

Executive Summary

Geospatial Technology is prevalent in a wide range of applications that utilize spatial data to plan, respond, manage and operate both short term and long term tasks. Applying geospatial technology to address wildland and wildland urban interface (WUI) fire hazards has demonstrated its value. The planning, mitigation, incident response, recovery and communication to address the wildland and WUI fire hazards has become more dependent on understanding and manipulating geospatial information.

While the current availability of geospatial related data and systems is abundant and richly diverse, it is too often unavailable to the practitioners who most need it. Traditional causes for this include lack of appropriate level and relevance of guidance for practitioners, training for analysts, and the confusion caused by the abundance of overlapping options; funding to build capacity to use these resources, and standards to guide efficient implementation. Efforts are underway to address some of these issues, such as new emerging standard documents to guide efficient implementation, e.g., NFPA 950, *Standard for Data Development and Exchange for the Fire Service*, and NFPA 951, *Guide to Building and Utilizing Digital Information*. Further, the understanding of the on-going future direction of current geospatial technological approaches for managing wildland and WUI fire is lacking clarity and deserving further attention.

The goal of this project is to compile a collection of the latest geospatial technological approaches to clarify the methodology, application and utility of various geospatial techniques and data for wildland and WUI fire events. This report is intended to improve understanding and enhance decision-making for fire preparedness, mitigation, and rehabilitation in the wildland and WUI. The deliverables of this project collectively review the available baseline information, and identify the fundamental principles and key details involving current applications of geospatial technology to address wildland and WUI fire hazards. They provide a summary of core information regarding the features and specific use of different geospatial tools, with a primary focus on Graphic Information Systems (GIS), Remote Sensing (RS), and Global Positioning System (GPS) technologies.