

# WILDFIRE MITIGATION TREATMENTS IN THE WILDLAND–URBAN INTERFACE: THE SURPRISING CASE OF FLORIDA

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## ABSTRACT

The 1998 wildfire season transformed Florida into an unprecedented staging ground for fire suppression activities in the wildland–urban interface (WUI). With so much attention focused on private properties and homeowners, the governor of Florida crafted legislation to initiate a program of statewide fuels mitigation teams that continues to this day. Although many thousands of WUI acres have been treated using prescribed fire, roller chopping, mowing, and various combinations thereof, explicit locations for the majority of mitigation projects are lacking. With no records of the location and spatial patterning of these treatments, evaluation of their effectiveness and appropriateness is unachievable. This project seeks to determine the most efficient method for tracking and analyzing the spatial patterning of Florida’s ongoing fuels reduction treatments in the WUI. To meet the project’s objectives, creative techniques and collaboration were necessary. We utilized State fuels mitigation team leaders’ personal knowledge and Google Earth as a visualization tool to identify locations. Next, ArcGIS was employed to create a set of base maps with drawn polylines/polygons to more accurately quantify the extent of completed work. The finished products include shapefiles demonstrating the scope of fuels mitigation in relation to surrounding vegetation types, private structures, and areas of special concern (e.g., hospitals, schools). These maps were then overlaid with boundaries of recent wildfire occurrences, providing identifiable scenarios in which mitigation efforts have reduced wildfire intensity and increased protection of homes. As the largest implementing agency for WUI fuels treatments, the Florida Division of Forestry is seeking a methodology for updating records of recent years with spatial data. This initial study demonstrates suitable techniques for accomplishing this task with minimal time and costs accrued.

*Keywords:* fire suppression, GIS, roller chopping, wildfire prevention, wildland–urban interface.

*Citation:* Graham, M.W., L.N. Kobziar, and F. Escobedo. 2010. Wildfire mitigation treatments in the wildland–urban interface: the surprising case of Florida [abstract]. Page 99 in K.M. Robertson, K.E.M. Galley, and R.E. Masters (eds.). Proceedings of the 24th Tall Timbers Fire Ecology Conference: The Future of Prescribed Fire: Public Awareness, Health, and Safety. Tall Timbers Research Station, Tallahassee, Florida, USA.