

Chapter 5

Conclusions and Recommendations

Discussion

The investigations conducted during the preparation of this document suggest several salient points.

1. A sound range of nonburning alternatives to prescribed burning currently exists, and emerging technologies await capitalization.
2. Perceived regulatory and administrative barriers to the use of nonburning alternatives could perhaps be addressed through education and training on the part of land managers and air quality management officials. For example, as discussed in the preceding chapters, the NEPA process is sometimes initiated in such a fashion that nonburning alternatives are omitted from serious consideration. To ameliorate this problem, proponents of nonburning alternatives could be trained to use the existing procedural requirements of the NEPA review process to ensure that such alternatives are appropriately considered.
3. Because some of the obstacles to nonburning alternatives are economic, there is a need to develop technologies that encourage use of these alternatives. Such externalities should be weighed not only against the costs of prescribed burning, but also against the potential savings and revenues that could be realized by development of new industries that produce energy, reduce air quality impacts, and create job opportunities.
4. Despite the advantages of nonburning alternatives in the context of air quality impacts, the interviews suggest that prescribed fire will remain a critical component of many vegetation and fuel management programs. Accordingly, programs should be designed to increase the proportion of nonburning techniques such that air quality impacts are substantially reduced.

The increased acceptance of nonburning alternatives is dependent on a change of mindset. Resource agencies, industry groups, environmental groups, and community groups must all be willing to reassess their preconceptions if significant progress is to be made in combating the dual problem of air quality and fire risk.

Recommendations

A number of recommendations emerged from the process the authors followed in preparing this report. Because the recommendations in many cases cross the organizational structure followed in previous chapters, that structure has been suspended for this discussion.

- **Promote consideration of nonburning alternatives within land management and air quality agencies.** This should be undertaken at the agency policy or land management plan level. For instance, every federal agency has its own set of guidelines for NEPA compliance; proponents of nonburning alternatives could suggest that relevant agencies adopt measures requiring consideration of nonburning alternatives in the process of developing vegetation and fuel management plans.
- **Promote proactive participation in the NEPA review process.** The WRAP states could disseminate educational materials to proponents of nonburning alternatives to promote early engagement in the NEPA scoping and review process. Where appropriate, the purpose and need portion of the project description could be broadened to include nonburning alternatives.
- **Initiate an outreach and education program.** One area of outreach should be directed to the public to promote acceptance of nonburning alternatives as environmentally responsible. A parallel program should be developed for resource agency staff to promote acceptance of nonburning alternatives and to encourage inclusion of such alternatives in analyses conducted during development of planning documents.
- **Promote administrative and economic support of infrastructure development.** If nonburning alternatives are to be successful, additional infrastructure is necessary. The development of local and regional biomass utilization programs should be investigated. Such programs offer opportunities for entrepreneurial innovation; economic redevelopment of depressed rural communities (particularly those impacted by the contraction of the timber industry); reduction of increasing waste disposal problems; and reduction of air quality impacts.
- **Encourage nonindustrial utilization programs.** In concert with the preceding item, opportunities for development of value-added enterprises abound. These should be investigated and encouraged.

A Final Word

The present fuels situation developed because management strategies failed to consider both the complexity of the natural systems they were attempting to manage and the potential unintended consequences of management actions. Because a great deal remains to be discovered about the mechanics of ecosystems and the interrelationships of seemingly disparate events, it is important to consider a range of solutions appropriate to the magnitude and complexity of the problems they are intended to address.