

Demand for Prescribed Fire on Private Lands in the Mid-Atlantic United States

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Restoring fire across the eastern US landscapes is complicated by a diverse mix of public and private land ownerships. In the Mid-Atlantic region, most prescribed burning occurs on public lands. However, three-fourths of forestlands in this region are privately owned which means the potential for private lands burning is significant.

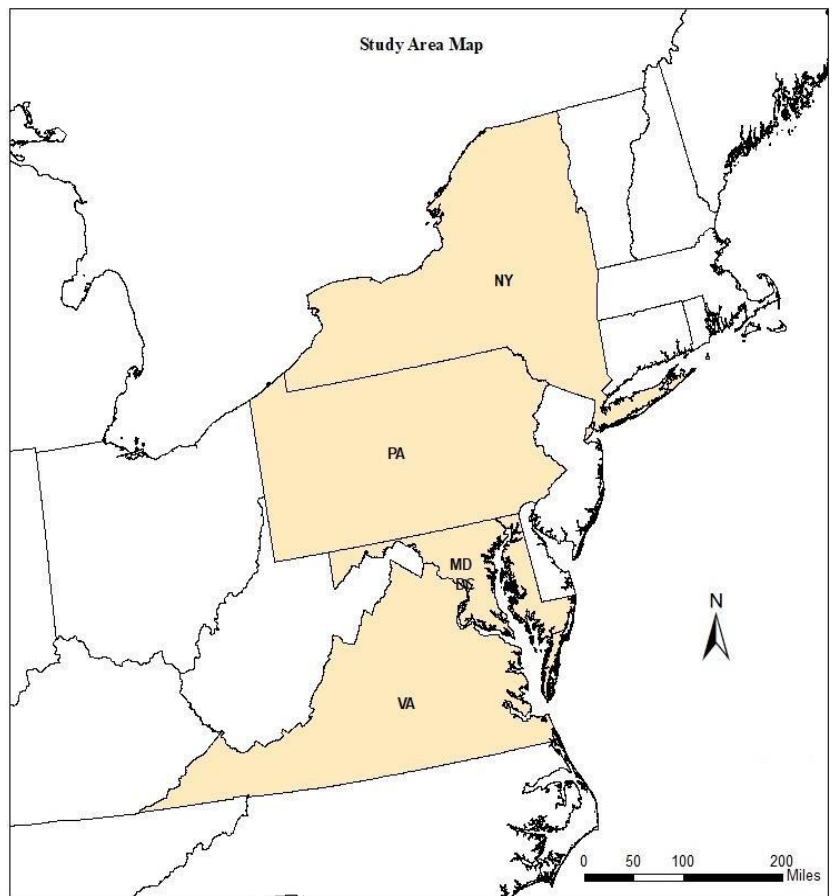
This research conducted a regional survey of private landowners regarding their knowledge and interest in prescribed burning with the intent of informing policies that support prescribed burning. This project builds on a 2021 survey conducted in Pennsylvania by Arun Regmi to help inform the design of an extension education program about private lands burning. A research brief of this paper can be found [here](#). Of the 2,050 respondents contacted, 482 surveys were returned with an adjusted return rate of 25%, 430 of the responses were classified as usable. The survey was designed and distributed using mixed modes (i.e., mail and web).

Research Questions

1. Do landowners in the Mid-Atlantic region see prescribed fire as a valuable land management tool?
2. Which factors influence landowner decisions to burn?
3. Are there regional differences in landowner perspectives about prescribed fire?

Study Objectives

1. Evaluate landowner knowledge, attitudes, and willingness to pay (WTP) for prescribed burning programs in the Mid-Atlantic region.
2. Understand spatial variation in landowner perspectives of prescribed burning across the region using spatial analysis techniques.

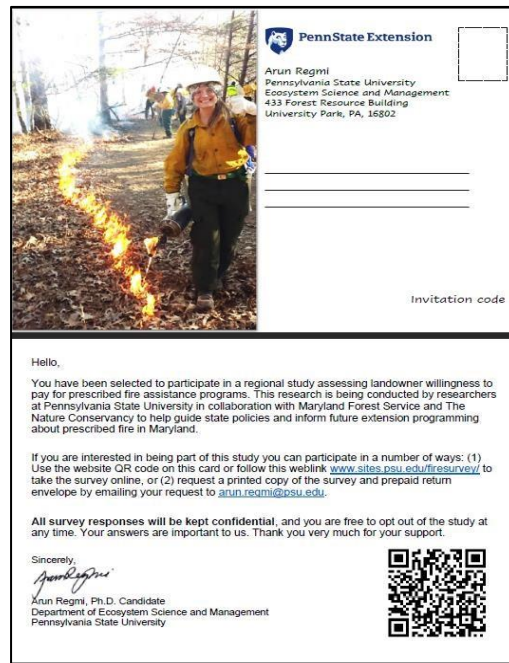


Study Area Location in the United States Map includes four Mid-Atlantic states: New York, Pennsylvania, Maryland, and Virginia

Most landowners reported that they manage forests mainly to achieve cultural benefits such as recreation, aesthetics, and a sense of place rather than for timber production for income. Landowners are more concerned about the overall health of forest ecosystems rather than focusing on specific management objectives.

About 64% of respondents were willing to enroll in at least one prescribed fire program throughout the region with Virginia leading the way followed by Pennsylvania, Maryland, and New York. About 48% were more certain (≥ 6 out of 10) about willingness to pay for prescribed burning.

Most respondents who rejected prescribed fire did so because of liability concerns of escaped fire. Other reasons for rejection were air pollution, limited resources (e.g., burn boss), topography, and limited information.



Sample of a push to web invitation postcard, and the survey sign-up form for the self-opt in method

LANDOWNER INPUT NEEDED!

If you are a private forest landowner who owns at least 10 acres of forestlands and would like to support this study by taking the survey. Please fill out the form below and we will send you the survey shortly.

Name *
 First Last

Which state are you from? *
 MD
 NY
 VA

How would you like to take the survey? *
 Online
 Mail
 Both

Leave a message (if you have any?)

Recommendations for Policy

- Pennsylvania is poised to start adopting prescribed fire due to the strong motivations of forest landowners. Education is very much needed to help promote safe use of fire and to help forest owners figure out how prescribed fire can help them achieve their desired management goals. Adaptive management techniques, in particular, may be important to use since ecological outcomes may be difficult to predict. Technical and financial assistance will also be critical for helping landowners to hire professionals to get fire on the ground.
- Landowners in Virginia were more knowledgeable and experienced in using prescribed fire, suggesting that many may be willing to take their management activities to the next level (beyond wildfire hazard reduction) and work with state agencies to achieve landscape level restoration goals. Education programs could support this effort by teaching landowners about prescribed fire as a restoration tool and where restoration activities by the state are currently being conducted.
- Landowners in New York do not appear ready to use prescribed fire. While motivations may vary within the state, there is a strong correlation between low knowledge and high-risk perceptions. Education programs may consider introducing prescribed fire along with other land management tools as a way of increasing knowledge.
- One important constraint to burning on private lands in this region may be a lack of qualified professionals. Burn windows tend to be shorter in northern regions, which means that demand for burning is not year-round. Training more natural resource professionals to conduct burning may be critical for meeting a high volume of demand in a short window of time.

Future Research

To our knowledge, this is the first study evaluating landowners demand for prescribed burning on private lands in the Mid-Atlantic region, and our findings provide a basis for future research. Future research should continue to study what landowners and the public consider to be key factors in prescribed fire implementation such as liability protection and technical resources. Future research should also explore which kinds of education and incentive programs certain categories of landowners may need.



Consortium of
Appalachian Fire Managers & Scientists

