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Abstract

Contribution of Risk Science and Scenario Planning to Build the 2022 US Wildfire Crisis Strategy †

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Abstract: In 2022 the US Forest Service launched an ambitious 10-year strategy to address the escalating wildfire danger in the U.S. "Confronting the Wildfire Crisis: A Strategy for Protecting Communities and Improving Resilience in America's Forests" includes a 10-year plan to substantially increase the scale of forest health and risk reduction fuel treatments over the next decade. The plan expands and prioritizes treatments on 20 million acres on National Forest System lands, and 30 million acres of other federal, state, tribal, and private lands, targeting lands where wildfire ignitions will potentially impact communities. In this talk, we describe the core science components supporting the treatment plan, and its evolution through interactions between our research team and Forest Service leadership. We highlight key science advancements and contributions, including: (1) the development of a multiscale planning framework based on wildfire risk transmission to communities that recognizes the scale of wildfire risk in the western U.S.; (2) scenario planning models that optimized and scheduled treatments over the first 20 years of the plan and re-treatments for an additional 10 years; (3) methods to incorporate the future effect of wildfire during plan implementation, i.e. "planning risk"; (4) an online geospatial registry to track progress; and (5) use of extreme event assessments rather than average burn probability to communicate risk. We describe how these tools and methods could be used in other fire-prone regions to build and test national scale fuel management strategies to guide current and new policy initiatives in response to recent trends in wildfire losses.

Keywords: wildfire risk transmission; community protection; fuel management strategies; scenario planning