



Research Brief for Resource Managers

Release:

December 2014

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Goals & obstacles of WUI mitigation programs in the US

Reams, M.A., T.K. Haines, C.R. Renner, M.W. Wascom, and H. Kingre. 2005. Goals, obstacles and effective strategies of wildfire mitigation programs in the Wildland-Urban Interface. *Forest Policy and Economics*. 7: 818 - 826

<http://www.srs.fs.usda.gov/pubs/23848>

The authors surveyed administrators of regulatory and voluntary wildfire reduction programs in 25 US states to gain information on how they are organized, what they are trying to accomplish, what obstacles existed in their implementation, and how well they may be working.

The authors found that education and public outreach was a nearly universal component in WUI mitigation programs. These efforts included publications distributed through mailings, public events and community meetings, and on websites. Other efforts included recommended fire-resistant species for landscaping, radio and television public service announcements, and classroom resources for teachers. Some jurisdictions also developed their own K-12 classroom programs, which varied dependent on the age of the students.

State and local wildfire risk assessments were also a part of the vast majority of WUI mitigation programs. Many were based upon vegetation, home construction materials, road design and access, water availability, signage and other factors.

Management Implications

- The most effective WUI mitigation programs employ hands-on, practical assistance to residents.
- Regulations are an effective tool, but should be part of a multi-faceted program to reduce hazardous fuels on private property.
- The most serious obstacles to success of mitigation programs are resource limitations and negative attitudes on the part of residents.

Direct assistance to homeowners was also commonly cited as a part of mitigation efforts. Those jurisdictions offering homeowner assistance usually provided a combination of services, such as home inspections, free prescriptions, and cost-share or free clearing and chipping or disposal of debris.

Less than half of the mitigation programs included a regulatory component. Most regulatory programs focused on mandatory defensible space standards and/or wildfire hazard review processes for new developments. Of those that did employ regulations, they were but one component of broader, comprehensive programs. The median number of regulations per jurisdiction surveyed was 1.

Managers most commonly responded that the most serious obstacles to the success of their

mitigation programs were resource limitations and negative attitudes on the part of residents (Table 1). Specifically, the perceived obstacles scoring the highest ratings were budget limitations, public apathy, shortages of technical staff, and resistance by property owners to removal of dangerous fuel buildup and ongoing vegetation management.

The vast majority of managers reported that they were involved in collaborative planning to some extent, primarily with the expectation that the process would result in “more effective plans.”

80% of the respondents reported that they were attempting some type of systematic review of progress toward stated program goals. The respondents were reviewing progress for a variety of reasons including budgetary decisions and compliance with guidelines for grants and other types of financial support received.

When asked to “Please describe your most

Table 1. Perceived obstacles to WUI mitigation program effectiveness.

| | <i>N</i> | Range* | Mean | Standard deviation |
|--|----------|--------|--------|--------------------|
| Inadequate program budget | 56 | 0–5 | 3.3214 | 1.44105 |
| Lack of qualified staff | 56 | 0–5 | 2.4643 | 1.68377 |
| Need more technical help | 56 | 0–5 | 1.8393 | 1.46196 |
| Public apathy | 56 | 0–5 | 3.0536 | 1.45752 |
| Residents resist vegetation management | 56 | 0–5 | 2.7500 | 1.25408 |
| Unclear program goals | 56 | 0–5 | 1.5357 | 1.26440 |
| Scientific uncertainty of risk | 56 | 0–4 | 1.5714 | 1.23373 |
| Inadequate community risk assessments | 56 | 0–5 | 1.8036 | 1.49447 |
| Not enough help for property owners | 56 | 0–5 | 1.7679 | 1.43958 |
| Low enforcement of regulations | 56 | 0–5 | 1.7679 | 1.62918 |
| Little cooperation among stakeholders | 56 | 0–5 | 1.7321 | 1.47082 |
| Inadequate public input into fire policy | 56 | 0–5 | 1.3929 | 1.43563 |
| Other obstacles to program success | 56 | 0–5 | .8393 | 1.77638 |
| Valid <i>N</i> (list wise) | 56 | | | |

*Responses ranged from “0” (not an obstacle) to “5” (a very significant obstacle).

effective program activity for creating defensible space,” 75% of program managers chose more than one element of their overall mitigation program, even though asked to provide only a single element. Most indicate confidence in hands-on, practical assistance to private property owners (Table 2). Many also believe that regulations are an effective tool, but should be part of a multi-faceted program to reduce hazardous fuels on private property.

Suggestions for further reading

Winter, G., Fried, J.S. 2000. Homeowner perspectives on fire hazard, responsibility, and management strategies at the wildland urban interface. *Society and Natural Resources* 13: 33-49

Winter, G., Vogtt, C.A., McCaffery, S. 2004. Examining social trust in fuels management strategies. *Journal of Forestry* 102 (6): 8-15

Table 2. WUI mitigation program elements listed as “most effective”.

| Program element | All programs no. of responses (<i>n</i> =46) |
|-------------------------------|---|
| Cost-share or free treatment | 21 |
| Disposal or chipping of slash | 17 |
| Public education | 14 |
| Risk assessment and mapping | 13 |
| Prescriptions | 10 |
| Regulations | 10 |