

Smoke Management Review Committee Meeting  
Oregon Department of Forestry  
Operations Conference Room, Salem  
October 16, 2003  
0930-1530

In Attendance: Stephen Fitzgerald, Gary Stevens, Mike Dykzeul, Gregory McClarren, Erik Christiansen, Stan Benson, Lee Miller, Jim Russell, Jim Brown, Brian Jennison, David Collier, Mike Ziolko, and Cindy Smith, notetaker.

Absent: Geoff Babb

Visitors: Marvin Brown, State Forester, Mike White, CFPA, Harold Merritt, Plum Creek Timberlands, Brian Finneran, Nick Yonker, and Jerry Anderson, Boise.

1. **Administrivia**

Mike Ziolko, ODF

Mike Ziolko noted that the Fee Rule Proposal is out for public comment through 5:00 p.m., November 3, 2003.

2. **State Forester Discussion**

Following introductions of the Smoke Management Review Committee members to State Forester, Marvin Brown, background and objectives of the SMRC were presented by committee members.

**The National Fire Plan** – a presentation by Erik Christiansen

Four Points:

1. Fuels Management program continues to grow.
  - About 55 million dollars was dedicated to fuels management for Oregon and Washington (BLM and USFS) for FY03 and anticipate a similar budget for FY04.
  - In the last three years, nearly 500,000 acres were treated in Oregon.
2. Both agencies continue to work on reducing emissions from prescribed fire.
  - Biomass utilization is encouraged but is limited by the market. Erik stressed that finding markets for biomass is an area that needs to be developed.
  - Both machine and handpiling are used and covering piles with plastic or paper is important in broadening the window for burning and reducing emissions.
  - An automated program, FASTRACS, is used to track all burning and determine emissions.
3. Maintenance burns are critical.
  - Because fire regimes have become altered, condition classes have changed and need to be returned to the normal range. Erik stressed that the use of fire through prescribed burning will be critical in maintaining them. He added that the use of prescribed fire would help control and minimize emissions.
4. Community involvement and cooperation.
  - Erik pointed out that determining the best locations for fuels treatments programs is important under the NFP. In Oregon alone he noted that there are more than 400 communities at risk and prioritizing that list is a daunting project. Numerous groups including the National Fire Plan Strategy Team, part of the PNWCG (Pacific Northwest Coordinating Group), are working on the issue through community risk assessments, mitigation plans, etc.
  - Erik noted that one success was the one stop grants process through the NFP. The process results in more funds to spend on private grounds through the various federal agencies. Applicants need fill out only one grant application to apply for numerous grants and the appropriate grant is applied.

Erik concluded his comments with the fact that he anticipates continued growth and the need for the continued ability to utilize prescribed burns to reduce the risk of fire.

### **The Forestry Plan for Oregon – Stephen Fitzgerald**

A brief summary of the FPFO was presented by Stephen Fitzgerald. He explained that the SMRC was given the opportunity to review the FPFO and make comment to the Board of Forestry.

Comments made to the board included reference to the fact that forests also provide clean air and that the Smoke Management Plan for Oregon is a successful program and as a result Oregon is a leader in smoke management in the country.

Mike Dykzeul added his appreciation that the comments were well accepted and those points are now incorporated in the latest draft of the FPFO. He stressed the importance of keeping Oregon in a leadership role and meeting the stakeholders objectives and protecting our abilities to burn – and doing it responsibly. Mike added that putting it in the FPFO document raises the publics understanding that it is regulated and regulated well.

### **Northwest Collaborative Air Priorities Project (NWCAPP) – Mike Dykzeul**

Mike Dykzeul credited Barb McAllister of EPA Region 10 with coming up with the concept of holding an Air Summit of delegates from throughout the Northwest and Canada. Mike participated on the leadership team representing industry.

NWCAPP was held in Seattle in June for three days with the concept being to develop a list of priorities. Mike explained that following much dialog, eight priorities and a mission statement were agreed upon. Additionally, a list of 17 promising projects was developed. Those projects are all moving forward.

Mike Dykzeul continues to work on a regional smoke management coordination project, an effort to reduce emissions from agricultural and forest burning.

### **NAAQS - PM 10 and PM 2.5 - David Collier**

A PowerPoint presentation, “Summary PM10 and PM 2.5 Trends in Oregon” was presented by David Collier. Copies of the presentation were provided to all present.

David explained that a broad network of monitors throughout the state is used to monitor PM 10 and PM 2.5 particulate. In the late 80’s, Oregon had areas not in compliance with the Clean Air Act for PM10. Those areas are now in compliance for the PM10 standard. The PM 2.5 has been monitored for only a few years but David said no non-attainment areas are expected for PM 2.5 in 2004 when the EPA makes its initial designations.

David explained that there are two standards for compliance – an Annual Average and a Daily (24 Hour) standard. The daily PM 2.5 NAAQS is 65 ug/m<sup>3</sup> (micrograms per cubic meter). The particulate can be influenced by meteorology, local emission sources and regional air mass that comes in and influences the readings. The annual PM 2.5 NAAQS is 15ug/m<sup>3</sup>. David noted that he expected it to be the most difficult to meet but so far it has been good.

According to David, the EPA and the Science Advisory Group are currently evaluating public health research and said that the latest research suggests that public health impacts can occur at particulate levels lower than the current federal standards. A decision is expected sometime in 2005 regarding the need to revise the standard.

Preliminary EPA recommendations recently published in a draft staff paper include a consideration of revising the PM10 and PM2.5 standards, changing the PM10 fraction to include fine and coarse particulate, continued use of the annual and 24-hour averaging times for PM2.4, an annual PM2.5 NAAQS range of 12 to 15 ug/m<sup>3</sup>, revising the daily (24-hour) PM2.5 NAAQS to a range of 30 to 50 ug/m<sup>3</sup>, keeping the 98<sup>th</sup> percentile form of daily NAAQS, development of new PM2.5-10 standards, selecting an annual PM2.5-10 NAAQS from a range of 13-30 ug/m<sup>3</sup> and Daily PM2.5-10 from a range of 30-75 ug/m<sup>3</sup> and use of the 98<sup>th</sup> percentile for the PM2.5-10. David noted that some of the recommendations could prove difficult as demonstrated on the graphs.

David noted the role of the Smoke Management Plan in minimizing smoke intrusions from prescribed burning and therefore protecting the public from short-term health impacts and preventing prescribed burning impacts from causing a NAAQS violation.

#### **Email from Mark Wall Regarding Smoke Intrusion - Brian Jennison**

Brian shared the email he received from Mark Wall, Roseburg Forest Products, who was present at the last meeting and brought up the issue of an intrusion. He looked into it and determined that it had occurred on April 4, 2003, over the Eugene metro area. The intrusion was observed and declared by Ken Ockfen, ODF, Veneta, who reported it to Salem with an intrusion report subsequently logged and recorded. Mark Wall requested information on what LRAPA had recorded that day in terms of low level air quality impacts and was interested in finding out if there was a correlation between the intrusions and a decrease in air quality as recorded by his agency.

Brian noted that the monitoring system was working and the nephelometers were recording impacts and added that the intrusion was not a violation of the NAAQS standard. He will check and see how many complaints were received regarding this intrusion

Jim Russell added that public health episodes are more prevalent with wildfires than with prescribed fire.

#### **Miscellaneous Comment – Greg McClarren**

Greg presented a summary of research he compiled regarding the air quality impacts caused by the Band B and the Davis Fires on Bend, Oregon. Measurement was taken in downtown Bend. The emissions breached the standard but were for a brief time period. Greg added that impacts on other areas, including Terrebon, Madras and Redmond were far different because of the weather patterns. He described his evidence as anecdotal evidence – a spike in calls to respiratory physicians, visits to doctors and visits to emergency rooms.

#### **Difficult Issues - Stephen Fitzgerald**

1. Designing and funding a smoke management organization that maintains leadership yet achieves objectives on the ground. Looking at the organization from the people, the technology and the programs that are involved in the organization.
  - Jim Russell noted a statewide strategy is needed, explaining that currently the Smoke Management Plan covers only Class 1 Forestland. He noted that there is a tremendous amount of rangeland burning that is voluntarily tracked via FASTER. Jim suggested looking at equity relative to managing these issues throughout the state.
  - Jim Brown questioned "why leadership?" He added that it would be inappropriate for ODF to become responsible for all the smoke in the state. But ODF could take the initiative in getting the agencies together to work on the issue.
    - Jim Russell defined leadership as "taking an established system that works well and spreading that umbrella throughout the state."
  - Greg McClarren noted that the public has no one place to call and get answers they have questions concerning air quality issues. He added that the goal is to maintain air quality, minimize smoke impacts and provide good service to the public. Gregg concluded that only one program is needed and that ODF has made great progress and should continue to do so.
  - Stephen Fitzgerald suggested that after looking at all the changes that are coming through Regional haze, changes in the standards, etc., the first step is to step back and look at what kind of program is needed to accomplish the goal. He suggested looking at where the program is and where it needs to go in order to determine what resources are needed to meet future needs.
2. Conflicting goals of air quality improvement with forest health, silviculture and hazard reduction.

- Mike Dykzeul noted that this is a big concern of his and said that more research is needed and a need exists to educate the public as to why we are burning, recognizing health concerns, stocking goals and risk of violating state standards. Just cause you can see it and smell it doesn't mean that it's an intrusion. Mike added that a pro-active approach is very important.
  - Gary Stevens added that the educational element is essential and the more the people understand the process - what it is about and why the burning is allowed and that it is being managed and that there is an adequate system in place would help reduce public outrage.
  - Jim Brown suggested that having one place to call and get answers would reduce much of the public's frustration.
3. Smoke management coordination. There are multiple agencies responsible for smoke management – with conflicting goals and approaches. This is a place for leadership by ODF in coordination and streamlining.
  4. Fee based program.
    - Mike Dykzeul related this issue back to having consistent funding. He suggested a unified approach to meet everyone's accomplishments and provide an equitable funding structure to maintain a strong program rather than cyclic funding problem.
    - Jim Brown pointed out that if the people using the program pay for it, the vagaries of the funding would not be an issue.
    - Greg McClarren added that the challenge is designing and structuring funding for the future program. He suggested that it needs to be fee based and equitable but include some general funding because the public at large benefits.
    - Jim Russell commented that it takes a lot of time to track for a fee based system and would prefer a lump sum payment – on a percentage of the cost of what the program costs to run. Combined with general funds would be a logical solution to him.

**Consensus** – Steven Fitzgerald noted that it is too early to determine the consensus at this point as this committee will begin decision making next month.

### **Marvin's Comments**

State Forester, Marvin Brown concluded his visit to the SMRC with the following comments:

Regarding funding, Marvin agreed that the landowner should not have to bear all the costs because it (Smoke Management) provides a public benefit that the public should have some responsibility for. He added that the federal lump sum sounded reasonable but was concerned with the general funding aspect because, by nature it is not stable but added that support from people – the constituents - for the importance of the program makes it more stable. The constituents have to be willing to step up to the plate.

Marvin said he had no problem with being the vehicle to achieve what is needed as far as leadership or expanding the program is concerned. He suggested that any time we can offer efficiencies we should do that for the sake of the taxpayers. He noted that if that were where all the principals want to go he would be supportive.

As far as department activities are concerned, Marvin noted that because of numerous issues including funding, the Department would be initiating a broad scale evaluation of the fire program, including smoke management.

He also noted that Forest Practices and Forestry Assistance programs have been merged into one administrative unit to save costs and look at developing a new program over time.

Asked what he perceived as the biggest challenge for the Department, Marvin replied that rebuilding connections with the constituents prior to the next budget cycle and having the Department again be recognized as one that really is listening.

### **3. Break**

#### 4. Minutes

Following correction of some typos, the September 2003 minutes were accepted as revised. The motion was made by Greg McClarren and seconded by Jim Brown.

#### 5. Public Comments

There was no public comment at this time.

#### 6. Continuation of Issues Discussion

Discussion of Matrix Item G was postponed until after lunch.

#### 7. Working Lunch

##### Plastic on Piles Update

##### Sub-Committee

The Plastic on Piles Discussion was taken out of order and discussed during the working lunch.

Speaking for the Sub-committee, Mike Dykzeul said four comments were received on the Draft Report of the Chemical Analysis of the Plastic. He noted that all of the comments were similar in that they pointed to a need for an executive summary, in English, as well as a summary at the end of each chapter. Some minor revisions to the introduction were suggested and those comments will be submitted back to the contractor.

When the evaluation was first begun, Mike Dykzeul explained that one part was to be the chemical analysis and the second was to be an evaluation of what other states were actually doing. He found that all too often plastic was still being used even though it is a prohibited substance – a sort of “don’t ask don’t tell” policy. After approximately a dozen calls Mike said he discontinued calling because he felt the chemical analysis would supersede any anecdotal evidence collected from other states.

At David Collier's request, Mike sent the email, which is attached to these minutes. From DEQ's perspective, David said that what other states are doing is very important.

- David Collier said he still needs more data in order to see both sides of the issue. He asked if other states accomplish burn goals without the use of plastic, why can't Oregon? If other states are using something other than plastic, he wanted to know specifically what it was.
- Stephen Fitzgerald said he disagreed and said that what other states did was not relevant to Oregon, because their circumstances are different. He thought that it needed to be fitted to Oregon – to our users and their objectives and was interested in the science behind it. Unless other states had toxicological information or other information on alternatives, he felt it was irrelevant.
- Mike Ziolkowski noted that one of the assumptions DEQ made was that it (plastic) was toxic and presumably one of the basis for the open burning rule was to prevent burning plastic because of its toxic nature – the study says it's not toxic therefore it need not be a prohibited material.
- David Collier replied that they need to see the research and give it to a toxicologist.
  - It was noted that a toxicologist did the research contained in Draft Report.
- Stan Benson noted that it appeared that DEQ wanted ODF to light the fuse between the forest industry in other states and their environmental agencies.
- David Collier asked if it was possible to get an accurate assessment of what our neighbors were doing without causing a lot of problems and Stan Benson replied that he did not see how.

Greg McClarren said it appeared that much of the state is violating OAR – the problem is that DEQ is charged with administering and enforcing that OAR – he asked that DEQ not try to enforce it this year, or next year, and added that the problem needs to be solved. He said the problem would be how to eliminate the hazard, accomplish a variety of land management goals, including air quality, in an effective and efficient way. Greg suggested that additional data would be required.

David Collier assured committee members that the DEQ recognizes the sensitivity of the issue and is not going to rush to enforcement law while they try to figure it out. He would like more enough info on the alternative side to assist in decision making.

Stephen Fitzgerald reiterated that David wanted more information on 1.) What other states are doing and why Oregon is different and 2.) Information regarding alternatives and asked who would have the authority to answer those questions to DEQ's satisfaction.

David Collier responded that Jim Russell's contractor posed some good questions in one of the emails that he would like to see the answers to. What alternatives are being used in addition to plastic and what they did.

Greg McClarren noted that the literature search that the Committee contracted for through Jim Russell was focused on PE and asked if we could find out about wildland pile fire characteristics. He also asked what alternatives presently exist and what future alternatives would solve the problem.

Gary Stevens expressed his concern that Pandora's box could be opened if using plastics on piles is allowed. He was also interested in what normal combustion temperatures are because there was discussion concerning a range of ignition temperatures.

It was suggested that it would be valuable to compare emissions reports from piles burned with and without the use of plastics.

Stan Benson suggested that the next step would be to summarize the survey information that has been collected and perhaps expand, lump the information together to prevent specific identification of respondents and prevent party versus party debate, and go to regulatory agencies of other states to see what they do and do not allow.

- Mike Dykzeul said he felt he had already done this.
- David Collier said he didn't know what to do with the "don't ask don't tell".
- Mike Dykzeul noted that differences in circumstances are an important variable as well.

Harold Merritt asked why go out of state since we (industry) have tried everything on the market and the reason industry uses plastic is because it works.

Mike Dykzeul asked if it would be helpful to DEQ if reports of what products were tried were submitted by some of the industry representatives. He thought it might offer some level of acceptance. Mike thought it was being taken very literally by the enforcement side and suggested a clarification of the amount actually consumed in a pile.

David Collier said he still struggled with why it had to be plastic and questioned if there was not a suitable alternative product to use.

Greg McClarren pointed out that depending on geographic area there are some alternatives – but often none are suitable. He said its really about change - change for DEQ and change for those who use plastic to cover the piles. He doesn't think the EQC is going to like forestry burning PE in the forest no matter what the science or circumstances are.

Jim Brown noted that quite often plastic is burned to dispose of it while the purpose here is not to burn plastic but to facilitate burning the slash pile. He felt the distinction should be made and added that the emissions from burning the plastic covered pile may be less objectionable than burning a wet pile

Jim Russell said the contract has been completed for the literature study and is now waiting for the final report.

- Greg McClarren added that the Committee should wait for the final report before continuing the debate.

Brian Jennison pointed out that the Committee is an advisory committee. He asked David Collier how the rule gets changed and what the process is.

- David Collier replied that the department (DEQ) initiates rule making – a proposal is presented and sent for public hearing. He thought it was also permissible to petition the EQC.
- Brian Finneran added that it might end up that a review is made to determine why the rules aren't being enforced by DEQ.
- Lee Miller pointed out that this is a classic example of science against bureaucracy and asked what it would take to get it through the system now that we have the science.

- Jim Russell suggested an interagency approach – preparing a report documenting the findings and recommendations of the Committee and requesting the Board of Forestry to ask DEQ to consider revisions to the open burning regulations based on the industrial use of plastics. He expressed his concern about timing and said he would like to see an interim step before we get to another burn season because he did not want to see it become a political issue.

Mike Ziolkowski said he didn't think Tim's report (PE contract) would be any different and asked what needed to be done to satisfy DEQ.

- Jim Russell wanted a completed report in hand because the issue is toxicity.
- David Collier reiterated that the report mentioned looking at alternatives and asked if there would be more information about alternatives.
- Jim Russell said the contract was for an exhaustive literature study and that's all there was on alternatives.

David Collier said DEQ understands the need to cover piles under certain circumstances but questions why it must be plastic – what makes Oregon different?

Stephen Fitzgerald asked David what he specifically needed and who would be authoritative to provide that answer? Testimony from people who use it?

David Collier asked if it was a cost issue?

Jim Russell replied that it's an operational issue – 60,000 acres a year are done in this region, much of which is hand piled.

Brian Finneran said that DEQ typically does something like the literature search followed by a test in order to make a decision relative to the toxicity.

David Collier said there are other questions. He noted that the alternative seems to be paper and asked what kind of paper? What's in it? He noted that the durability of paper is an issue, cost is an issue, and asked how much more cost and how durable is it.

- Jim Russell responded that the Committee had been down this road and referred David to the testimony provided by Randy Clark at an earlier meeting.
- David Collier asked if there was some way to get a definitive answer. He asked if a non-chemically treated paper product would work, why not use it?
- Mike Dykzeul noted Montana uses a product that DEQ and the landowner both recognize as having chemicals and yet DEQ has approved its use.
- David asked if all the paper products are treated and numerous committee members assured him that there is no untreated paper available to do the job.
- Greg McClarren suggested a chart with clear PE, colored PE, untreated paper, treated paper, etc. showing the characteristics of each. Decisions and recommendations could then be made.
- David Collier said DEQ would still be asked if there were alternatives to plastic.
- Jim Brown suggested contacting Randy Clark and getting a review from him of the alternatives he has tried. He would then email the committee members with that information.
- Stephen Fitzgerald suggested identifying what the alternative has been treated with.
- Brian Finneran noted that they can set up monitoring equipment in the field and get the science – it could easily be done in the field. Very precise emissions were done for field burning. It just takes time and money.
- Jim Russell said there was no need to go to the expense
- Brian Finneran disagreed and said he saw it as the next step.
- Jim Russell said he would be happy to supply the testing site.
- Brian Finneran noted DEQ would not and should not be paying for it
- Jerry Anderson, Boise, made the following comments:

1. Regarding a comparison of different states, he said it was not appropriate to compare different regions because of differences in precipitation and temperatures.
2. He pointed out that if an alternative is cost prohibitive, industry won't use it – that result could be different than intended
3. Jerry said he understood all values are not based on science but when it's not, there's usually a misconception because people don't know or understand the science.
4. He concluded with adding that the Committee should show leadership by taking the findings, based on science, and educating the people it reports to.

Gary Stevens said he realized that the Committees comfort level might not be DEQ's comfort level and added that the Committee needed to do what it could to provide additional information to contribute to the process.

Stephen Fitzgerald said the Committee could still make recommendation to the Board of forestry. There will be further discussion upon receipt of the contractor's report.

## **8. Regional Haze Update**

Brian Finneran reported that he is preparing to send out the proposed rule-making package for public comment. Public Hearings are scheduled for:

- Nov 19, at 6-8 p.m., in Portland and Bend
- Nov 20, at 6-8 p.m., in Medford and Pendleton
- Nov 21<sup>st</sup> is the end of the public comment period.

The hearings are scheduled for the same locations that stakeholder and public outreach meetings were held at earlier in the year.

December 5<sup>th</sup>, the rule making goes to EQC for approval and then must be submitted to EPA by December 31, 2003. Brian reminded committee members that failure to meet the December 31<sup>st</sup> deadline would mean DEQ could not submit a 309 SIP and would have to go to the 308 SIP process which is more complicated.

He said there would be an opportunity to provide comments on the fire section at the public hearings. In summary, Brian said the DEQ is saying in the Regional Haze Rule is that the current Oregon Smoke Management Plan meets most of the requirements of the Regional Haze Rule (RHR). Two areas need additional work and there will be additional submissions on those. They are:

1. Identifying the process for identifying the barriers to alternatives and pursuing alternatives to burning
2. Setting annual emissions goals for fire utilizing ERT's. We'll need to identify how ERT's are tracked in Oregon and provide estimates of emissions that are saved by using ERT's. The RHR requirement says you will identify what is being done to reduce emissions by ERT's as an element of the Smoke Management Plan. You have to pursue alternatives no matter what. The idea is that you are reducing overall emissions that could contribute to Regional Haze

Brian will send electronic copies of the draft to those who requested it and it will be available on the web.

## **9. Continuation of Issues Discussion**

Discussion of Issue G from the Matrix – How may the Admin rules be changed. Discussion was deferred until a later date.

David Collier would like to reorganize the Matrix.

## **10. Public Comments**

There was no public comment at this time.

## **11. Break**

**Additional Smoke Management Review Committee meetings were scheduled for:  
January 22, 2004  
Feb 18, 2004**

**12. Adjourn**

The meeting adjourned at 1415.

The November meeting of the Smoke Management Review Committee was cancelled. The Committee will meet for two days in December instead.

**The Next Meetings are December 17 and 18, 2003**  
Items of discussion will include Plastic on Piles Issue

Committee information may be found on the web at:

[http://www.odf.state.or.us/DIVISIONS/protection/fire\\_protection/smp/SMR/SM\\_Review.asp](http://www.odf.state.or.us/DIVISIONS/protection/fire_protection/smp/SMR/SM_Review.asp)

**Attachment 1**  
**Referenced in Agenda Item 7**

MessageFrom: COLLIER David  
Sent: Wednesday, October 08, 2003 7:18 PM  
To: ZIOLKO Mike E; Jim Russell; Fitzgerald Stephen; Pager DYKZEUL Mike  
Cc: COLLIER David  
Subject: Update-Plastics Issue

Hi Mike(s), Jim, and Steve.

I've been briefing my management about our progress on the plastics issue. The investigation of burning polyethylene seems to be coming on fine, but we are concerned that the second avenue of investigation we agreed to is not getting as much attention. As I've reminded the group in several past emails, we had all initially agreed to look into this issue on two tracks simultaneously. The first was to get better emissions information on the burning of piles and PE. The second was get more information on the use of plastics and alternatives in other states and find out more about their practices to we can make a fair comparison to Oregon. Mike Dykzeul was kind enough to make some calls and reported that other states really were using plastic (even though it was prohibited) under a "don't ask-don't tell" policy.

I think some have the expectation that if emissions from PE in pile burns can be acknowledged as "acceptable", then it does not matter what other states do on this issue (so why put a lot of effort into researching it). DEQ's thinks that it is very important to find out how other states handle this issue, no matter what the results of the PE research may be. If other states are not using plastic, then we still have the fundamental question: Why do we need to use plastic in Oregon? Weather conditions should be similar in other NW states. Alternatives should cost as much in other states, labor too, so why can other states function with no plastic, but not Oregon? I know many feel we are not getting a straight answer from other states on their practices, which is exactly why DEQ is looking for more factual information (there is no lack of personal opinion) and documentation on these points (so a fair comparison can be made).

What can we do to further clarify what other states are doing and why? What are the relevant differences in forest and smoke management practices between Oregon and other states that make it necessary for Oregon to use plastic?

In one recent email from Tim Reinhardt, he listed the following questions to be answered: "What alternatives to PE is the Forest Service considering"? Are any being used now? Who is hawking "impregnated paper" or other alternatives, and what are they? Are BLM or the NPS using alternatives to plastic?" These are good questions, and we're interested in the answers. In Tim's draft report, only one paragraph was devoted to the use of paper as an alternative to plastic. I think this option deserves more discussion in the report. Someone has also mentioned biodegradable plastic. Do you know anything about that?

When the next draft of Tim's report is ready, and we have more information on what's happening in other states, it might be good for DEQ, ODF, and USFS to meet and review all the information together, ask questions of each other, etc.

How would you suggest we proceed?

Thanks  
dc

PS: One of our staff in the eastern region office has a Forest Service contact in northern California. Perhaps he would be a good person to contact to see what his experience is with plastic and alternatives. Our sense from talking with him is that plastic is not necessary (at least not in the geographic area he covers).