

Potential Benefits of Community-wide Wildfire Mitigation Efforts

Wildfire science has traditionally focused on defensible space and home hardening for individual properties. The Firewise mitigations recommended have proven to be effective, with most being relatively affordable to implement.

The potential benefits of community-wide mitigation efforts have also long been recognized, and the Firewise Task Force routinely conducts Defensible Space and Home Hardening Assessments of entire Sub-HOAs. But only recently have efforts been made to quantify the benefits of wildfire mitigations involving entire communities, like Oakmont Village.

Research reported in one study (“Externalities in the Wildland-Urban Interface: Private Decisions, Collective Action, and Results from Wildfire Simulation Models for California” available at <https://onlinelibrary.wiley.com/doi/full/10.1111/risa.14135>) evaluated community-wide mitigation effectiveness using data from the Tubbs Fire in Fountain Grove.



The research was intended to help insurance companies determine the optimal discounts for various Firewise mitigations. Part of that effort involved finding the point where the cost of additional mitigations equals the anticipated reduction in losses resulting from the decreased likelihood of damage during a wildfire. For a suburban setting like Oakmont, with an average spacing of 12-14 feet between homes, that point occurs when around 60 percent of homes become Firewise, with continued gradual protection against losses up to 90 percent.

In an article titled “Does herd immunity work for wildfire?” (<https://nathanbwittasek.substack.com/p/does-herd-immunity-work-for-wildfire>), Fire Protection Engineer Nate Wittasek explains why community-wide efforts do indeed work because “... enough homes being hard to ignite interrupts structure-to-structure spread. A home that ignites in an ember storm isn’t just a victim. It becomes a producer: radiant heat, flames, and embers that test every weak seam of the next house downwind.”

An article in the Oakmont News on “Why Homes Burn in a Wildfire” (<https://oakmontvillage.com/article/firewise-why-homes-burn-in-a-wildfire/>) cites research that found a related advantage: “When fewer homes ignite from embers or direct flame contact, less structure-to-structure spread results, and the fire service is freed up to focus on those structures that are most threatened.”

To learn more about the actions you and your neighbors can take to minimize wildfire risk for the Oakmont community, please visit <https://oakmontvillage.com/firewise-actions/>.