



Stakeholder Priorities for Deciding Where to Burn

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This document summarizes the following article:

Costanza, J. K., and A. Moody. 2011. Deciding where to burn: stakeholder priorities for prescribed burning of a fire-dependent ecosystem. *Ecology and Society* 16(1): 14. url: www.ecologyandsociety.org/vol16/iss1/art14.

PARTNERING TO MEET OBJECTIVES

Partnerships among public agencies, private entities, and other individuals are an increasingly common way to facilitate ecosystem conservation, especially in fire-dependent landscapes. For example, partnerships can provide mechanisms through which stakeholders share costs, staff, and other resources to promote fire use. However, the stakeholders involved in such partnerships have different perspectives about how to prioritize sites for burning and the factors that constrain prescribed burning. A mutual understanding of one another's perspectives would help stakeholders successfully collaborate to facilitate prescribed burning. A recent study investigated the differences in practitioners' and non-practitioners' perceptions of fire management in the Onslow Bight region of eastern North Carolina, where a partnership has been established to promote prescribed burning in the longleaf pine (*Pinus palustris*) ecosystem.

In the longleaf pine ecosystem in the southeastern US, re-source management overwhelmingly involves the use of prescribed fire, which is critical to meeting management goals. Longleaf pine forests and woodlands likely burned every one to three years prior to European settlement. The ecosystem provides habitat for many wildlife species, and when frequently burned can have some of the highest levels of plant species richness of any ecosystem in North America. However, due to widespread timber harvesting and fire suppression, the ecosystem has changed substantially.

Through an online survey of individuals involved in planning and implementing prescribed fire in the Onslow Bight, this research examined the constraints to burning and the criteria used to prioritize parcels for burning. Respondents belonged to one of three stakeholder groups:

1. prescribed burn practitioners from agencies;
2. practitioners from private companies such as forestry consultants; and
3. non-practitioners such as research academics, biologists, and others who provide input to practitioners.

STAKEHOLDER PERSPECTIVES AND PRIORITIES

Results show that the stakeholder groups examined did not differ in their perceptions of constraints to burning, and development near potentially burned sites was the most important constraint they identified. The top criteria used by stakeholders to decide where to burn were the time since a site was last burned and a site's ecosystem health, with preference given to recently burned sites that were already in good health. Differences among stakeholder groups almost always pertained to perceptions of the non-ecological impacts of burning. Prescribed burning priorities of the two groups of practitioners, and particularly practitioners from private companies, tended to be most influenced by non-ecological factors, such as the ability to control smoke. In addition, practitioners from private companies deprioritized sites that have not been burned recently or are in the wildland-urban interface (WUI). These results highlight the different perspectives that stakeholder groups bring to prioritizing sites for prescribed burning. In particular, it is difficult to burn sites that have not been burned recently or are in the WUI, despite widespread state laws in the southeastern US that limit the liability of prescribed burn practitioners. To avoid ecosystem degradation on sites that are challenging to burn, particularly those in the WUI, conservation partnerships can facilitate demonstration projects involving public and private burn practitioners on those sites. For practitioners and non-practitioners involved in multi-stakeholder partnerships, it is important to recognize different perspectives and rationales for burn site prioritization. Equally important is identifying the similarities and shared perceptions that exist, which often form the basis for successful partnerships.

SUMMARY

Multi-stakeholder partnerships have become an increasingly common way to meet fire management objectives, and understanding partner priorities for prescribed burning can facilitate collaborative burn projects.



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