

Meeting Participants- Pete Lahm, USFS – FEJF Co-Chair; Darla Potter, WYDEQ – NBTT Co-Chair; Marcus Schmidt, USFS/BLM; Mark Fitch, AZDEQ; James Scarborough, UC Berkeley; Gretchen Bowmann, USFS; Greg Zschaechner, UT BLM; Vicky Komie, NMED; Dennis Haddow, FWS; Scott Kuehn, Plum Creek Timber, MT; Jeff Schmidt, NRCS/BLM; Patrick Shaver – NRCS; Carl Gorsky, NWS; Mark Grey, WA DNR; Dave Randall, Air Sciences; Trisha Aspland, WGA/USFS; John Graves, BIA; Francis Bernards, UTDEQ; John Veranth – University of Utah; Mike Ziolko, ORDF; Suraj Ahuja, USFS.

Initiatives Oversight Committee, Technical Oversight Committee and Forum Co-Chairs (Planning Team) Meeting Sept. 5-7 Review

Seattle Meeting, Focus on Natural Background Issues – Natural Background Policy has been approved by IOT/TOC after 6 hours of discussion, and is being pushed along to the WRAP

Funding Review

Fire Emissions Joint Forum	Task Team	Contracts in Place	Expenditures as of June 30, 2001	Projects Budgeted (Not Begun)	2002 Funding Requested	2002 Funding Approved	2002 Cuts
Review of Smoke Management Programs (EC/R)	BSMP	46,769	46,769				
Alternatives to Agricultural Burning (ERG)	Alt to Ag.	142,465	80,550				
Review of Tribal & BIA Smoke Management Plans and Els	BSMP			5,000			
Review/Develop Basis for Enhanced Smoke Mgmt. Progs.	ESMP			68,231	40,000	100,000	
Alternatives to Wildland Burning	Alt to Wild.			148,535	21,500	150,000	(20,000)
Prescribed Fires Program Assessment	PFFPA			55,000	45,000	75,000	(25,000)
Evaluate Fire Emissions Estimation Systems	ETT			53,000	25,000	70,000	(8,000)
Fire Emissions Inventory Assessment & Development (Air Science)	ETT	25,000		25,000	176,500	150,000	(50,000)
Develop Funding Mechanism for Smoke Management Programs	ESMP				25,000	25,000	
Wildland Emission Trade-Offs Review	ESMP/ETT				15,000	15,000	
Annual Burn Emission Goal Methodology	ESMP			15,000	10,000	10,000	
Public Information and Outreach	PEO			10,000	10,000	-	
Subtotal		214,234	127,319	379,766	368,000	595,000	(103,000)

Wildland Alternatives TT – Developed an RFP for non-ag burning alternatives on wildlands, not very true to the FEJF Workplan, revisions required to original before it could move forward. Released 9/25, 30-day bidding period.

Prescribed Fire Assessment TT – RFP released 9/25. Funding has been reduced by 10 K for final 2002 WRAP budget.

Fire Emissions Estimation System – Tabled for now, as Emissions Inventory for both 1996 and 2018 projections have precedence.

Fire Emissions Inventory Assessment and Development – 1996 emissions inventory for wildfire, ag, and prescribed fire is being developed. The wildfire emissions inventory product is close. \$25K has been earmarked for sole source contract with Air Sciences to finish the next phase of the wildfire emissions inventory. \$150 K earmarked for the 2018 projection work after final WRAP budget.

Develop Funding Mechanisms Task- will be under ESMPTT work effort.

Wildland Fire Emissions Tradeoff Review - Look at applicability for Fire Emissions Tradeoff Model (FETM) to achieve emissions goals, or other FEJF applications on hold until after other time-critical projects are complete.

Public Information and Outreach Materials – \$10k earmarked for FEJF Flyer for legislative parties and other constituencies. Now directed to the Communications Committee in Final FY '02 WRAP budget.

Budget Discussion -

Funds will be moved back and forth between the Task Teams, if necessary, to accommodate the Teams that may not need allocated funds. 2002 budget already allocated and approved using carry-over dollars by the appropriations committee. Overall, \$103K has been cut from the FEJF budget. WRAP is flush but still has done some cuts.

- \$25k slated for Air Sci for 1996 EI work.
- \$176.5k slated for 2018 EI (\$150k approved for 2002)
- Wildland emissions trade off review \$15k.
- Annual emission goal methodology \$25k

Cuts - \$20k Alternatives to wildland burning; \$25k prescribed fire program assessment; \$50k from emissions (budget cut based on completion uncertainty) by IOC/TOC; \$10K from Public Education and Outreach.

USDA Natural Resource Conservation Service Agricultural Air Quality Task Force (AAQTF) Discussion –

EPA has not issued a final ruling on the AAQTF guidance to agricultural burning. AAQTF has expressed discomfort in FEJF's work products, particularly NBTT policy recommendations, because agricultural interests are severely underrepresented in the FEJF, according to the AAQTF. Outreach to the Ag community may be warranted beyond the current levels. Currently the FEJF's relationship with the Ag Task force is

unclear. EPA has not taken a position. Dust from ag, and other ag sources is an issue for WRAP overall.

Ag Air Quality Task Force Burning Rec. Policy - www.nhq.nrcs.usda.gov/faca
Next AAQTF meeting is Phoenix in January – should we coordinate FEJF meeting with AAQTF? (-No)

FEJF could use further Ag. Participation from: Private ranchers, Farm Bureau Reps, Farmers, or Ag extension services representatives. Anyone who may know of such Ag interests is encouraged to invite them to participate in FEJF activities.

Public Outreach TT- Pete Lahm for Larry Biland

FEJF Flyer is still being developed, should be delivered soon.

Prescribed Fire Program Assessment TT - Frances Bernards

Section 2.2 FEJF Workplan – Assess the status of land management plans on whether or not they are incorporating smoke effects in their operational or programmatic plans. This includes land managers from all entities. Smoke effects include visibility, plumes, NAAQS, nuisance. Also, taking a look at the implementation of plans for follow-through operational plans. In addition, looking at whether non-burning alternatives are being utilized. Need to produce recommendations as to how land managers can improve smoke effects planning and consideration of alternatives.

Westar/FEJF NEPA Workshop February 28, January 2002 – Planned to help develop needed FEJF Recommendations

RFP comments are due Oct. 25 for the Prescribed Fire Program Assessment. Anyone who knows of a contractor who may be able to do the work is encouraged to contact Pete Lahm or Rich Halvey. Phase 1 & 2 should be completed before the February workshop.

Pending changes to Draft RFP

Contractors will also be looking at WFSA & air quality considerations.
Contractors will also collect information on any available guidance documents for assessing air quality impacts of burning operations.

Alternatives to Agricultural Burning TT – Pete Lahm

ERG has been delayed in producing an agricultural activity data for the Emissions TT. There will be a draft activity and residue inventory product for October 15. Other tasked items to follow.

Enhanced Smoke Management Program TT – Mike Ziolk

(See specific ESMP TT notes)

Task 2.4.2 – Develop criteria that states would have to look at when a ESMP is needed, and what elements the program will include. The enhanced smoke management element recommendation will build off the elements of the BSMP. The TT has identified some basic global tasks. Products due May, 2002 to meet the June WRAP meeting and general 309 Regional Haze Rule timing requirements.

ESMP Elements to build on:

- Emissions Tracking
- Emissions Reductions/Alternatives
- Emissions Goals
- Emissions Information Tracking (Visibility Monitoring)
- Modeling
- When/Where ESMP will be needed/used?
- Regional approach/interstate coordination/communication

Emissions TT – Pete Lahm

Currently in the process of developing emissions inventory for Agricultural, Prescribed, and Wildfire sources for 1996. The July 1996 wildfire emissions inventory was delivered in June, and the full 1996-wildfire emission inventory is currently being developed through a Sole Source Contract with Air Sciences, Inc. Prescribed fire data is currently being collected, activity data is due by Oct. 1. Some states are devoid of prescribed fire information, gap filling and methodology to be developed. Agricultural activity inventory is currently being developed, and will be delivered by the middle of October by ERG. Air Sciences, Inc. will develop emissions inventory for agricultural and prescribed fire sources as part of the current sole source contract.

With current problems of existing activity inventories, discussion is taking place as to how agencies can develop new or improve existing prescribed fire, wildfire, and agricultural activity inventories to provide for the needs of future emissions inventories and advanced emissions tracking systems.

TT Breakouts –

Emissions TT Discussion

Wildfire

NFDRS used for fuel loadings for the 1996 annual wildfire emissions inventory where not specified. Unfortunately, the NFDRS system doesn't account for duff or crown

loadings. Sam Sandberg has been developing an estimate for each fuel model to account for the additional loading of the canopy and duff layers. A “drought factor” will be built in the wildfire emissions inventory for timber fuel types that will increase consumption/emissions for these fuels. Do we use drought factor? Do we use more regionally specific fuel loading categories than the July 1996 EI?

Smolder Approach – Will help reduce plume heights by 20% by reallocating some emissions into the days after the burning occurred. NFDRS fuel models that will not smolder: A,L,T,U,C,R,E,B,F. Need smolder emissions factors

Dispersion Changes – Sam Approach (white paper)

Sam Questions: 1) Regional open/closed fuel models
 2) White Paper for Plume Height Approach
 3) Duration of Smoldering

Pete/Air Sciences 1) Drought Factor
 2) Decay Approach

Prescribed Fire

There is incomplete data for prescribed fire activity inventory for ND, NM, CA, WY, UT, NV, SD. Funding issues have not been addressed for the 2018 projections

TASKS for the ETT

Pete’s summary: 1996, 2018. WF, RxF, AgF. Lat/long-minute – spatial resolution. Hour – temporal resolution. Help from Sam Sandberg to set up hourly emissions. Next couple of weeks for turnaround of WF 1996 EI. Activity for Rx F to be in and done by 10/1. Gap fill with data that goes back to the 1980’s? Ag – still waiting for activity data.

Other issues we need to resolve for Rx fire

 Same technique to est. flaming and smoldering phases?

 Same technique to assign plume characteristics?

 Pile emission factors?

2018. Base inventory and control inventory. Competitive bid – outline at least this week.

To modify Air Sciences contract to convert from TRS to lat long using GIS process, Air Sciences will come to FEJF tomorrow for approval of change of scope. ERG is supposed to provide lat/long for ag activity.

Change Scope of work of Air Sciences Contract
Fax fuel loading table to Maarten Schroeder (ASI)

Technical issues to finalize

- Fuel loading:
- Sum of all fuel categories for base fuel loading value
- Sam's Duff/Crown table
- Do we use the DROUGHT factor (and rationale)?
- Do we use more regionally specific fuel loading data (divide a single fuel model into multiple categories with different fuel loading values).

Smoldering Exceptions:

- Grass (A,L); hardwoods (E,R); open timber/grass (C,U); sage/grass (T); intermediate brush (B,F).
- Duration of smoldering (e.g., what happens 2 days after fire, 3 days after fire, etc.) Assume smoldering for 3 days after fire event.

Smoldering emission factors – no change from basic emission factor lookup table.

Plume characteristics

Reduce plume max to 80 percent of current values in table

Get Sam to prepare a white paper describing his rationale for the plume characteristics.

Row limitations of EXCEL (max. 32k)...will have at least 60k rows for PTDAY in full wildfire EI. Options: have Model Forum build SMOKE files; or build multiple files and append.

Management questions:

- Coordinating various tasks
- Establishing and keeping schedules
- Budget cuts
- Our current management system is not functional
- Rise to the challenge of effective management of a consensus process

Ag inventory – activity data perhaps 10/1, more likely 10/15. Pete wants to keep comments on ERG's draft report open.

If the activity shows up in a permit, is it assumed to have been burned. Pat thinks that the non-federal prescribed fire source will be much bigger than shows up in our inventory. Conclusion – need to document extent of missing data as best as we can by sector and locale.

BSMP TT Discussion –

BSMP Summary posted on the website in July... only one comment received. Elements of BSMP appear as of now to be accepted, Scott Kuehn will participate in the ESMP TT. The status of the report for Tribal BSMP's is unknown, 5K will be needed for ITEP to obtain copies of actual programs from the tribes – these are required before the BSMP TT can make recommendations as to what is a "basic" or what might be an "advanced" tribal

smoke management program. GET COMMENTS TO SCOTT AND DIANE FOR FINAL DRAFT BSMP REPORT – COMMENTS DUE OCT. 20..

5K earmarked for ITEP with the Forum's consensus.

ESMP TT Discussion -

Funding/Tasks – Facilitator will be needed, as will additional budget allocations from present. Specific dollar amounts needed are not known at this time, although most likely will be considerable. Additional ESMP TT meetings will be needed.

Prescribed Fire Smoke Effects Discussion –

NEPA Workshop – Get representative from CEQ to answer NEPA questions. May be best to hold workshop in March/April so that TT will have more time to hone the products of the contract.

Funding/Tasks – Phase III may require more money than is currently allocated. May need an additional 50K to complete the work (including the 25k that has already been cut).

Pat Shaver to help and possibly Jim Lawrence to help draft out recommendations.

ETT

Existing Sole source contract with Air Sciences may be amended to accommodate the development of an emissions inventory produced by the agricultural, prescribed, and wildfire activity inventory. An additional 25 K is needed to complete the emissions inventory (Approved 9/28 by FEFJ consensus). The modified contract scope will include GIS work for TRS conversion into lat/lon for the prescribed fire activity inventory, as well as the need for the development of a more complex smoldering/crown/duff activity layer that will span emissions for each burn day over three days. This will call for a different file format (currently .xls) to accommodate the significant increase in activity records. An RFP has not been developed at this time for the 2018 emissions projections, although input for the RFP is requested over the next couple of weeks. Draft Finalized activity spreadsheet for wildfires is complete and is available for review. Prescribed fire and Agricultural Activity data will be turned over for emissions to Air Sciences, Inc.

FEJF Meeting Park City, UT

9/28/01

Breakout Groups

ESMPTT

Participants: Marcus Schmidt, CO BLM/USFS; Jeff Schmidt BLM- (NRCS), AZ; Gretchen Barkmann, USFS NM; Vicky Komie, DEQ, NM; Mike Ziolk, ODF (chair), DEQ, AZ; Mark Grey, WDNR; Greg Zschaechner, Utah BLM; Pete Lahm, USFS; John Graves, BIA AZ; Suraj Ahuja, USFS, R5.

Mike's Opening Comments

- General overview of work to be done
 - ESMPTT is developing framework for enhanced smoke mgt program requirements.
- Relationship with ETT and NBTT work
 - Other task teams have needs from ESMPTT and have identified needs for ESMPTT to address. ETT needing some emissions methodology; ESMPTT needs to refine "manage" and "control" from NBTT.
- Review of GCVTC and Regional Haze Ruel requirements

A. Considerations from GCVTC

1. Efficiency
2. Economics
3. Law
4. Land management objectives
5. Reduction of visibility impacts

B. Considerations from RHR

1. Minimize emissions
2. Smoke dispersion
3. Alternatives
4. Public notification
5. AQ Monitoring
6. Surveillance/monitoring
7. Evaluation

Pete's comments:

ETT and NBTT Needs "Range"

Other task teams need output from ESMPTT. ESMPTT work combines elements of all task teams and builds ESMP framework.

1. Criteria for ESMP

ETT-focusing on developing an emissions inventory, modeling will be done March 2002 for 309 states. 2018 emissions projection will also be

produced with controls and without controls. Where potentially will ESMPs be applied? Most immediate needs of ETT are:

- Criteria needed for what are states will be in 2018 submissions with ESMP
- Annual goal methodology needed, ASAP

NBTT/IOC-wants to see greater explanations as to what is natural and anthropogenic. Also looking for clarity for management vs control and what does this mean for BSMP and ESMPs. As ESMP is developed, need to know how natural background will fit into an ESMP and how emissions will be managed vs controlled.

2. Annual Goal Methodology

Part of the ESMP process, although there is no consensus as to what these goals will be. Goals will be achieved through use of burning alternatives, emission reduction techniques... ETT needs a "range of control strategies and alternatives. Are we looking at a goal or a cap?

Differences between 308 and 309 requirements:

- 309 states' reasonable progress means emissions reduction, not visibility improvement
- 308 states' reasonable progress means visibility improvement.
- Tribes can opt into 309
- California appears to be heading towards 308 status to focus on health issues, but see benefit in WRAP modeling/EI work
- 308-ag and wildlands address adequacy and apportionment for all sources

Due dates:

Criteria and annual goal methodology needed ASAP

5/2002-ESMP recommendations/framework for consideration at 6/2002 WRAP meeting

12/31/2003-SIPs from 309 states to EPA

Funding

1. Framework and recommendations-\$100,000
2. Emission Goal \$10,000 (plus \$15,000 which is included in 1)
3. Funding mechanism \$25,000
4. FETM (w/ETT) \$15,000

Group Discussion

Criteria to Trigger ESMP (review from August 27, 2001 conference call)

1. Implementation, which states will need to have an ESMP? How will ag, tribes, or other types of unregulated burning or burning conducted under an existing BSMP be

affected by the implementation of an ESMP? Also need to consider transport from WRAP states to Class I areas in other states.

Possible triggers for ESMP:

1. Receptors and/or # of receptors
2. Proximity to receptors
3. Significant ag burning
4. Energy development
5. Fire use for natural resource benefits
6. Population
7. Non attainment areas
8. Significant increase in emissions
9. Mou with enforcement provisions
10. Entire state/partial state/multistate
11. Matrix condidering activity vs source/source area
12. Emissions of "x" tons/day

2. What will be the elements of an ESMP?

Our assumption is that elements of a BSMP are already in place.

ESMP elements to build on..

1. Emissions tracking
2. Emissions reductions/alternatives
3. Emissions goals
4. Emissions information tracking (visibility monitoring)
5. Modeling
6. When/where ESMP will be need/used
7. Regional approach/interstate coordination/communication

The ESMPTT developed mission and goal statements, shown below.

Mission Statement

By working with other Task teams, identify, develop and deliver the framework requirements of FEJF for ESMPs and annual emission goal methodology.

Goals

1. Identify when ESMPs would be implemented
2. Describe in detail the elements of an ESMP
3. Provide an annual goal methodology

1. A schedule for key meetings and products was developed.

Discussion about the need and ability to conduct a workshop to present ideas and solicit input. Given the tight time frame under which the TT is operating, we tentatively agreed to go with extended outreach instead of conducting a workshop. The need for facilitation for the group's work was also identified. (see #3, below).

October 19th task group ideas to Mike
 26th Mike summarize and get info to task group
 31st Conference call to discuss elements and matrix

November

December 4-5th FEJF Meeting
 6th and morning of 7th, Task Team meeting

January

February 5th afternoon, ESMP
 6th and 7th, FEJF discuss draft work

March

ESMP meeting? Or conf call

April

Final draft ready. ESMP meeting?

May

14th ESMP all day
15th-16th FEJF
 when is IOC/TOC? Do we need to coordinate with their meeting?

June

WRAP meeting

3. Facilitator and budget

Sufficient funds are available for a facilitator to be hired. The TT has a short time frame in which to work, too. NBTT budget for workshop and facilitator was presented by Darla Potter.

Costs for NBTT work:

Workshops		
	Denver	\$ 9,500
	Phoenix	\$ 4,000
Consultant (18 mos)		\$67,000
6 TT meetings:		\$ 2,873

What would facilitator do for the TT?

- Work with small workgroups as necessary
- Work with ESMPPTT
- Coordinate work
- Review documents

Action item: Mike will draft a Scope of Work for TT review for work from Oct - May 2002.

4. Consider development of a criteria matrix to determine when an ESMP is needed.

Four major areas were identified. ESMPs may be necessary depending upon a range of areal coverage or impact potential ranging from the project level to multi-regional level. Need to refine and complete where and when ESMP would be required. Matrix developed from earlier discussion (#1)

Criteria Matrix

Area source	Project	County	Airshed	Tribe or state	Multi-state	All WRAP	Other region (non-WRAP)
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- A. **(GROUP)**
 - 1. Receptor of sig smoke from another area
 - 2. Source of sig smoke to another area
 - 3. Population/density
 - 4. Non-attainment areas
 - 5. Combined Class I/Nonattainment area concern
 - 6. Proximity to Class I area
- B. **(GROUP)**
 - 1. Potential to impact
 - 2. Significant increase in emissions
 - 3. Number of Class I areas
 - 4. Emissions of "x" tons/day
 - 5. Fuel loading "x" tons/day
 - 6. "x" acres/day-per "x" fuel type
 - 7. total acreage
- C. **COMPETING SOURCES (CUMULATIVE EFFECTS)**
 - 1. Point source energy development
 - 2. Fire for natural resource benefits
 - 3. Size of emission reduction ratio/potential
 - 4. Diversity of concurrent fire sources (ag/rx/wild)
 - 5. Other area sources
- D. **(GROUP)**
 - 1. MOU with enforcement provisions
 - 2. Number of NAAQS violations
 - 3. Failure to successfully implement BSM

5. Workgroups were clarified that would identify elements in an ESMP. (follow-up to groups established in Aug 27 conference call.)

Global task areas for elements in ESMP (volunteer group leader listed first). Each workgroup would identify what potential strategies could be included in its respective topic area. List will be sent to Mike and compiled for review on Oct 31 conference call.

1. Emissions tracking: Suraj, Vicky, Bob, Mark G
2. Emission Reductions/Alternatives: Mark G., Bob, Scott, Vicky
3. Emissions Goals: (no leader), Mark F., Dave Randall, Pete, Bob
4. Emissions info tracking (visibility monitoring): Marcus, Greg, Mark G, Bob, (John G?)
5. Modeling: (no leader), Mark F, Suraj, Bob
6. Regional Approach/coordination: Greg, Marcus, Frances, (Jeff?)
7. Funding Mechanism (review BSMP wildland survey): Gretchen, Marcus, Trish

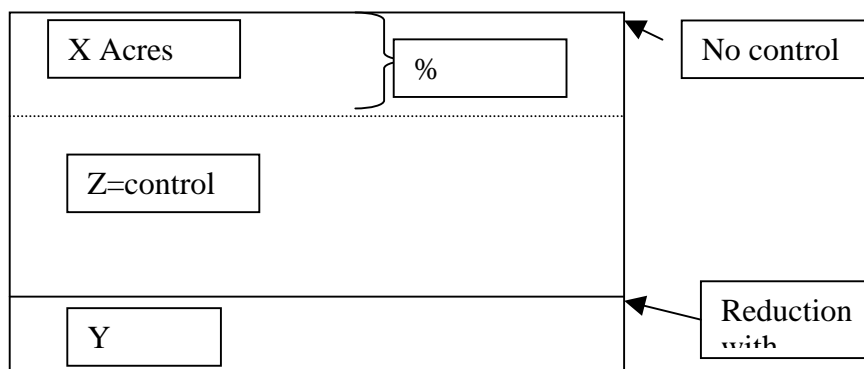
6. Annual Goal Methodology

Pete provided further explanation on what is required for annual goal methodology work. ESMPPTT needs to address the following:

1. Is the emissions goal a cap or a goal to work towards? GCVTC says it is a cap. Others say it is a goal.
2. What sectors fit into an annual goal---natural sources? Anthropogenic sources? Or???
3. To what type of averaging period does the goal apply (1 year, 5 years, seasonal????)
4. Is maintenance burning included or not?
5. Is wildfire excluded?
6. What areas or types of land do we include or exclude.

7. Controls

Pete provided the group with an example of possible control requirements, shown below. ESMPs capture emission goals; BSMPs address emission reductions. BSMP uses the EPA Interim Policy on Fire; ESMP uses RHR requirements.



– Meeting Announcements –

Next FEJF Meetings –December 4 & 5 San Diego, CA
February 6 & 7 Tucson, AZ
May 13 & 14... destination unknown

-Adjourn-