idea, can be implemented incrementally, which makes it easier to accomplish. Send info to Tom though Betsy to keep it simple. If WRAP owns the map it will live forever on their site.

Tom- Matt has built a lot of this stuff for the states and tribes.

Paul- This would be good for me and other folks in Utah and I assume nationally

Andrea- Agreed

Sara- Web map makes this more of a living product.

Tina - When do we need to answer Matt’s last question?

Matt- One week please, to consolidate the thinking before the next call. Do we need to emphasize this in an email since so many folks had to go?

Sara- highlight this as an action item in notes.

Andrea I think?- Let’s put it in the body of the email.

* 1. Next call date and time, etc. -

Two weeks from tomorrow for RBFFS - April 3, 1300 MDT.

Tom will send out invite for RBFFS call.

Tom will do so for as well for FSWG- looking at May 15, 1330 MDT.