

species in Rocky Mountain National Park benefit from habitual, low-intensity burns (“Fire Ecology”). Fires clear accumulated refuse from the forest floor, reduce competition among remaining vegetation, clear parasitic organisms from burn sites, and reintroduce nutrients into the

effectiveness. Smoke and ash impact the health of both in-state and out-of-state populations, increasing doctor visits and hospital admissions. The demand-side costs of wildfire smoke inhalation are quantified by Richardson et. al. (2013), who find that the individual willingness-to-pay for one less day of adverse symptoms is \$87 or \$95 in California, depending on the model used.

Financial losses appear primarily in redevelopment costs and economic slowdown. State and federal funding, partially provided by taxpayers, may be made available for redeveloping affected regions. Likewise, this incurs administrative and accounting costs as documentation is settled (Summerfelt 2016). Local economies, including those not directly in WUIs, suffer as residents leave the area, businesses temporarily close, and tourism dwindles (“Fast Facts”, Janofsky 2002, Wollan 2013, Almeida et. al. 2017).

Regional economic slowdown may seem like a natural market process, thus precluding government meddling, but here it constitutes a negative externality. This is because livelihoods are damaged by private decision makers in WUIs, who, considering only their own personal costs, do not make the socially optimal decision. Because residents are unable to affect these private decisions directly, the government must implement policy to mitigate these costs on residents’ behalf.

Infrastructure, including roads and water systems, is equally affected. The damage to these systems depends on the intensity of the fire, but in certain circumstances they can be completely destroyed (McEvoy 2012). Productivity decreases for everyone if agricultural lands, highways and train rails are made unusable. Additionally, even if these systems are repaired, lasting environmental damage may put them at more consistent risk. For example, mountainous

correction, he suggests, is a federal National Wildfire Insurance Program that employs a “homeowner mandate”, shifting the costs of wildfire management to those who directly benefit from it: residents of the WUI.

The implementation of a tax raises the overall cost of residing in a WUI, transferring some of the unaccounted societal costs to residents voluntarily living in these areas. A penalty for non-compliance to mitigation standards would also provide a sense of risk that may be lacking regarding wildfires. In other words, residents of WUIs may underestimate their wildfire risk, but a more tangible risk of monetary penalty will force more individuals into compliance.

R e c o m m e n d a t i o n s

I suggest the General Assembly reassess the subsidies provided in HB19-1006. Rather than appropriating more money for mitigation efforts, the state should obtain revenue from those whose actions contribute to risk. A system of taxation and penalties both confers the costs of wildfires onto WUI residents, rather than subsidizing their inherent risk, and helps correct sub-optimal risk assessment.

Yet, this alone may not be enough to optimally curb the destruction that wildfires bring inçØ

