

**WRAP FEJF Meeting
December 8 - 9, 2004
Las Vegas, Nevada**

COMPREHENSIVE LIST OF ATTENDEES

FEJF Members:

Pete Lahm, USDA-FS, FEJF Co-Chair; Darla Potter, WDEQ-AQD, FEJF Co-Chair; Mark Fitch, AZDEQ, FEJF Co-Chair; Dave Randall, Air Sciences Inc.; Bob Palzer, Sierra Club; Angel McCormack, Nez Perce Tribe; Bob Habeck, MT DEQ; Larry Biland, USEPA R9; Tom Webb, USEPA R9; Pat Shaver, USDA NRCS; Jim Lawrence, Council of Western State Foresters

Outer Circle Participants:

Don McKenzie, USDA-FERA; Chet Sergent, NV BAQP; Suraj Ahuja, USDA-FS; Darrel Johnston, WA DNR; Deb Wolfe, MT DEQ; Dave Strohm, UT DEQ-DAQ; Mike Ziolk, OR DOF; Jim Russell, FS / BLM; Aaron Worstell, NPS ARD; Paul Schlobohm, BLM NIFC; Melissa Lunden, Lawrence Berkley National Laboratory; James Scarborough, Air Sciences Inc.; Gail Tonnesen, UC Riverside; Mohammed Omary, UC Riverside; David Holoman, Pechan

Other WRAP Participants:

Don Arkell, WESTAR, State Caucus Coordinator; Tom Moore, WGA, WRAP Technical Coordinator; Mark Pitchford, NOAA, AMRF Co-Chair

By Phone:

Neva Sotolongo, CARB; Christi Gordon, USDA-FS; Cathy Messerschmidt, NTEC, Tribal Caucus Coordinator; Lisa Bye, BLM/FWS/NPS; Keith Burnette, BIA

PLEASE NOTE: These meeting notes have been prepared to capture questions, comments, and discussion on the various meeting topics. Please refer to the presentations and documents posted in association with this meeting for greater detail.

DECEMBER 8, 2004 8:00 am – 6:00 pm

Introductions (All) & Agenda Review

Announcements

- Pete Lahm accepted a Forest Service position in Washington D.C. with the Fire and Aviation staff started his new job on October 4, 2004. This is Pete's last meeting as FEJF Co-Chair. He will continue to work with all RPOs on fire. He will also retain management of the Inter-RPO Wildfire EI Project.
 - Pete's longstanding commitment to the FEJF since inception (starting in 1998, 29 FEJF meetings, 20 Cities, 11 States) and previously to the GCVTC (starting in 1992) was recognized with several gifts. The gifts were a friendly celebration of

Pete's dedication and to express the Forum's appreciation of his outstanding leadership.

- Darla and Mark will continue to Co-Chair the Forum and will be searching for a third Co-Chair.
- EPA FEJF Membership will be maintained by both Thomas Webb and Larry Biland.
- Jim Lawrence will be retiring from the Council of Western State Foresters. Until a replacement is selected, Mike Ziolko and Steve Ambrose will maintain participation as the State Forestry FEJF Member.
- Mike Wallace is the new Federal Government Member for the USDOJ from the NPS, previously held by Tim Sexton.
- Welcome to Lisa Bye's baby, Alegra Belle Vierra

FEJF Status

- Membership Vacancies
 - A Local Government position is open.
 - A Tribal position is open.
 - An Academic position on the wildland side is open.
 - A General Public position on the wildland side is open.
 - The IOC Liaison position is open.
 - Travel assistance is available for some of the Membership representatives per the WRAP structure.
 - Emphasis for alternatives to attend if FEJF Members cannot attend the meetings.
- WRAP Board Meeting
 - The 2005 Budget and Workplan were approved.
 - N / A Guidance briefing
 - Upheld Policy for Categorizing Fire Emissions
 - Discussion of Escaped Prescribed Fire and its classification as "natural", public perception, recent escaped prescribed fire event in Utah
 - Discussion of appropriate level of Guidance document approval – OK to keep that at the Forum level as Guidance is the implementation of the Policy previously approved with consensus by the WRAP Board.

Natural and Anthropogenic Guidance (Deb Wolfe)

[See Version 7 of the Guidance posted on the FEJF website.]

Overview of guidance document development

- Six versions developed by Task Team
- Directed Outreach / Targeted Review with V 6
 - 3 Sets of Comments – Editorial in Nature
- V 7 incorporates those comments and was distributed and posted on the website
- WRAP Board briefing November 2004
 - Upheld Policy for Categorizing Fire Emissions
 - Discussion of Escaped Prescribed Fire and its classification as "natural", public perception, recent escaped prescribed fire event in Utah
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Discussion on Escaped Rx Fire

- Jim Russell
 - Escaped Rx Fire is indistinguishable from wildland fire under suppression in practice and appropriate management response application
 - when a fire escapes the entire fire is a wildland fire under suppression – if it escapes it is a wildfire so the separate box for escaped is misleading – operationally the entire fire is suppressed
- Clarification that the Policy for Categorizing Fire Emissions (2001 Policy) is focused on visibility while the EPA Interim Policy is focused on NAAQS PM10 impacts and exceedances, which would be covered by the States Natural Events Action Plan (NEAP)
- Don Arkell
 - concerned about reference to Interim Policy in the 2001 Policy – in reading he reads an inconsistency between the 2001 Policy and the Interim Policy - the reference added confusion instead of clarification – the guidance needs to recognize that inconsistency
 - move forward and not hold up the Guidance at this point, leave it up to each State as to whether or not to adopt this portion of the Policy/Guidance – does not believe that the Policy should be reopened
 - question on if the entire fire is categorized as “natural” or if just the escaped portion is – wants to add a sentence to the Guidance to explain that it is just the escaped portion of the fire
- Bob Palzer
 - concern of public perception of escaped Rx fire as “natural”, was an outer circle member at the time of approval, circumvention is not his main concern
 - concern of the ability to come back to the Policy/Guidance to revisit the decisions made about categorization
- SIP / TIP reviews every 5 years – creating a mechanism to revisit this issue if there are escaped Rx fires that are affecting reasonable progress
- Jim Lawrence – understanding that Rx fire one classification, then once it escaped it is another classification

Discussion of any other concerns

- Jim Russell
 - On page 6 – quote from pg 14 – need to add an editorial note to clarify that ecosystem maintenance prescribed fire is not for ag burning
 - WFU – for resource “benefits” not “objectives”

Remand Back to Task Team for Resolution

- Escaped Rx Fire (topics for consideration)
 - Recognition of the inconsistency and differences between the two Policies to resolve those at some future point in time
 - Mitigation through NEAP for a violation of a NAAQS violation, or adverse impact of a trend
 - Entire fire is tracked as one fire and not broken into pieces by the incident commander

- Clarify difference between prescribed fire acreage and escaped acreage and how classified
- Also address other concerns expressed during the meeting
- Don Arkell, Bob Palzer, Jim Russell need to be included in the Task Team resolution discussions

Task Team Resolution will then be forwarded on to the FEJF Members for their review and approval.

Reminder from September 2004 meeting notes: The guidance document will be recommended by the FEJF for use for “natural” / “anthropogenic” classification of future fires. The final document will be presented to the IOC and TOC to promote its utilization. This document should also be distributed to states and tribes to promote its utilization.

Phase I Emissions Inventory and Continuing Tasks (Dave Randall & James Scarborough, Air Sciences)

[See presentations by Air Sciences posted on the FEJF website.]

Status (Dave Randall)

- All work to be completed by 1/1/05
- Q: What are the type of QC responses anticipated from the tribes? A: No speculation on what the QC response from the tribes may be (qualitative or quantitative) when the responses are received.
- Q: Where the tribal QC responses intended to be representative of all tribal ag burning? A: No

Natural / Anthropogenic Fire Categorization Assignments (Dave Randall)

- Categorizations are being included in the wildland fire QC notebooks.
- WFU is not always “natural” based on the Policy for Categorizing Fire Emissions. Does this assumption need to be revisited for the 2002 Phase II EI. The white paper recognizes that WFU can be both “natural” and “anthropogenic”.
- The meeting participants agreed that the “natural” / “anthropogenic” categorization is fine for a starting point, but will look for refinement in the future. Refinement in the future may include use of the FRCC, as currently there is not global enough map coverage to make that transition.
- Concern expressed about additional resources being expended to further refine the categorizations at this point in time.

Rangeland Burning on Private Lands – Technical Approach & EI Development (James Scarborough)

- Primary focus is non-federal rangelands (federal should be in existing prescribed fire 2002 EI)
- Primary data source for top-down approach should be NRCS National Resources Inventory (% of rangeland by county using Society of Rangeland Management definition) and is an available GIS coverage for 2002. www.nrcs.usda.gov/technical/NRI/
 - Link to 1997 map www.nrcs.usda.gov/technical/land/meta/m5120.html
- Add explicit tribal rangeland to sub-regional steps

- Peer reviewer suggestions
 - State NRCS contacts
 - Tribal rangeland contacts (Inter Tribal Timber Council?)
 - RMAC in California
- When doing a more specific inventory for rangeland each tribe would need to be contacted individually
- Need to check fuel loading and emission factors
- This inventory would not be used for model validation, as is consistent with the ag burning inventory as well as they are not actual event specific incidents

Sensitivity Model Run Results (Gail Tonneson & Mohammed Omary, UC Riverside)

[See presentations by UC Riverside posted on the FEJF website.]

[See White Paper Status Report posted on the FEJF website.]

- UCR website that contains the sensitivity run result plots
pah.cert.ucr.edu/aqm/308/fire_sens/diff_gifs/
- ETT will identify graphics for specific cases averaging mass over 24 hours are needed.
- Completed all sensitivity model simulations planned
- OC/EC ratio may be a useful indicator of fire occurrence where the ratio is high
- Action Items for RMC:
 - In model reconciliation – follow up to make sure ag is removed (Pre02d not Pre02c)
 - Proper caveats need to be provided with the sensitivity modeling results (impacts regionally not just at class I areas, used only for model sensitivity testing, results directly effected by the quality of the inventory)
 - Keep conclusions in terms of model sensitivity vs magnitude of impacts
 - Clearly delineate differences in magnitude scales and time period on the plots
 - Description lines need to be added to the website

Phase II Emissions Inventory and Continuing Tasks (Dave Randall & James Scarborough, Air Sciences)

[See presentations by Air Sciences posted on the FEJF website.]

Technical Refinements: Large Fires & Fire Complex Identification (Dave Randall)

- Another check was performed with the NIFC Sit. Reports
- Also need difference between single fuel loading (Phase I), weighted NFDRS, and weighted FCCS

Wildland (WF and Rx) Fire QC Packets: States, Tribes, FLMs (Dave Randall)

- Perimeter adjustment and unburned islands initial QC tasks also needs to be made clear in the QC Packets
- How to check for gaps in reporting (i.e., USDOJ-BIA information may not include wildland burning on all tribal lands)
 - may need to contact the Forestry Council to try to identify where there may be potential gaps
 - also may be able to look at the master list and see if there are any noticeable omissions

- Bob Palzer asked about involvement of environmental groups that “ground truth” burns in their area. That had not been considered to date. Bob will review one of the beta notebooks and let the Forum know if such a review would be beneficial. More of an independent audit idea – the scales of such a review may not be compatible with each other.
- State contact list may need to be improved prior to sending out the QC notebooks (concern about making sure State Forestry programs that do a lot of Rx burning are engaged)
- Qualitative statement may need to be added to the Phase II EI documentation regarding the small scale burning that is not actively tracked and therefore, has not been included in the inventory.

Ag Burning – Integration of QC responses (James Scarborough)

- Please provide the name of the contact in Colorado to Tom Webb.
- Be careful when representing acres of orchard or pecan prunings as it is misleading – maybe show tons burned versus acres.
- Ag inventory is still substantially a representative inventory. As the model is sensitive, is this inventory refined enough to be used in the model reconciliation? Probably not. The importance of these emissions varies depending on other emissions in an area. The implications about putting it in or leaving it out of the model reconciliation needs to be explored further with other Forums.

Plume Characteristics Update (James Scarborough)

- Improvement of the technique used by the WRAP (simple vertical distribution method) to come up with a more explicit treatment of the plume in CMAQ to better treat dispersion of the plume.
- Potential use of Daysmoke Model for vertical distribution of the smoke emissions.
- Another item for follow-up based on the conference calls is input file format changes.
- Daysmoke testing (modeling compared to plume measurements for prescribed burning) indicates that it seems to be working relatively well. We have no similar indicator for the WRAP method.
- EPA is also working on another method to work with CMAQ.
- The work of Sue Ferguson is connected to BlueSky not CMAQ.
- This is a change that could take place for future inventories but not for the 2002 Phase II EI.
- Further discussions need to occur before the WRAP moves in this direction.

NIF Format (James Scarborough)

- New format with a broader suite of components than that that has been used by the FEJF for the WRAP EI purposes.

Next Steps

- How to proceed forward (e.g., gap fill, documentation of uncertainties) with states that have not provided fire (ag, Rx) data to the FEJF for the EI needs to be kicked up to the IOC / TOC / WRAP for guidance. Raise to TOC liaison.

- Key considerations are what is reasonable further progress for fire and use all the tools in the toolbox (inventory, modeling, monitoring).

Wyoming Agricultural Burning EI Development (James Scarborough, Air Sciences)

[See presentation by Air Sciences posted on the FEJF website.]

- Q: Why did you use this approach? A: There was no permitting system for ag burning in place in Wyoming at the time to obtain bottom up information.
- Explanation of irrigation ditch burning: laterals (on producer property) are usually unlined 2-3 ft wide ditches and are burned full width and length, canals and distribution ditches (irrigation districts) are usually lined 20-100 ft wide ditches and are spot burned.
- Explanation of consideration of burning on tribal land for both agricultural burning and wildland burning: tribe contacted to determine that no ag burning is conducted, tribe and BIA contacted to determine that the prescribed burning is conducted by BIA and information is provided to the Air Quality Division on a burn by burn basis
- This ag inventory is the inventory provided to Air Sciences during the ag QC process for inclusion in the Phase II EI.

Utah Agricultural Burning Survey (Dave Strohm, UT DEQ-DAQ)

[See presentation by UT DEQ-DAQ posted on the FEJF website.]

- UT DEQ helped develop the survey. The nature of the survey questions, which may be interpreted as leading, did not lead to a misrepresentation of burning due to the good working relationship with the Farm Bureau and individual farmers.
- Q: How will UT DEQ maintain tracking of ag burning for the RH SIP? A: Dave will have to check with other staff at UT DEQ.
- Q: What is the magnitude of the activity/emissions from ag burning that resulted from this work? A: Dave did not bring that information with but can provide it.
- EPA initial reaction is that this appears to be a valid option for 308 SIPs for agricultural burning. The main question that comes to mind for EPA is how continued tracking of this source would be conducted. Proximity of Class I Areas is also a key concern.

Q: What about use of remote sensing for ag burning? A: There are some techniques being refined to detect short duration and low intensity burns but they are not yet to the point of being able to be used on an operational basis.

DECEMBER 9, 2004 8:00 AM – 3:30 pm

Emissions Task Team: Phase III and IV RFP (Tom Moore / Mark Fitch)

- Phase III [2000-2004] Baseline Period EI
- Phase IV [2018] Projection Year EI Scenarios
- Budget \$170,000
- Timeframe begin in late January 2005 and conclude Phase III March/April 2005, Phase IV June/July 2005
- There are still some changes to be made to the scope of work for the Phase III and IV RFP.
- December 20, 2004 @ 10 MST ETT Conference Call on the RFP

There was a lot of interest expressed in terms of the overall schedule driving deliverables, such as the Phase III and IV emission inventories. Tom Moore and Don Arkell committed to provide updates to the FEJF as two reports become available on this topic.

EDMS Update (David Holoman & Stephen Boone (by phone), PECHAN)

[See presentation by PECHAN posted on the FEJF website.]

[See documents (White Paper and Cost Estimates) posted on the FEJF website.]

- wrappedms.org
- May need to be able to access the daily fire tracking input for use via an access point for use in other applications (BlueSkyRains).
- Only portion of the flow diagram that has been created to date is the bottom most flow
EDMS Inputs: Emissions Data NIF3.0 Point and Area – EDMS Data: State-Supplied Emissions NIF3.0 – State/Tribal QA/QC Checks – EDMS Emissions Inventory Data: NIF3.0 Point and Area.

EDMS Continued (Tom Moore / Mark Fitch / Pete Lahm)

- System ready to come online, except for fire
- Next phase of the Pechan contract is for operation of EDMS and development of the fire module
- Funding
 - \$105,000 from emissions forum
 - \$40,000 from FEJF
- A lot of discussion on the best way to proceed:
 - Group here not ready to authorize Pechan to move forward at this point in time
 - Go forward with operation of EDMS so that the Phase II can be uploaded
 - Need to explore the other options available:
 - Competitive bid
 - Hooks into other systems
 - Integration of data into the system as the management of the system versus the development of additional code and structure
 - The FEJF obviously still needs to explore what is cost effective and efficient to determine what options, priorities, and level of effort is required for a Fire Tracking System.
 - Evaluate in the context of regional coordination
 - What happens when we get one year from now and we aren't anywhere on this? Is the default to go to Pechan option at a date certain (February meeting?) in the future.
 - Decision cannot be made given those individuals remaining at the meeting.
 - Talk to Implementation Workgroup, Emissions Forum
 - Conference call in beginning of January to further this discussion to make a decision on how to proceed – ETT, involve those that provided comments on the white paper as well as other users identified by Pete
 - Fire tracking system need
 - Annual emissions inventory need
 - Regional coordination need

Attribution of Haze Project Status (Mark Pitchford / Tom Moore)

[See presentations posted on the FEJF website.]

Causes of Haze Project (Mark Pitchford)

- www.coha.dri.edu
- Source of data used is wildfire focused so the map of fire is actually wildfire.
- Use '00, '01, '02 back trajectory analysis to determine source areas for burns in Class I areas by season.
- Use back trajectory analysis to compare with Blue Sky Rains '02 output and trajectories as well as WRAP modeling.
- CENRAP is doing a similar effort through a different contractor

Attribution of Haze Project (Tom Moore)

- Comments on the AoH Report when it becomes available in December are needed.
- Also take a look at what is already on the website.

Schedule Next Meetings

- February 23-24, 2005 – Seattle, WA - *[Note: after the meeting this location was changed to Salt Lake City, UT by the WRAP staff.]*
- June 7-8, 2005 – CO
 - To possibly be combined with meetings to be held with the AMRF regarding the natural background default values and IMPROVE regarding potential changes to the IMPROVE equation to reconstruct extinction.
- Fall 2005 – MT
- Winter 2005 – WA

- Meeting Topics
 - Based on task deliverables
 - Consider interactions with other Forums or Workgroups
 - February
 - 2006 Workplan
 - Status Updates
 - N/A Guidance finalized
 - FETM Project Report finalized
 - Sensitivity Runs
 - Phase I / Phase II Emissions Inventory Final Deliverables, Dave Randall, Air Sciences
 - ERT Technical Tool Development
 - Phase III & IV Status
 - Regional Coordination Element of SMPs
 - FTS Development Status
 - June
 - Inter-RPO Wildfire Emissions Inventory Update; Pete Lahm, USFS & Dave Randall, Air Sciences
 - Suggested presentations

- Paul Ervin on ag burning and emissions credits/tradeoffs, possibly even via a virtual presentation, Cathy M. contact him.

Regional Coordination of Smoke Management Programs (Deb Wolfe)

- Could use work by CoH & AoH to support a compelling reason to interest people in participating in regional coordination.
- What happens if a state/tribe doesn't adopt regional coordination into a SMP?
- What is the range of regional coordination options: simple passive to complex active.
- Brainstorming
 - Communication Side
 - Technology Side
 - Triggers for Regional Coordination, discussed in Tucson for ESMP discussions
 - Integration of EDMS
 - Other Air Quality coordination efforts in the country to use as examples and frame options (e.g., OTAG, protocol in MT NEAP)
 - Build from the minimum basics to satisfy 309(g) requirement and then continue to work on the planning end to identify the range of various options (e.g., toolbox for 308).
 - Start work with state / tribe program level input and then branch out into a broader stakeholder based task team.
 - Some tools available at the regional FLM level that could prove useful and that input would also be valuable.
 - Link to overall planning process via the implementation workgroup as well.
- E-mail to ask for additional volunteers as the number of participants at the meeting was small during this discussion.
- Deb/Bob initial skeletal options, Darla initial review, then send out to the broader Task Team
- Volunteers: Angel McCormack, Christi Gordon, Darrel Johnston

Agenda Items not addressed during the meeting due to lack of time:

- FETM Project
- ERT Task Team Technical Tool Development
- Inter-RPO Wildfire Emission Inventory
- Workplan Status