

USU Forestry Extension Impacts

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DIY Biochar Kilns Remove Hazardous Fuels and Improve Forest Health in Utah | Megan Dettenmaier, Darren McAvoy, Lauren Dupey, Michael Kuhns



Kelpie

Wilson demonstrating how to make biochar in a simple kiln.

SITUATION: In the United States, the 2017 fire season was the most expensive in history with costs exceeding \$2 billion. Because of fire suppression activities and land use changes, many trees, such as pinyon-juniper, have expanded their range in Utah and as a result, increased fire risk and decreased forest health. An increasingly large number of people live at the wildland urban interface, which highlights the wildfire risks posed to private and public infrastructure. If no action is taken to reduce the fuel loads currently accumulating in Utah forests, the costs and risks associated with fighting wildfires will increase, pest invasions may intensify because pests easily travel through dense forests, and as a result, general forest health will decline.

[READ THE FULL IMPACT STATEMENT](#)

Utah | Megan Dettenmaier, Michael Kuhns, & Darren McAvoy



This sidewalk in Ogden, Utah was replaced as part of the project.

SITUATION: Mature urban trees often have large root systems. Their roots can break and uplift sidewalks, creating hazards for pedestrians and costing cities money. Removal and replacement of one tree and the associated costs for fixing the sidewalk can range from \$1,000 to \$3,000. However, when urban trees are removed, their benefits are also removed. Trees absorb carbon dioxide and store it long term. Their roots remove excess nutrients and contaminants from soil and water, and they provide shade and reduce energy consumption for cooling during the hot summer.

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Trees and Sidewalks: Creative solutions to keep the urban tree canopy in place and fix sidewalks in