Quick-Guide #5: The Role of the WUI in CWPP Planning and Implementation

CWPPs can provide the opportunity for local communities to influence fire management actions on adjacent public land by identifying the boundaries of their Wildland-Urban Interface (WUI), the area where urban lands meet or intermix with wildlands. The HFRA specifies that federal land management agencies must give priority to local fuels reduction projects identified in the WUI. Although we might anticipate that communities would readily take the step of defining their WUI boundary to take advantage of this policy incentive, this was not always the case, particularly in the East where land ownership patterns and population density make identifying the WUI more difficult than in the West.

Flexible policy leads to diverse CWPPs and WUI identification

Communities and states engaged in CWPPs are interpreting the HFRA with tremendous variation. CWPPs ranged from wildfire hazard assessments and fire plans completed pre-HFRA, to Firewise-linked plans, to stand-alone plans. Several CWPPs served dual planning purposes as Firewise Communities/USA plans, and/or FEMA hazard mitigation plans. Not surprisingly, the diversity in CWPPs led to a wide interpretation of the WUI. It appears that planning scale, the use of a planning template, and the participants in a CWPP process all influenced if and how the WUI concept was used in the CWPP. While some communities employed highly technical GIS models or risk assessments to define the WUI, others utilized local knowledge of participants, or simply depended on "common sense." In Oregon, for example, CWPP participants extended the WUI to watershed boundaries and moved in from there, using road systems or ridges as boundary lines. Many communities, such as Barnes and Drummond, Wisconsin, built on an existing definition that establishes the WUI as any place with one house per 40 acres. Other communities employed a much more vague designation of the WUI. In a review of 29 CWPPs from the Eastern U.S.,* the wildland-urban interface was used or addressed in just over half of the reviewed plans. Of those 15 communities that did identify the wildland-urban interface, there was a gradient of precision in how the WUI was defined and located. While some plans used the WUI concept but did not identify specific areas, others singled out specific neighborhoods, road intersections, or even used GIS to spatially define WUI areas.

Participant influence

Agency partners, local government and third parties can all influence use of the WUI concept in Community Wildfire Protection Planning. Government agencies at both the federal and state level play a vital role in CWPP development, especially in terms of the technical resources they bring to the table. Plans with public partners were more likely to define the WUI, especially in the eastern U.S., where public land is less prevalent. In western states, CWPPs more commonly utilized the WUI concept. In addition, state agencies often made strategic decisions about the CWPP scale and template, which ultimately influenced the use of

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the WUI. In terms of local involvement, fire departments provided invaluable local knowledge when it came to defining the WUI. Local government officials also contributed knowledge about the landscape, and in some cases provided political influence to accomplish things on a local level. For some CWPP groups, the presence of a third party planning group or contractor increased technical and GIS influence regarding WUI development, and brought in resources and expertise.

Influence of Scale and Templates

Use of the WUI in CWPPs appears to be influenced by both the scale of planning and the use of planning templates. The HFRA identifies three parties required for collaboration in a CWPP (in conjunction with federal agencies and other partners): the local fire department, relevant state forestry agency, and a local government official. The vague definition of a "local government official" has led to a wide range of planning scales. As a result, we found CWPPs at several planning scales: county-wide, multiple townships, cities / townships, and even at the subdivision level. Depending on the scale, a "local government official" could range from a County Commissioner, to a town Mayor or Board member, to a Homeowner's Association member, and in one unincorporated community even the local pastor. Larger-scale planning efforts, such as the Lake County, Minnesota CWPP, tended to use the WUI concept, while subdivision-level plans were less likely to designate a WUI. This may be because the entire community itself was a WUI; or in one community, the Homeowners' Board did not want to designate WUI outside the community boundaries because of liability issues. It is not uncommon to see a hierarchical designation of the WUI in areas that have both a county-level plan, and smaller community- level plans within the county. The larger county plan includes a vague notion of the WUI, and the smaller communities then take on the task of identifying more specific areas. In addition to the impact of scale, some of the case study communities were using planning templates. A further review of CWPPs in the eastern U.S. found several templates in use for developing CWPPs. These templates determined if and how the WUI was used for planning.

*Note about these findings

In addition to 13 eastern case studies from the Joint Fire Science study, findings related to the WUI were obtained though graduate research that included an additional document review of CWPPs in the 23 states in U.S. Forest Service Regions 8 and 9 (Eastern U.S.). A total of 29 CWPPs were collected from 10 different states and reviewed for 1) scale of the plan, 2) participants in the plan, 3) use of the WUI concept, and 4) identification of WUI or interface areas.