

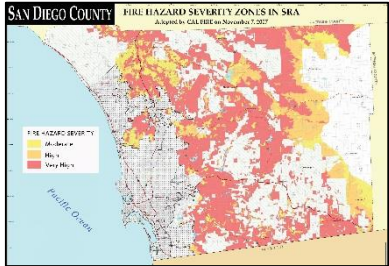





Land Use Planning to Reduce Wildfire Risk: Lessons from Five Western Cities

Land Use Planning Strategies to Reduce Wildfire Risk


Community Initiatives


<p>Voluntary Property Assessment</p>	<p>Complementary to regulations, communities can initiate voluntary assessment programs that provide valuable mitigation information to property owners.</p>  <p>WILDFIRE PARTNERS</p> <p><i>Wildfire Partners is a unique public-private collaboration.</i></p>	<ul style="list-style-type: none"> • Boulder County, Colorado's Wildfire Partners program helps property owners prepare for future wildfires by conducting property assessments with a trained mitigation specialist, identifying wildfire vulnerabilities, and other forms of assistance. Property owners who complete their required mitigation earn a certificate, which is accepted by local insurance companies to maintain or receive coverage. <p><i>To read more, see page 23.</i></p>
<p>Partnerships and Coalitions</p>	<p>Collaboration between diverse stakeholders can facilitate proactive and transboundary risk planning.</p>  <p><i>The Greater Flagstaff Forest Partnership public workshop</i></p>	<ul style="list-style-type: none"> • In Austin, Texas, the fire department collaborates with other city staff to conduct prescribed burns within the city limits, reducing hazardous vegetation. • The Greater Flagstaff Forest Partnership was formed in Flagstaff, Arizona, as a collaborative effort to enhance community awareness on issues related to forest health and wildfire impacts. <p><i>To read more, see page 28.</i></p>
	 <p><i>CAL FIRE launched "Cal-Adapt," an online resource illustrating areas of high wildfire severity throughout California, such as the map above for San Diego County.</i></p>	<ul style="list-style-type: none"> • In California, CAL FIRE works closely with the City of San Diego to pursue specific goals, policies, and land use planning practices to reduce wildfire risk. Examples include defensible space standards, open space management, post-fire safety and maintenance, among other wildfire-related topics. <p><i>To read more, see page 39.</i></p>

Land Use Regulations and Building Codes (Cont.)

<p>Overlay Zoning</p>	<p>Overlay zoning provides a set of standards that apply to properties within a defined area, often superseding the underlying base standards of a given zoning district.</p>  <p><i>Santa Fe's escarpment area is protected by an overlay district.</i></p>	<ul style="list-style-type: none"> To avoid potential conflicts between resource protection (e.g. tree preservation) and hazardous fire-prone vegetation, the City of Flagstaff, Arizona prioritized within its regulatory and planning documents that Flagstaff's Wildland-Urban Interface (WUI) code applies <i>before</i> the application of resource protection standards within their Resource Protection Overlay Zone. This ensures that all future developments appropriately reduce wildfire risk prior to the development application process. <i>To read more, see page 32.</i> The escarpment area in Santa Fe, New Mexico is covered by an overlay district aimed at protecting viewsheds and the foothills. Development within the overlay district is subject to heightened development regulations and landscape wildfire mitigation compliance measures. <i>To read more, see page 45.</i>
<p>Site Plan Review Procedures</p>	<p>Wildfire mitigation can be incorporated into site plan review procedures to ensure safe development within the WUI.</p>  <p><i>To mitigate wildfire risk within the WUI, Boulder, CO has integrated wildfire protection into the development review process.</i></p>	<ul style="list-style-type: none"> In Boulder, Colorado, a site plan can be requested with each submitted development proposal prior to a building permit being issued—allowing for added wildfire mitigation measures, such as defensible space standards, adequate water supply, and multiple entry/egress options. <i>To read more, see page 22.</i>
<p>Site Plan Review Procedures (Cont.)</p>	 <p><i>The 2011 Pinnacle Fire in Austin, TX destroyed 10 homes and threatened dozens of more structures situated within the city's WUI.</i></p>	<ul style="list-style-type: none"> The City of Austin, Texas, works closely with Travis County in a joint design review process for proposed developments, ensuring that the city inherits a better planned WUI for wildfire mitigation. <i>To read more, see page 13.</i>

Land Use Regulations and Building Codes (Cont.)		
<p>Development Standards</p>	<p>Development standards are the section of land use regulations that generally determine the quality of development. For wildfire, these can include specific requirements for adequate water supply, defensible space, resource protection, and ongoing maintenance.</p>	<ul style="list-style-type: none"> • Austin, Texas is undergoing an initiative called CodeNEXT, which promotes compact development by directing new growth to existing areas rather than on “greenfield” sites. <i>To read more, see page 15.</i> • Development requirements for fire protection are part of the Boulder County, Colorado Land Use Code which requires appropriate water systems and other risk measures for homes rated high for wildfire exposure. <i>To read more, see page 22.</i>
<p>Subdivision Regulations</p>	<p>Subdivision regulations determine how lots are created and divided, as well as site layout standards for new developments. Related to wildfire, subdivision review can include components such as adequate access, water supply, and other wildfire mitigation features.</p>	<ul style="list-style-type: none"> • The City of San Diego, California enforces a comprehensive brush management policy for any property containing a habitable structure <i>and</i> native vegetation. Homes that do not comply with the multiple-zone management requirements are billed the amount it costs to hire a private contractor to complete the brush thinning. <i>To read more, see page 38.</i>
<p>Wildland-Urban Interface (WUI) Code</p>	<p>WUI codes provide a set of wildfire mitigation development standards, including structure density and location, building materials, and other fire protection requirements.</p>  <p><i>Flagstaff, Arizona’s WUI code requires removal of snags and other potential hazard trees.</i></p>	<ul style="list-style-type: none"> • Well in advance of adopting a WUI code, the City of Flagstaff, Arizona required hazard mitigation on all properties prior to development, such as requiring non-combustible roof coverings. The early regulations laid the groundwork for the more stringent wildfire risk reduction measures outlined in the official WUI code. <i>To read more, see page 31.</i>
Planning Policies		
<p>Comprehensive Plan</p>	<p>Wildfire mitigation can be integrated into comprehensive plans, which are overarching policy documents that provide guidance for future land use decisions at the local level.</p>	<ul style="list-style-type: none"> • In updating its Comprehensive Plan, Boulder, Colorado addressed several different policies for wildfire risk reduction and dedicated an entire chapter to the hazards posed by wildfire. <i>To read more, see page 21.</i>

Planning Policies (Cont.)		
<p>Community Wildfire Protection Plan (CWPP)</p>	<p>CWPP's are local plans designed to specifically address a community's unique conditions, values, and priorities related to wildfire risk reduction and resilience. CWPPs vary in scope, scale, and detail, but there are minimum requirements for their development and adoption.</p>	<ul style="list-style-type: none"> • The City of Austin, Texas partnered with Travis County to form the Austin Travis County Wildfire Coalition. Their first major undertaking was the development of a joint city-county CWPP. <i>To read more, see page 13.</i> • The City of Boulder, Colorado extensively collaborated with public and private stakeholders in the development of its CWPP, which includes 45 different maps, video links, and resources for property owners regarding wildfire risk reduction strategies. <i>To read more, see page 21.</i>
<p>Hazard Mitigation Plan</p>	<p>Hazard mitigation plans are local plans that are often multijurisdictional and identify risk, vulnerability, and mitigation actions for various natural hazards, including wildfire.</p>	<ul style="list-style-type: none"> • In its Hazard Mitigation Plan, Boulder, Colorado identified wildfire-related risks and proposed actions to reduce these threats, such as creating fuel breaks along roadways, installing information kiosks and wildfire danger signage, and ensuring sufficient water supply to neighborhood hydrants. <i>To read more, see page 21.</i>
<p>Planning for Climate Change</p>	<p>In managing for climate change impacts, including prolonged droughts, variable precipitation patterns, and other environmental stresses, community officials can identify key risks, implement mitigation measures, and develop approaches for long-term adaptation to climate change.</p>  <p><i>San Diego, California's WUI</i></p>	<ul style="list-style-type: none"> • In 2014, Austin, Texas adopted a Community Climate Plan, providing guidance for the city to achieve net-zero communitywide greenhouse gas emissions by 2050. <i>To read more, see page 16.</i> • In recognizing the inevitable challenges climate change poses, Boulder, Colorado developed a Climate Change Preparedness Plan and addressed the need to protect crucial water supply infrastructure. <i>To read more, see page 24.</i> • In San Diego, California, the State of California maintains Cal-Adapt, a website providing updated climate data to help users understand local climate change impacts. <i>To read more, see page 39.</i>

Planning Policies (Cont.)		
<p>Watershed Management</p>	<p>Watershed Management plans and policies help communities protect their water supplies from catastrophic wildfire through forest management and agency partnerships.</p>  <p><i>Santa Fe, NM funds a public-private collaborative effort to reduce fuel loading in nearby watersheds.</i></p>	<ul style="list-style-type: none"> • Following several significant fires near Flagstaff, Arizona, city residents approved a \$10 million bond in 2012 to implement wildfire risk reduction measures and mitigate post-fire flooding impacts in nearby watersheds. <i>To read more, see page 30.</i> • Following the Cerro Grande Fire in 2002, Santa Fe, New Mexico established a forest treatment program in the Santa Fe National Forest to reduce the fuel load in portions of the watershed, requiring a concerted private-public partnership. Since the program began, the U.S. Forest Service has treated more than 5,500 acres within the watershed. <i>To read more, see page 46.</i>
<p>Preservation of Open Space</p>	<p>Preserving open space between developed lands and the WUI provides a buffer between the built environment and encroaching wildfires. Parks, public lands, agricultural fields, and other undeveloped lands are considered open space.</p>	<ul style="list-style-type: none"> • Austin, Texas has designated more than 30% of city land as conversation areas, limiting the number of future structures at risk to wildfires. <i>To read more, see page 15.</i> • In Boulder, Colorado, the county’s Open Space and Recreation Department manages more than 100,000 acres of open space, which prevents further development within the WUI and lands prone to wildfire. <i>To read more, see page 21.</i>

The full report, “Land Use Planning Lessons to Reduce Wildfire Risk” is available at: <http://headwaterseconomics.org/wildfire/solutions/lessons-five-cities>