



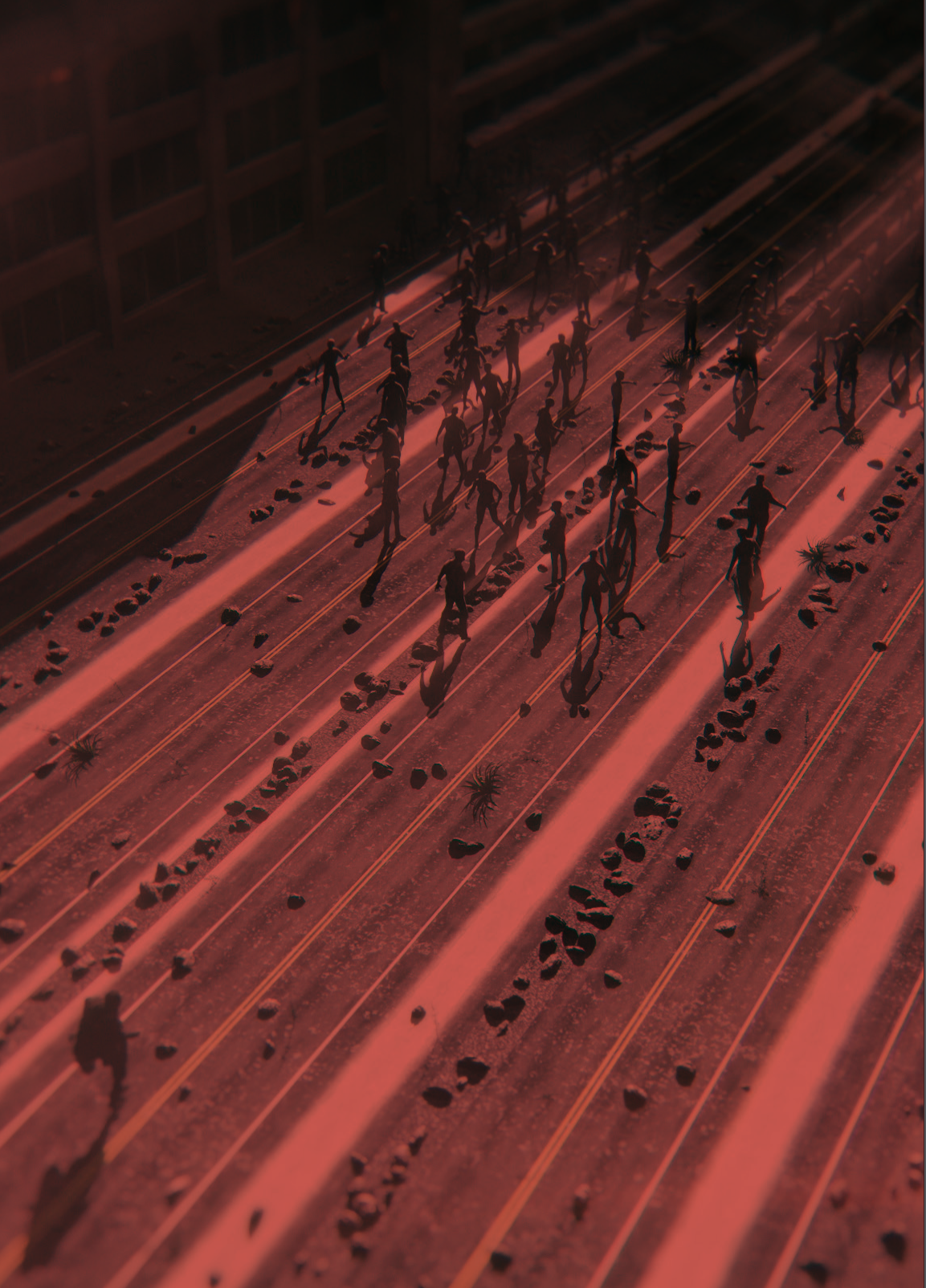
Guide to Expanding Mitigation

MAKING THE CONNECTION TO A ZOMBIE APOCALYPSE



FEMA

RiskMAP
Increasing Resilience Together



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The world continues to descend into chaos. Do you know what hazard your community will face next? A threat ever looming on the horizon is a zombie apocalypse. Much has been written about preparing for and even fighting off zombie hordes. Building on existing knowledge about the risks and vulnerabilities related to the zombie infestation hazard, this guide seeks to help you reduce those risks in your community. Understanding zombie risk reduction strategies and how to incorporate the undead into your community's hazard mitigation program is key. Proper planning through a FEMA-approved Hazard Mitigation Plan leads to appropriate mitigation actions that can reduce the risk your community faces from the legions of the undead.

This *Guide to Expanding Mitigation* shows how community officials can reduce the risk to people and property from zombie attacks in the event of a zombie apocalypse. It focuses on the planning process and project development. This guide can help community officials start a conversation about mitigation investments that will make communities more resilient to a zombie onslaught.

While zombies are not real, every community faces very real risks from natural hazards. The *Guides to Expanding Mitigation* series describe how investments that reduce risk can benefit the whole community, as well as sectors like agriculture, public health, and transportation. This guide about the zombie apocalypse is a work of fiction that was designed to call attention to the importance of engagement in mitigation planning and projects.



This *Guide to Expanding Mitigation* is part of a series highlighting innovative and emerging partnerships for mitigation.



WHAT ARE ZOMBIES?

Zombies are undead, reanimated corporeal beings created through various means. The most common causes of reanimation include deadly pathogens, scientific accidents, radiation, vectors, parasites, and magic. Zombies can also appear through unknown or mysterious causes. The term “Zombie” comes from Haitian voodoo folklore, which was introduced into Western culture in the late 1920s. As we have learned, zombies have an unstoppable, ravaging hunger for living flesh. They will consume any type of animal, but their favorite, of course, is homo sapiens. Nothing can stop the zombie from its desire for flesh. Even after consuming an entire family, a zombie will continue to look for more. Zombies can create other zombies as well, through biting the living. The current evidence suggests that only human beings can be infected and become zombies. In some instances, zombie pathogens can become airborne. In this form, they can reanimate a formerly living corpse as a zombie, even if the person died of other causes.

The President has authority to direct FEMA to provide assistance for a zombie apocalypse. However, although zombies can be created through many means, FEMA hazard mitigation programs can only be used to mitigate the potential impacts of natural hazards. This is defined by the Stafford Act. This means that only zombies created via viruses, pathogens, and vectors will be covered under FEMA’s Hazard Mitigation Assistance (HMA).

HOW TO KILL A ZOMBIE

Knowing how to kill a zombie will inform your understanding of how to mitigate zombie attacks on your community. The reanimation of zombies occurs through their fetid, rotting brains; as such, the brain of the zombie must be extinguished. The brain of the zombie can be killed again by blunt-force trauma, head penetration, or being burnt to a crisp.

PLANNING AND ENGAGEMENT

Proper planning is the key to mitigating your risk from a zombie attack. Although you may be familiar with FEMA's hazard mitigation planning process, which addresses such hazards as flooding, hurricanes, and wildfire, far too few plans address the ever-present zombie hazards.

Planning for a zombie apocalypse requires a whole community approach. FEMA encourages local officials to work with absolutely everyone in their community to help address these risks and develop potential solutions. A zombie apocalypse is an indicator that society as we know it has ended. Therefore, an "all hands on deck" approach is warranted to plan for this hazard. Everyone can and should play a role in the future survival of your community and the proliferation of the human race. Developing and implementing a zombie mitigation plan now will result in a more hopeful future for the hardy generation that will survive in a grey and gloomy landscape.

Community officials should empower their at-risk populations, whose hardships create resilience that makes them natural leaders during a zombie apocalypse. These future leaders and their collaborators can consult our *Guide to Expanding Mitigation: Making the Connection to Equity*. This will help them understand how to help those who might be challenged in facing the menacing zombie hordes, especially without the modern conveniences of social media and pumpkin spice lattes (PSL). In one example of an anticipated shift in society, PSL will take on new meaning: it will refer to a "Post-apocalyptic Survivor Leader," rather than a fall-themed coffee beverage.



THE DEPARTMENT OF DEFENSE DEFINES THE FOLLOWING TYPES OF ZOMBIES:

Pathogenic Zombies (PZ): PZs are zombie life forms created when an organism is infected by a virus, bacteria, or other form of contagion

Radiation Zombies (RZ): RZs are zombie life forms created when an organism is infected by an extreme dosage of electromagnetic and/or particle radiation

Evil Magic Zombies (EMZ): EMZs are zombie life forms created via some form of occult experimentation in what might otherwise be referred to as "evil magic"

Space Zombies (SZ): SZs are zombie life forms originating from space or created by a toxic contamination of the earth environment via some form of extra-terrestrial toxin or radiation



LAND USE & URBAN DESIGN

In anticipation of a new world challenged by the ever-present threat of zombies, we can work today to build communities that will help us survive. FEMA encourages local governments to adopt strong land use, urban design, and building code principles to ensure the maximum reduction of the risk of zombie attack. City centers across the country could be overrun quickly by zombies, and areas of suburban sprawl may not provide either security or manageable critical infrastructure. FEMA encourages low- to medium-sized population centers to focus on building strong communities with localized economies that can adapt organically and incrementally over time. Regardless of size, all communities will need to maximize land use behind an anti-zombie penetration wall. These protected areas must be self-sustaining and have a manageable infrastructure. Communities should plan for resource use that does not reduce the population's ability to survive and maintain basic needs.

Community officials should adopt a Dead Zone (DZ) to protect against the undead. FEMA's Model DZ Ordinance includes:

- The clustering of multi-family residential development proximate to transit infrastructure to maximize supply chains;
- Walkable, mixed-use commercial areas to allow access even during regular power outages;
- Protected agricultural land to provide ample food supply;
- Light industrial uses to produce and meet community needs;
- Maximum noise limits for heavy industrial operations and equipment to protect the community; and
- Open space for recreation and exercise for the health and happiness of a society threatened by menacing zombies.



Before designating a DZ, community officials should assess the risk for other natural hazards to ensure that the area will not be vulnerable to both zombie attack and an additional natural hazard. Communities facing risks from fires should, for example, plan accordingly as zombies are terrified of fire. Communities in Wildland-Urban Interface areas are encouraged to incorporate prescribed burns into their Community Wildfire Protection Plans. Prescribed burns are a form of forest management that will protect communities from large and unwieldy conflagration threats. This approach also results in a Zombie-Urban Interface that buffers the population from zombies and increases resiliency.

Islands vulnerable to flood risk are also considered to be some of the world's safest locations from zombie attacks. But beware! Ocean zombies can, on rare occasions, emerge onto beautiful sandy beaches hundreds of miles from the mainland. Islands adopting DZs should prevent shoreline development for an added measure of protection from both zombies and storm surge.



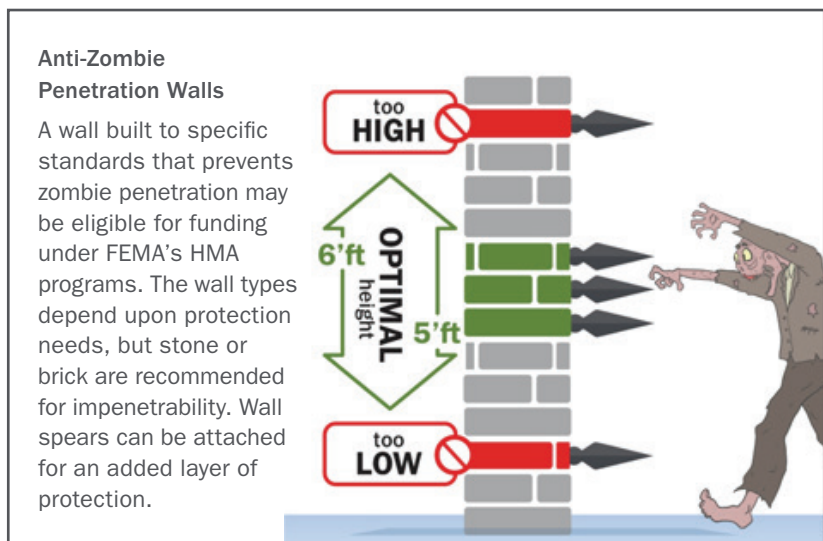
NOISE REDUCTION METHODS

Zombies have remarkable hearing, and noise from the living can attract unwanted hordes. While zombies have poor sight and their sense of smell is limited to a few hundred yards, they can hear some sounds several miles away. Large explosions, power generation facilities, heavy industrial operations, and equipment are sure to attract zombies. Hazard Mitigation Plans and actions should address the need for resilient and quiet power systems that meet community needs. For more information, see our *Guide to Expanding Mitigation: Making the Connection to Electric Power*.

Generators and chainsaws also produce a lot of noise and are notorious for attracting zombies. Neither individually- or community-owned generators or chainsaws are eligible expenses for a zombie apocalypse under the FEMA HMA program.

FORTIFICATION

Fortifications are the most critical infrastructure for community survival during a zombie apocalypse. The most basic and highly encouraged mitigation action is constructing an anti-zombie penetration wall around the perimeter of your community. However, FEMA considers a number of other mitigation measures eligible and advantageous for reducing the risks associated with a zombie attack. Communities should prioritize zombie apocalypse mitigation actions that have the co-benefits of reducing the risk from natural hazards.



PUBLIC ART

It is well known that zombies are preoccupied by the consumption of fresh, living flesh. However, a lesser-known fact is that their lack of a soul makes them averse to public art. Security footage analyzed by a consortium of art museums revealed no record of zombie visitors. FEMA encourages communities, therefore, to consult local artists on public art designs when developing fortification projects to both ward off the undead and celebrate the living. For collaboration ideas, see our *Guide to Expanding Mitigation: Making the Connection with Arts and Culture*.

MITIGATION ACTION	DESCRIPTION	ELIGIBLE EXPENSES	INELIGIBLE EXPENSES
ANTI-ZOMBIE PENETRATION WALL	Walls at least 15 feet high, built around an entire community, that include vents for the ingress and egress of floodwaters	<ul style="list-style-type: none"> • Material, labor, and other construction costs • Reinforced security gates 	<ul style="list-style-type: none"> • Wall maintenance and repairs after initial construction
WALL SPEARS	Spears attached to anti-zombie penetration walls for an extra layer of protection	<ul style="list-style-type: none"> • Purchase and installation 	<ul style="list-style-type: none"> • Sharpening and maintenance • Pathogen cleaning supplies
COMMUNITY MOAT	Dry moats created to capture and hold zombies until they can be destroyed	<ul style="list-style-type: none"> • Labor and construction • Production and installation of obstacles and piercing devices • Drawbridges (no more than two) 	<ul style="list-style-type: none"> • Wet moats • Bimonthly burn outs
WATCH TOWERS	Towers built along the walls, for observation and warning of impending zombie attacks	<ul style="list-style-type: none"> • Labor and construction 	<ul style="list-style-type: none"> • Equipping towers with weapons and protective gear
LAND USE, URBAN DESIGN, AND BUILDING CODE UPDATES	Updating and adopting a Model DZ Ordinance or other community design to reduce the impact of zombie attacks	<ul style="list-style-type: none"> • Labor to support code development, public engagement, and the adoption process 	<ul style="list-style-type: none"> • Codes that do not meet the minimum required standards for survivability
MICROGRIDS (RENEWABLE SOURCES)	Microgrids that generate power based on renewable energy sources	<ul style="list-style-type: none"> • Solar, wind, and hydro-electric power generation • Distribution equipment • Portable solar generators 	<ul style="list-style-type: none"> • Gasoline-generators • Fossil fuel-powered generators

OPERATIONS & MAINTENANCE

Mitigation actions should be long-term, sustainable solutions that increase community resiliency during a zombie apocalypse. However, even the most simple protective anti-zombie penetration walls can wear out over time if not properly maintained. Communities must incorporate basic operations and maintenance routines into their hazard mitigation programs to ensure a project's longevity. A lack of long-term planning for fortification measures can result in crumbling infrastructure that is easily overtopped by the undead. Please note that FEMA mitigation programs do not fund long-term maintenance and operations costs. Any infrastructure that has not been properly maintained is also not eligible for repair costs. Communities should identify funding sources, including funds for the non-federal cost share, and assess local capabilities in consultation with local finance professionals. For more ideas on funding sources, read our *Guide to Expanding Mitigation: Making the Connection to Municipal Financing*.



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RESOURCES

What is Mitigation?

[fema.gov/what-mitigation](https://www.fema.gov/what-mitigation)

Learn more about how FEMA defines mitigation.

FEMA Hazard Mitigation Planning

[fema.gov/hazard-mitigation-planning](https://www.fema.gov/hazard-mitigation-planning)

Review standards and guidance for the planning process.

Mitigation Funding Resource Guides

[fema.gov/media-collection/mitigation-funding-resource-guides](https://www.fema.gov/media-collection/mitigation-funding-resource-guides)

Guides to Expanding Mitigation

[fema.gov/about/organization/region-2/guides-expanding-mitigation](https://www.fema.gov/about/organization/region-2/guides-expanding-mitigation)

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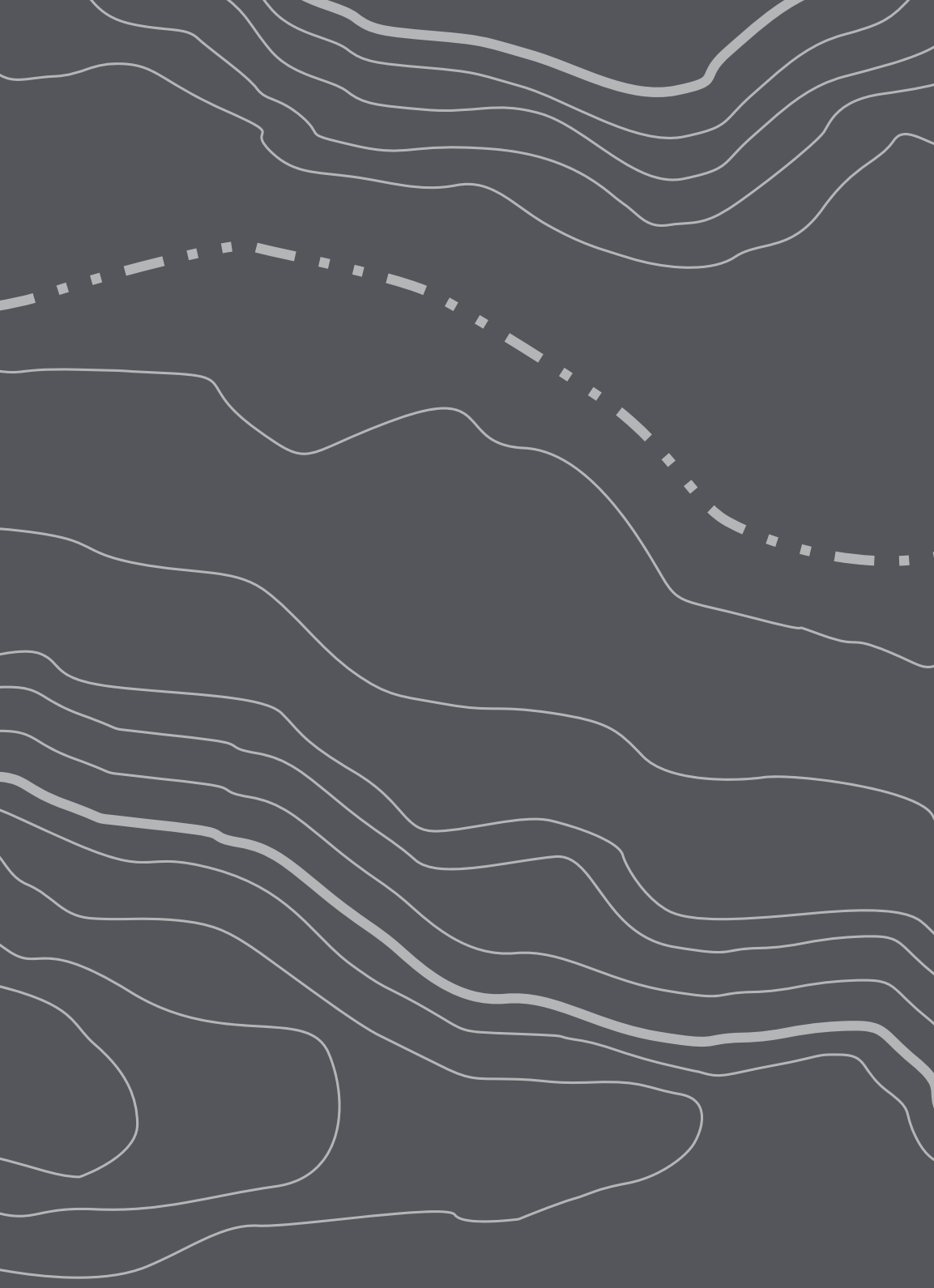
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ENGAGE WITH US

Are you a state, territorial, tribal, or local official interested in making the connection between the zombie apocalypse and hazard mitigation? Are you a professional interested in connecting with local officials to reduce risk from hazards? Please contact us at FEMA-R2-MT-Planning@fema.dhs.gov.





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