

MARIN COUNTY EVACUATION RISK ASSESSMENT

ROADWAY

FACTORS

PURPOSE

Why?

The Evacuation Ingress/Egress Planning Tool Project Study was undertaken to understand and address the risks associated with evacuation routes in Marin County. The goal is to construct an inventory of risk factors and dynamic models of wildland fire spread, communications processes, and transportation networks to simulate wildfire evacuation scenarios in Marin County. Risk ratings are assigned to address how road, fire, and communication characteristics affect evacuation. This fact sheet addresses roadway risk ratings.

METHODOLOGY

What was the process?

The Study developed roadway difficulty risk scores by differentiating between fixed risks, which are difficult to alter, and variable risks, with can more easily be modified. Evacuation conditions were also modeled for different wildfire scenarios to inform the roadway risk factors.

Roadway risks affect egress or ingress during an evacuation and access to key infrastructure. Roadways with high elevation, slope, and complexity (winding roads), present a higher difficulty during an evacuation. These factors, along with canopy clearance and road width, can also hinder fire truck access. Variable risks include road condition and high-collision roadways.

NEAR-TERM BENEFITS

What will be done to help now?

MWPA and partner agencies are using the roadway risk ratings generated by the Study to generate near-term community benefits as follows.

 Identify improvements to evacuation routes such as directional road lane widening, shoulder evacuation lanes, fire road enhancements, and evacuation wayfinding.

 Prioritize residential streets for implementation of parking management, roadside and canopy fuel reduction measures, and other strategies.

 Leverage MWPA funds: Submit grant applications for infrastructure improvements.

 Identify priority locations for new traffic signals.

LONG-TERM BENEFITS

What are the next steps?

MWPA and partner agencies plan to implement supply, demand, and communication strategies to make evacuations safer and more efficient. This will include capital projects, agency programs, and planning efforts. Many of the supply and communication strategies will require grant funding that MWPA and partner agencies are actively pursuing to implement. Co-benefits of strategies to improve evacuation performance can include improved overall safety and better active transportation facilities where projects such as wider shoulders and traffic signals are provided.