

**Western Regional Air Partnership
Fire Emissions Joint Forum Meeting
Phoenix, AZ
Wednesday, February 09 and Thursday, February 10, 2000**

I. WRAP Funding and Workplans

FEJF Introductions and Overview.

- State of Nevada declared that it will be going through the 308 process (not the regional approach under 309). Nevada will need guidance on Natural Background
- \$1 million of \$1.5 FY99 budget, check is in the mail to WRAP. Mike George noted new provision that quality assurance will be needed for all technical work.
- WRAP proposal to EPA for FY 2000 is \$4 million of the \$5 million allocated to address regional haze.
- Pat Cummins has replaced John Leary at WGA who has retired.
- WRAP is having a general meeting in late April. Natural background should be addressed by FEJF at that session
- Margie Perkins has officially resigned from the IOC. A new IOC liaison will be assigned to the FEJF
- WRAP Communications Plan is finalized and has been posted on the WRAP website.

II. Discussion of Draft Task Team Operating Principals

Changes incorporated from Spokane discussion:

- Two week review of Draft Task Team Products.
- Task teams responsible of development of work.
- Constituents and stakeholders will need to operate through FEJF member.
- Conference calls used to address significant SOW issues if needed.
- Minor changes in RFP addressed by FEJF Co-chair
- Proposal review by FEJF Co-chairs (Cc), Task Team Co-chairs, and two TT members to review different proposals

Dave Randall - 5-6 people to address issues? Might be difficult to find that many people.

Further issues? Shelley - Are we going to keep a list server available to post updates on the internet? Pete will send out notifications. Cc will notify members of postings

Dave – design work and website updates can be discussed at meetings so that no problems posting on the internet. Pdf format so that documents can't be manipulated

III. Discussion of Basic Smoke Management Plan

Scope of work, Dianne Riley and Scott Kuehn

3 Scope of work Smoke management Workplan 2.3.1

1) Forest and Range wildlands (summarized tasks within document.)

Tasks

Resurvey 8 states with new questions from EPA (29 states have already been surveyed)

Survey states that haven't been surveyed

ECR review responses before finalizing reports

(Question) Dianne -Are these questions adequate? Concise?

Shelley needs clarification on a question

(Question) Pete asks if local jurisdictions are included in the RFP to be surveyed?

Add question - does your state have local programs? How many? Summarize. (Kirk Rowdabaugh agrees that there could be critical elements in smaller programs)
Contractor should contact the state to inquire about individual air programs. This issue needs to specifically be addressed in agricultural burning. (materials, methodologies laid out for ECR. Dave Randall suggests that workplan RFP should be more of a detailed Task Order. Make tasks specific as possible)

(Supplement) \$25-30k allocated, ECR has time this spring, summer will be late

(Question) Mark Fitch - Are the tribes beings surveyed as well?

Yes, some correspondence

(Question) What are states' application of fire? (to get an idea of what kind of smoke management program is needed. Where, why, how much?)

Dave - indicates this may be an assessment task

Carol - recommends changing question 15b

Mark - this question will be addressed in a different task group

Pete - will have some answers about SMP through emissions questions

(Question) Shelley- how is this information going to be used?

- a) Have clearinghouse
- b) Pete- Have recommendations for states to use in their bsm (specific elements that address regional haze, emissions inventories, etc.)

(Question) Shelley- who is going to use what for what purpose so that people can do whatever they want with it?

- a) Mark – take a look at EPA’s assessment on state by state SMPs

2) Agricultural burning

Tasks

Look at previous responses - WESTAR, contact states before questions are finalized, then re-survey states with additional questions

Survey Other states outside the Western US (FL, NC), as well as international ag burning programs if good examples

(supplement) Keep price in mind and how many states to survey outside of WRAP.

Scope

Which agencies have ag programs?

Which programs will be selected?

Further,

Contracted through RFP

Revise list of states surveyed (AK will be included, and HI. Maybe as optional states)

Survey local districts, and make sure all states are covered

Evaluate responses

Resurvey states that submitted incomplete or unusable data

Add 15-20 additional questions to survey, resurvey.

States need to be filling out the surveys, not the contractor

Contractor’s job to contact the state dept of ag

Contractor collects information first and then submits back to the state. (Same methodologies for both ag and wild land fire to ensure cooperation and consistency)

Determine where ag programs are.

Come up with a listing of programs in each of the states, as well as program specifics on both the state and local levels.

IV. Discussion of BSMP Tribal Survey – Bobby Ramirez –Co-chair of Tribal Data Development Workgroup

1) Burning on Tribal Lands

TDD to develop and emissions inventory data on tribal lands

Issues,

Cultural/Sovereignty/Administrative barriers (CAA)
Communication/Outreach

Have contracted out (NAU -ITEP) information gathering from over 200 tribes throughout the west

Tasks

Develop a centralized repository for tribal air quality data

Gain a contact with the tribe, is there a air quality/ smoke mgmt program? Is there an emissions inventory?

Long-term: What kind of smoke management program?
(8 to 10 tribes estimated to have a bsmp)

Contact the tribes, collect data on tribal programs

Find out which tribes have smp's

Assess the emissions inventories so that it may be used by the WRAP

Develop software program and template to create a useful emissions inventory

(Supplement) Time constraints will not necessarily be a concern to most tribes. Nor will time frames or pressuring tribes for information on tribal burning be helpful. Surveying and gathering information in a stepwise progression will provide information, and start the exchange of data. Tribes may need additional funding

Next step....

Initial survey done at the end of March

Wait until we get information from NAU, as to which tribes have SMPs.

Tribes will need specific questions from FEJF to address SMP specifics.

Will the Tribes be willing to answer? (won't know until finalize questions end of March concurrent time frame with survey)

Will funding be available? (a few possibilities are discussed -EPA Grant, WRAP monies) will probably not be an issue since so few anticipated to have programs

Have new question added into survey on tribal data development

V. 1. Discussion of Draft Air Quality Policy on Agricultural Burning

Recommendations from the Ag Air Quality Task Force (FACA)

- Recommendations are being reviewed by the Dept. of Ag.

- Recommendations will be edited, including all relevant rec by 21 offices

- Recommendations will not be changed, but Dept policy review will be included in the finalized draft

AG land definition with definition in FEJF workplan. Includes, cropland, rangeland (private and public), conservation reserve program lands, pasturelands.

Basic recommendation will be that there be a 2 tier smp approach

Tier 1 – for instances where there are no serious air quality problems due to burning. Define criteria under which anyone can burn. Request that landowner keeps records of what was burned.

Tier 2 – for instance where there may be air quality problems due to burning. The Tier 2 program will accommodate public health and welfare needs. These areas will have an ag burning manager and burning programs will vary from simple (get permit and abide by burn/no burn call by burn manager) or significantly more complex.

Bob – question

Public rangeland is going to fit into both wild land and agriculture policies?

EPA is going to have a public process if this goes to rulemaking. For now, for regulatory purposes under the AAQTF's recommendations, all rangeland will fall under the Ag definition.

Dave, comment - For FEJF purposes, rangelands would be included under wild lands. In spite of this difference in the definition of Ag lands, it should not impede what the FEJF has set out to do re: ag burning. Our final recommendations will need to reflect the regulatory structure that applies to rangelands.

Carol - Recommendations will be broad enough for all 50 states

If the Department has to go to Congress to create new law, will be up to Congress

Bob- question

Section for research needs. There isn't any good dispersion modeling. Any comments coming in?

Nope, but comments on the recommendations have been received from Texas A&M and UC Davis

VI. Discussion of RFP for Development of Non-Burning Management Alternatives on Agricultural Lands

1. Identify crops. (Needs to be taken crop by crop (wheat, rice, barely, grass Alf alpha, ditches irrigation canals))

2. Identify by crop non-burning alternatives

Develop criteria for reasonable non-burning alternatives

Develop smoke abatement cost curve by crop type

(Went Through Handout task by task)

Identifying and overcoming administrative barriers particularly important

Consultant requirements are that it needs to be someone who is familiar with agriculture

(Question) Carol - question on funding, and what Pete has decided to include under the allocated budget. Dave agreed that all tasks within the proposal be included in the RFP. Suggested that, if all funding will not be available at the outset, that contract be structured so that each deliverable can be associated with a specific dollar amount. This will allow for more effective management of the contractor.

Pat - Count on \$70K for agriculture contract here and now.

Pat- The WRAP's share of \$5 million FY2000 has not been decided. Must identify and articulate financial needs before it can be

The main thing is that work is not being done twice between the emissions inventory forum and the FEJF

Needs to be discussion with Pete concerning:

1) The funding that we have, how to put this out

(2) The non-burning alternatives content issues, coordinating among the different RFPs, how much the initial RFP will cover Pat – (again) \$70k budget

VII. Discussion of FEJF Storyline

Important messages:

a) John - import language from GCVTC on fire, and insert pages that tell the story, and more description of the four workgroups and what their doing, and bring in some figures, and pictures.

Further Ideas:

Dave – storyline needs to be general, role of fire emissions, incorporating air quality, wrap, and visibility.

Pete – Mark Wagoner wanted to see role of fire in agriculture
And where all agencies are headed with fire programs

Will need to be re-outlined and redefined

Dave created a bullet list of Storyline objectives and a list of items to be included in the content of the Storyline. He will pass these on to John Kennedy and the two will work together to draft the Storyline and distribute it to the FEJF for review.

Breakout sessions

Emissions group
SMP group
Agricultural groups

SMP Group

In surveying BSMP/ESMP EPA survey did not adequately address workgroup questions. Need to supplement with additional questions

Two needs

Have scope of work so that start working with ERC

Finalize draft Questions

1. What agency office has authority to make burn/no burn decisions (time control daily, yearly, monthly)
2. regional coordination – (more clarification on coordination if there is coordination. Word as voluntary instead of courtesy)
3. Is participation (voluntary or mandatory) in the smoke management program by land managers mandatory? (if participation is not mandatory, who isn't covered by the MOU)
4. What types of burning are covered by the program (Would there be any other type of regulatory process that covers burners not covered under the smp) How many burns and acres are proposed and accomplished annually? (how to figure out proposed acres? How to account for PNF?)
5. all the preauthorization needed annual or daily
6. How does the regulatory authority make burn/no burn decisions
7. ok
8. What incentives are there for the use of alternatives to burning and emissions reduction techniques - ok
15. ok

A DROP QUESTION
B MOVED TO 4

16. (What elements or activities concerning public outreach are included in your smoke management program?)
17. (How does the central authority ensure compliance with the smoke management program?)
18. ok
19. ok
20. combine 20 and 21
- 22 ok
- 23 (clarify by asking for program objectives)

VIII. BSMP/Emissions/Storyline Reports

Storyline

I. Purpose and audience

Audience – interested public (document needs to be easily accessible)

Purpose – to address wildlands and agricultural fire impacts on air quality, role of fire in the ecosystem, role of fire as a

land management and production tool, prescribed fire objectives, what the FEJF is doing and why. Why fire is being dealt with in an air quality forum and how the FEJF intends to address air quality issues through making better fire management decisions that incorporate air quality. (include: who, why, where, and how). Review and supplement where necessary documents that have already told the story of fire, air quality, and FEJF involvement between the two. Explain the benefits and the values of this effort to the target audience. How this group is going to manage smoke impacts to benefit the audience (less on the role of fire). Make it short and sweet. Make clear how the recommendations of the forum will affect land management decisions, make air quality better/more livable. Include visibility pictures, fire pictures, before/after, ect. Pictures of now, during fire, and after fire. Maybe also historic, present, after fire. Visibility before and after. Include balanced use of graphics.

Run the storyline through the WRAP Communications Committee.

Ag Alternatives RFP

Pete - RFP is tiered so that as money is made available and responsibilities become more and more defined so the rfp doesn't have to be re-contracted with 90 days delay. Dave - Work with specific deliverables with as specified amount of funding, so that there aren't any financial holdups in the process.

AG – need to identify crops, and then identify the crops that are burned more than the others (top 5) before identifying alternatives – prioritization process added to RFP

Mark and Brian will be working on evaluating the RFP, then Pete, before it goes through the WGA. Needs further specifics on emissions.

BSMP only funding available is from fy99 budget. (\$25K) Tribal programs can be handled internally, and should not require additional money. May develop and ad-hoc team for tribal programs.

Day 2

Role of Natural Background in Planning for Regional Haze (Shawn Kendall-TOC Co-chair)



Natural conditions on both the cleanest and the worst days

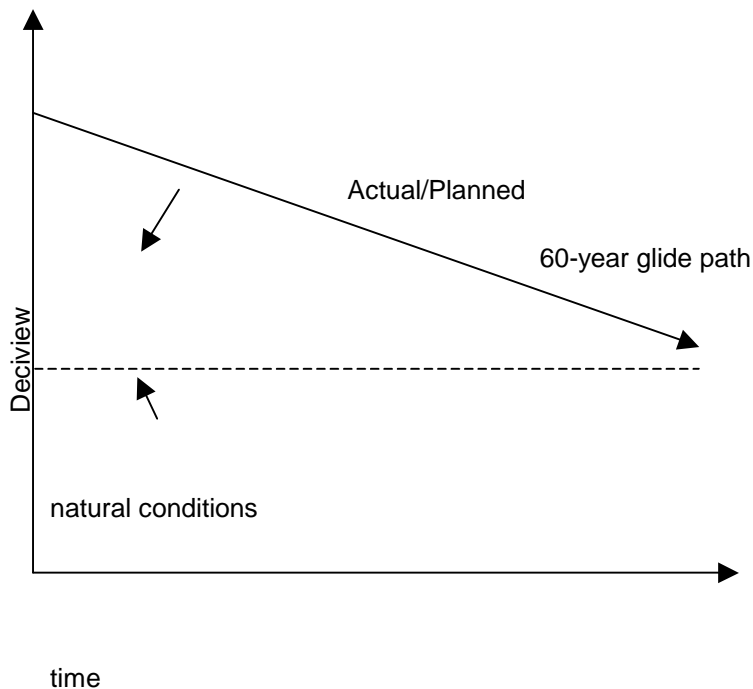
Natural conditions consist of:

Miscellaneous conditions (biogenics, volcanoes, water vapor, sulfates)

Windblown dust

Fire (included in the 20% worst days, but probably no 20% best)

EXAMPLE OF A HIGHLY IMPAIRED SITE

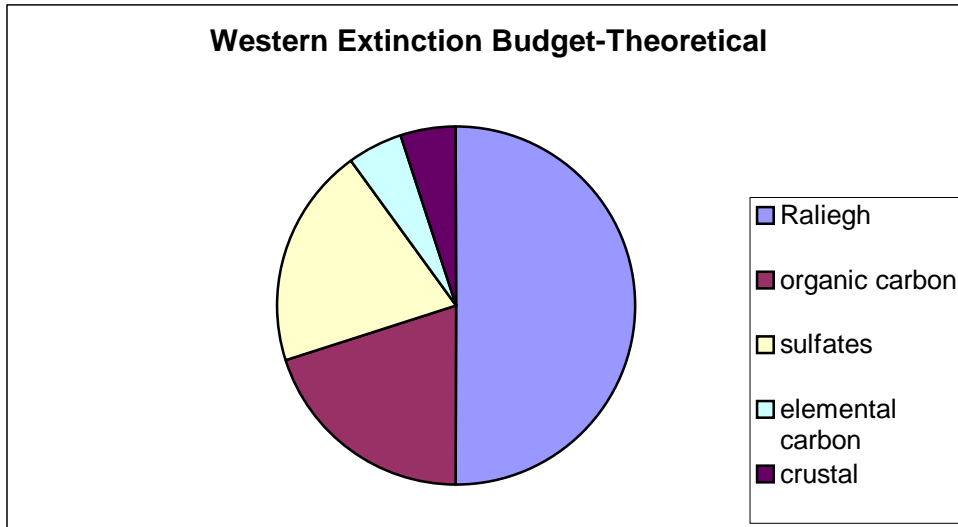


Pollution sources that are man made are not part of the natural background
The working definition of what is “Natural background” will begin in about a month, and may take up to a year. Philosophical ideas are one thing, but keep in mind number generations...method is needed.

Regional haze – figure out natural, so that actual or planned emission reductions can be reduced in such a way that the total impact on visibility conditions can be reduced to approach natural background visibility conditions. First need to define what are natural levels of wildfire emission.

FEJF's part

FEJF needs to support and consult with the modeling and the emissions group, as well as the monitoring group. FEJF is responsible for providing the science, as well as the policy and making recommendations as to whether rx fire should be included as part of natural background.



Light extinction budget (Marc Pitchford-Ambient Monitoring & Reporting Forum Co-chair)

Measure of the fraction of light lost per unit of length measured

Total extinction (sum of species) = species (concentration x species specific extinction coefficient) + Raleigh (natural) scattering of clean air.

Formula seems to work treating species independently even though species can combine with one another in a variety of combinations.

Ways to change aerosol concentrations

NUMBER CONSERVED/SIZE CHANGED
SIZE CONSERVED/NUMBER CHANGED

Again, this demonstration seems to show that regardless of the changes in physical characteristics of aerosols, the extinction formula seems to work.

Smoke from fire includes mostly elemental, and organic carbon, as well as some soil/dust

Proposal is that for every sampling day (3 days sampling for aerosols), concentrations of pollutants that cause light extinction will be allocated to various emission sources. Then further subdivided into what was natural and what was manmade.

Background

GCVTC assumed that ½ or all of the organic material measured in samples was natural
For WRAP, smoke from veg burning is not clearly divided into what is natural
and what is made.

FEJF Tasks:

policy: vegetative burning needs to be subdivided into natural and anthropogenic emissions categories that are un-ambiguously defined

technical: estimates of natural and anthropogenic vegetative burning smoke emissions (eg in tons per day) need to be known as a function of location and time

temporal vs spatial - wants an emissions estimate for each day

natural for historic emissions

natural for anthropogenic emissions

Discussion:

all prescribed fire emissions need to be defined as part of the natural background because the fuel, although an unnatural quantity, is there Emissions will understandably be less in the future than they are now. The point is that the fuel will burn today or tomorrow. But it is natural for it to burn. Maybe good idea to look at historic quantities of fuels in a specific region or area throughout the west, use the natural fire interval for that fuel type for that region to determine what is natural, rather than looking at emissions.

Pete

Need to define the policy before technical information and methodologies can be collected and streamlined

Interaction between natural background emissions for ag, prescribed, and wildfire
(Is all fire natural?)

Workshops (3 proposed) needed to reach consensus and eliminate dichotomies:

- 1 Policy options
 - a. Info needs/literature search (bring info to workshop)
 - b. Pre work
 - c. Develop guidelines
 - d. Criteria for policy options
 - e. Criteria for use of alternatives
2. Which policies are both technical in methodologies (quantification) and are viable in terms of feasibility (budget, market trading) and are legal
- 3 Finalize a policy that is both technical and viable

Start with forum members, and then include other key stakeholders into the process before policy is finalized

Natural cannot be controlled?

Need a definition of natural

How much of the smoke is natural

Issues after lunch:

- Focus on the manmade component to make it smaller, smaller, and smaller
- Minimize new and existing manmade sources of criteria pollutants
- Focus on manmade emissions on prescribed fire, wildfire, and agricultural burning
- Develop baseline conditions that will be determined from monitoring data
- Start with what conditions are now and how you would like them to be in the future
- Still need to define what is natural. Example being “is it natural to have smokier air in the springtime in Montana.”
- role of smoke management programs

Concerns

Tim Sexton - over the next 10-30 years, NPS is going to burn out of season to transition back in to when fire is supposed to burn

Randall - Minimize increases to the greatest extent possible to come up with something that's workable. Focus on solutions that have a chance to fly. IE, throw out idea that all smoke from veg burning is natural AND throw out the idea that all smoke from veg burning is manmade. The practical answer lies somewhere in the middle.

Nolde - Need to spend some time clarifying intent of the regional haze rule, the CAA, to minimize the increases to the greatest extent possible.

Veranth - If the emissions are directly related to a commodity output, then the public will not consider these emissions as natural.

Incorporate hazardous fuels as of greatest importance in policy

Public acceptance – public will accept that you have to have fire in some cases for some reasons. But if the presented rationale is that burning is simply cheaper than other options, then public will chose clean air and is willing to pay

Comment - Need to synergize, not separate manmade and natural, because the two are not necessarily different. For ag, perhaps quantify historical emissions from a farmland, base on fuel loading and what used to grow there, quantify emissions from ag burning

today from what's growing there now, the difference then becomes the anthropogenic emissions. (everything is natural, but some of it is added by man)

Dave - Looking at too much here, need to only cover:

- Baseline emissions assessment

- Future modeling of emissions

- What sort of SMP are going to reduce future emissions

(Supplement) This is not a matter of smoke, matter of burning

define emissions

define smoke management

manage smoke

(Question) How much of prescribed fire can you justify putting in the natural category?

Is this true of ag?

Get answers and the some level of acceptances in workshop(s)

Natural Background Task Team

Tim Sexton, NPS

Bill Leehouts, US F&W

Fred Greef, WA Ecology Co-chair

Carl Gossard, BLM Co-chair

Jim Russell, USFS

Sam Sandberg, USFS

Dave Randall, Air Sciences – small business

List as many policy options as you can, solicit further options from outside sources, then get back together as a forum to discuss and finalize policy (basically adhere to the workshop format)

Options need to be collected and sent out to folks 30 days prior to the next forum meeting

(April 17-19) in Sacramento

End