

HOW MONTANA PREPARES FOR WILDFIRE

ILLUSTRATED BY
DOMINIQUE WOODHAM



A Coloring Book by MSU Extension

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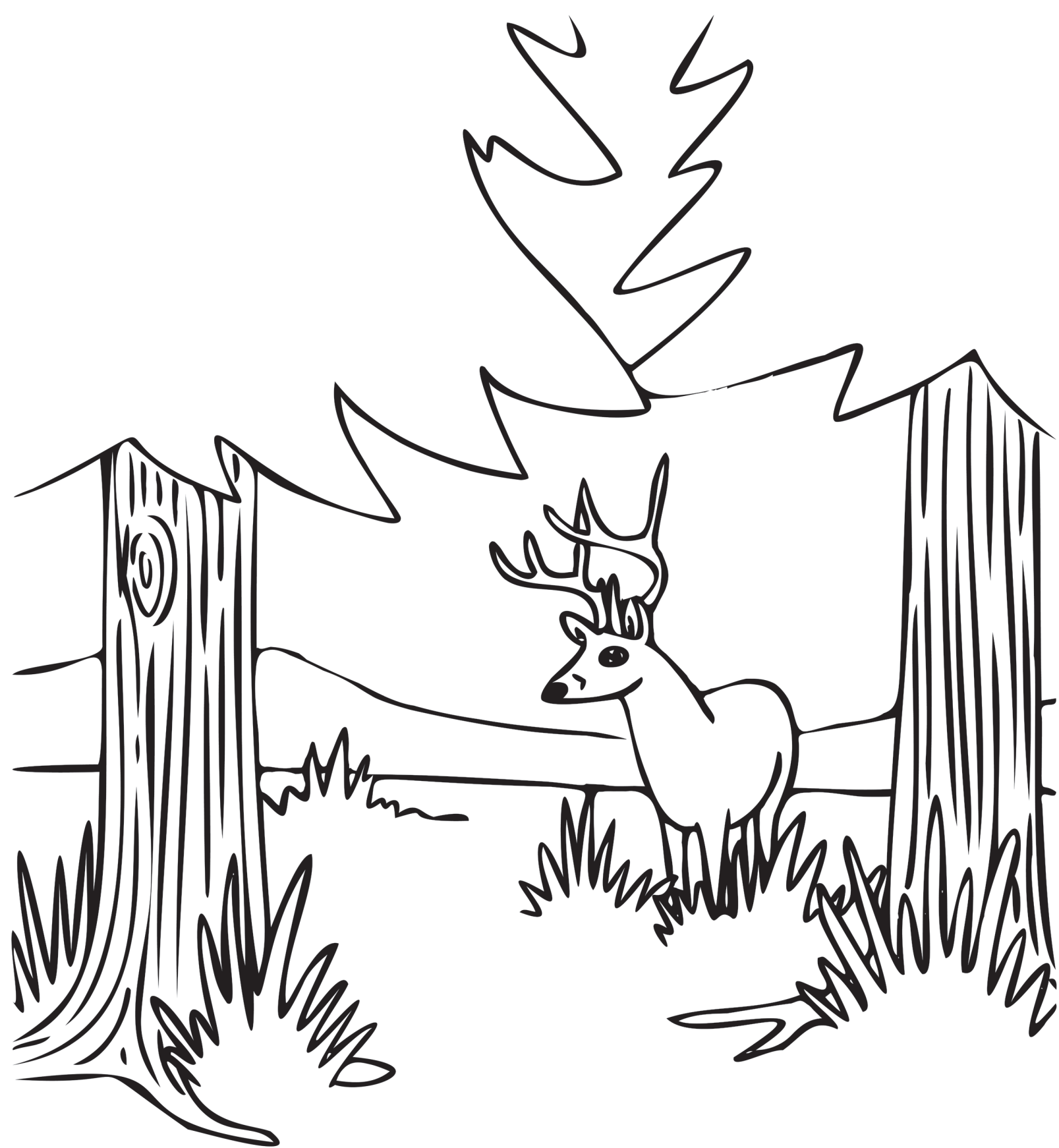


Every year, Montanans face a potential wildfire season. Smoke from wildfires drifts in from neighboring states and sometimes the wildfire is in our own backyard. This coloring book is meant to introduce families to ways to help reduce their risk of wildfire. You can learn from the illustrations how to begin wildfire planning and preparation activities, the ways firefighters manage wildland fire, and how communities and neighbors can be resilient after wildfire.



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Many plants and animals in Montana have characteristics that allow them to live with wildfire, so we call them fire adapted. Some trees have thick bark that helps them survive wildfire, while others are dependent on fire to sprout new seedlings. Grasses grow back quickly after wildfires, which provide food for some animals like deer.



Like plants and wildlife, people can be fire adapted too. People can build homes with fire-resistant materials and grow plants that are less likely to burn around homes. By understanding the important role of fire and planning for wildfires, people can be better prepared.



Why do some trees have thick bark? Because fire is a natural part of the landscape. Land managers sometimes use fire as a tool to help Montana forests and grasslands become healthier. A prescribed fire, or planned burn, is a fire that has a specific purpose, is started at a specific time and place, and is managed by professionals. Land managers only use this tool when it is safe to do so.



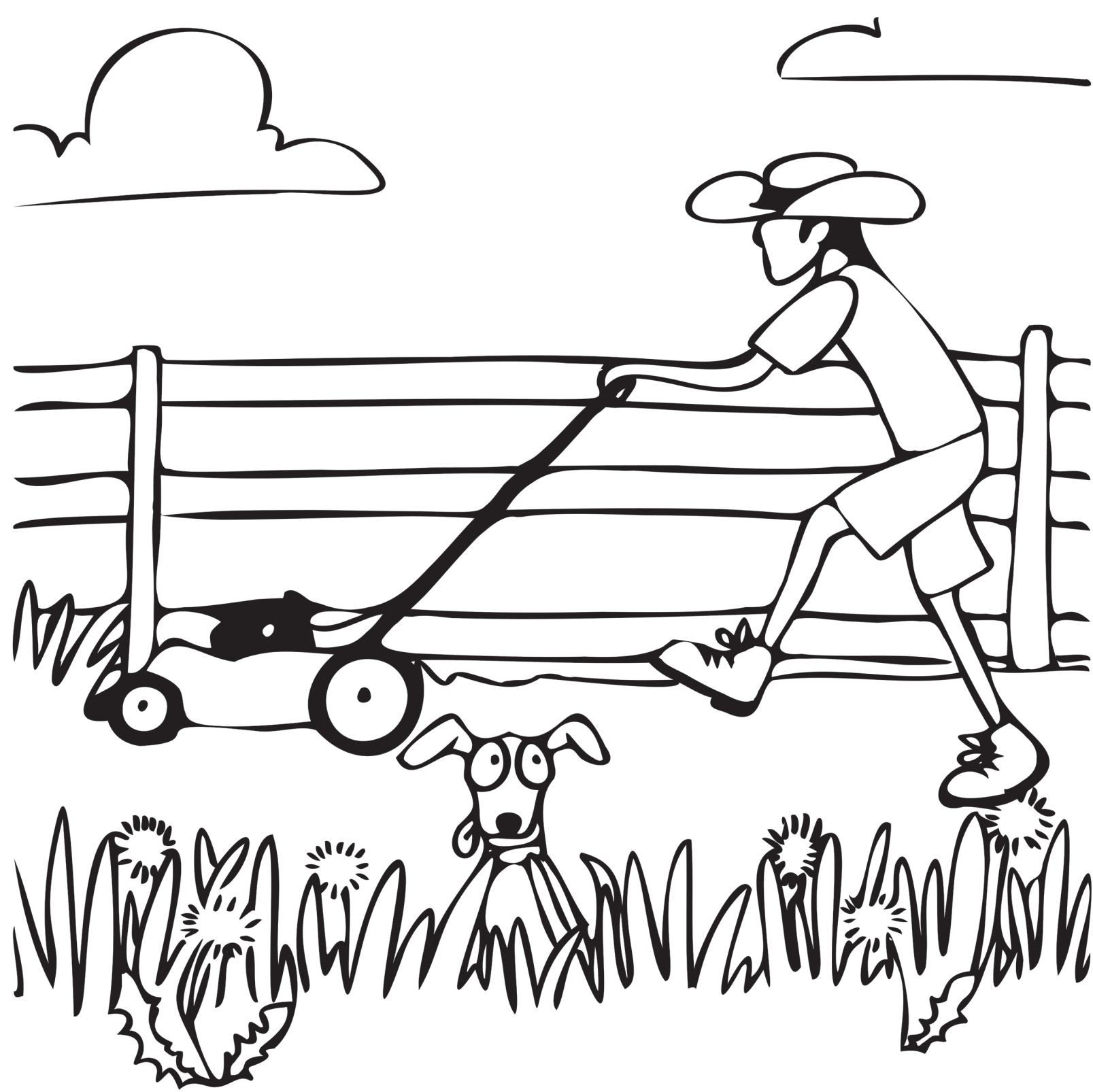
Farmers and ranchers can also manage land with prescribed fires. They burn fields to remove undesired vegetation, which makes way for new growth. Fires can also make the soil healthier by adding back nutrients. By burning land in a controlled way, farmers and ranchers reduce future wildfire risk. They only use fire as a tool when they have an approved burn permit.



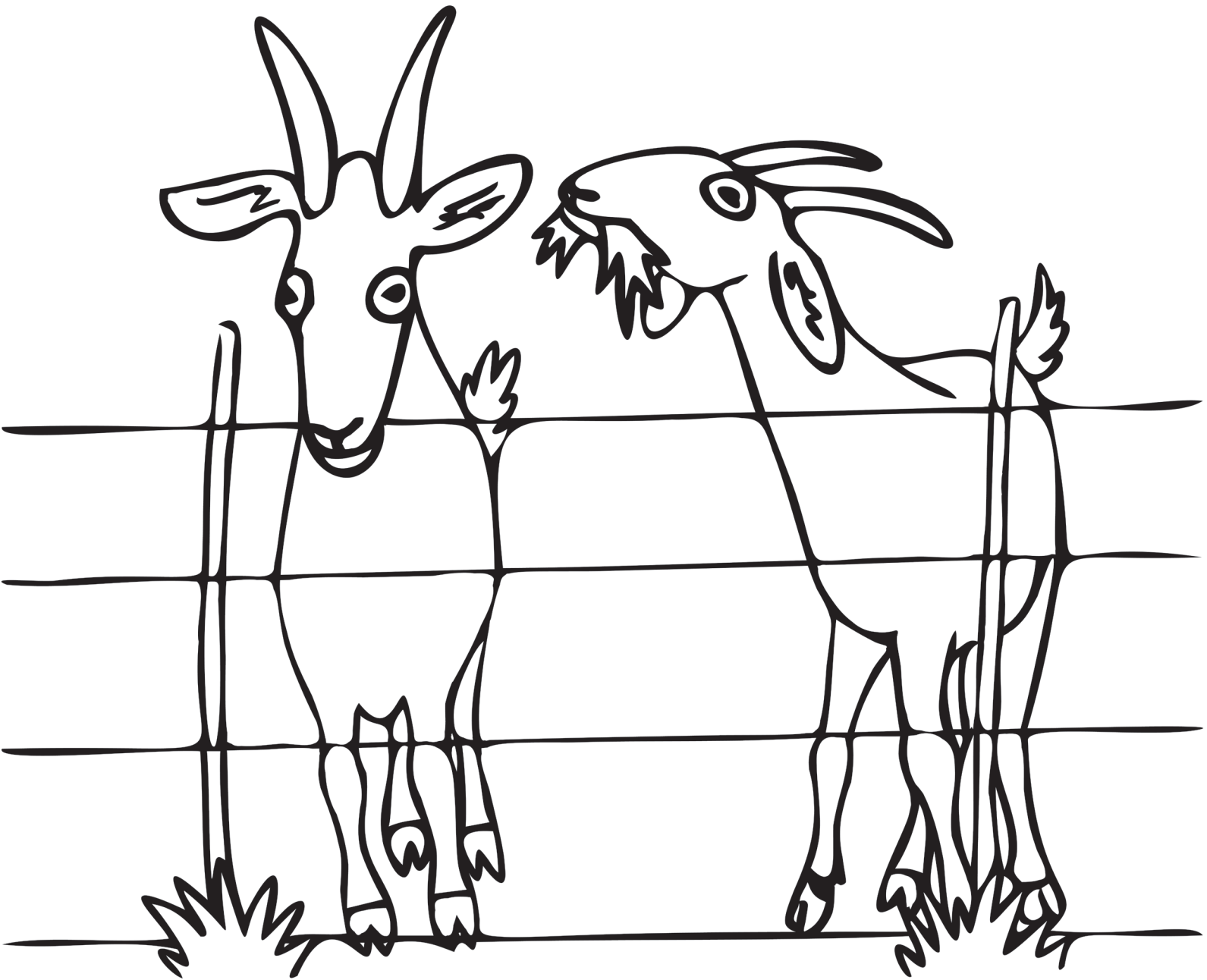
Communities can begin to reduce wildfire risk by removing flammable vegetation. This can mean cutting small trees and brush that serve as ladders for fire to crawl from the ground into larger trees. It can also mean removing larger trees that are close to other flammable things, like other trees or houses, so fire cannot spread between them.



Preparing for wildfire also means maintaining the area around a home. People can make this easier by working together to remove dry grasses, leaves and sticks that have collected on the roof, in gutters, on the porch or in the yard.



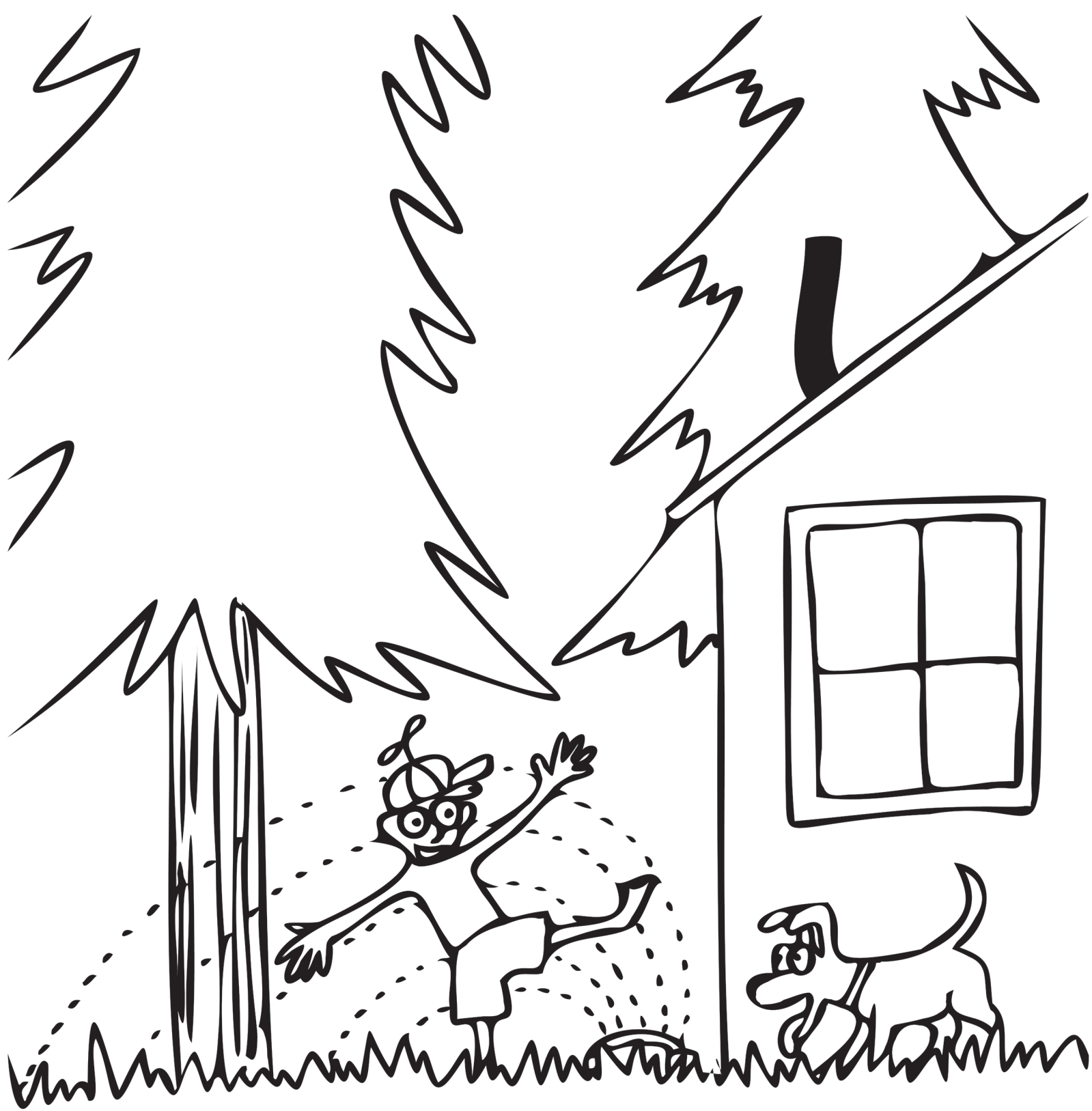
Dry grass is very flammable. Wildfires in tall grass can be dangerous and hard to stop. Keeping grass short and moist near a home helps reduce wildfire risk. Grass can be cut short with a lawnmower, or through grazing with livestock, like cows and sheep.



Similar to prescribed burning, prescribed grazing is when animals are managed by a shepherd to eat certain vegetation at a specific time and place, for a specific purpose. Cattle, horses and sheep are grazers that can be managed to eat unwanted grasses and goats are also considered browsers (like deer and elk), and will eat grass and brush. Through prescribed grazing these animals help reduce wildfire risk.



This cabin is not prepared for wildfire. Firewood, which is very flammable, is stacked against the home. If a fire ember were to ignite the wood pile, it could spread directly to the home. The tall grass surrounding the home is unmaintained. Wildfire quickly spreads in tall, dry grass. The cabin was built in a forest with dense, small trees and brush that serve as ladders for wildfire to climb from the ground into larger trees. The trees in this forest have branches that touch each other, providing a path for wildfire to move from tree to tree.



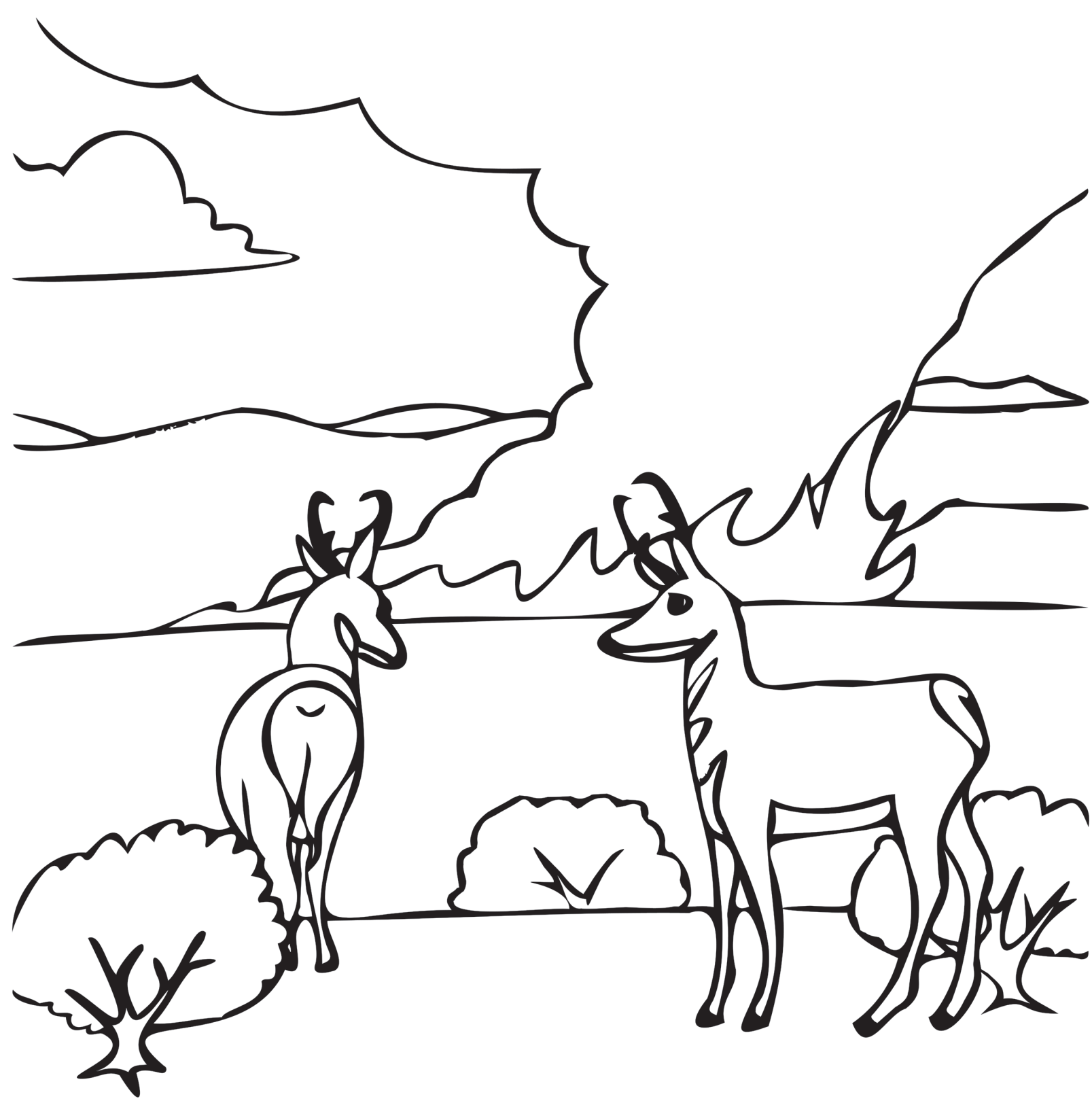
The family living in this cabin has helped reduce wildfire risk. They moved firewood away from their home. Working together, this family cut the grass and kept it moist with a sprinkler. A few weekends each year, the family uses tools to cut low tree branches and remove brush so there is more space between trees and less fuel close to the ground.



People can prepare for fire by creating a list in advance of important items (medications, paperwork, heirlooms) to take with them in case they must evacuate. It is also important to know where to go and how to get there when evacuating.



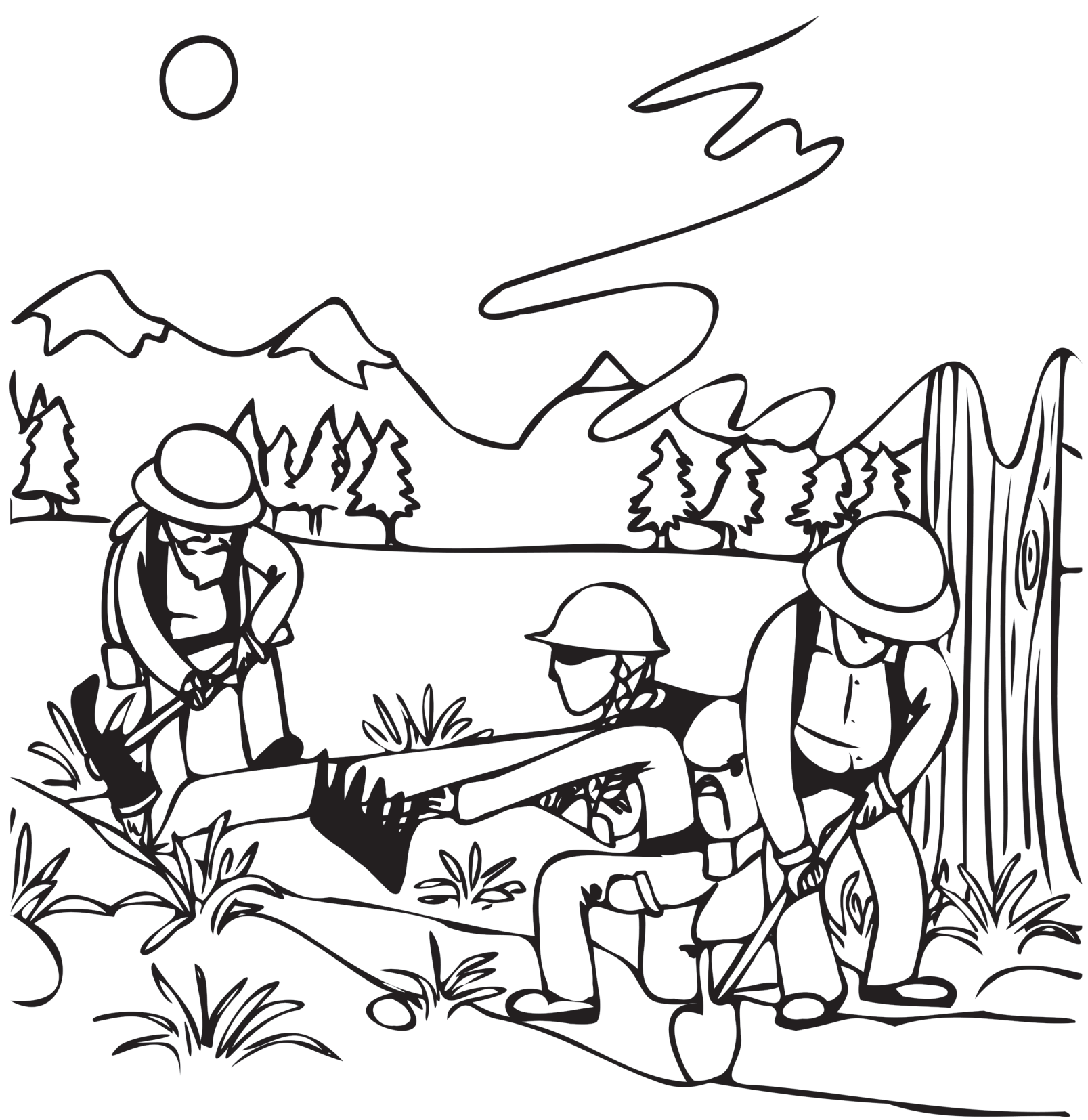
Animals are important too. Have a plan for transporting larger animals like horses or cattle in case of wildfire. If you had to evacuate your home, do you have a safe place you can take your animals? Also, don't forget to pack their food and medications.



Fires can occur anytime, anywhere, and can move very fast. In Montana, wildfires can even occur in the winter when there is no snow and it is very dry. Hot and dry, windy days can result in unpredictable fire behavior, and these fires can grow very large, very quickly.



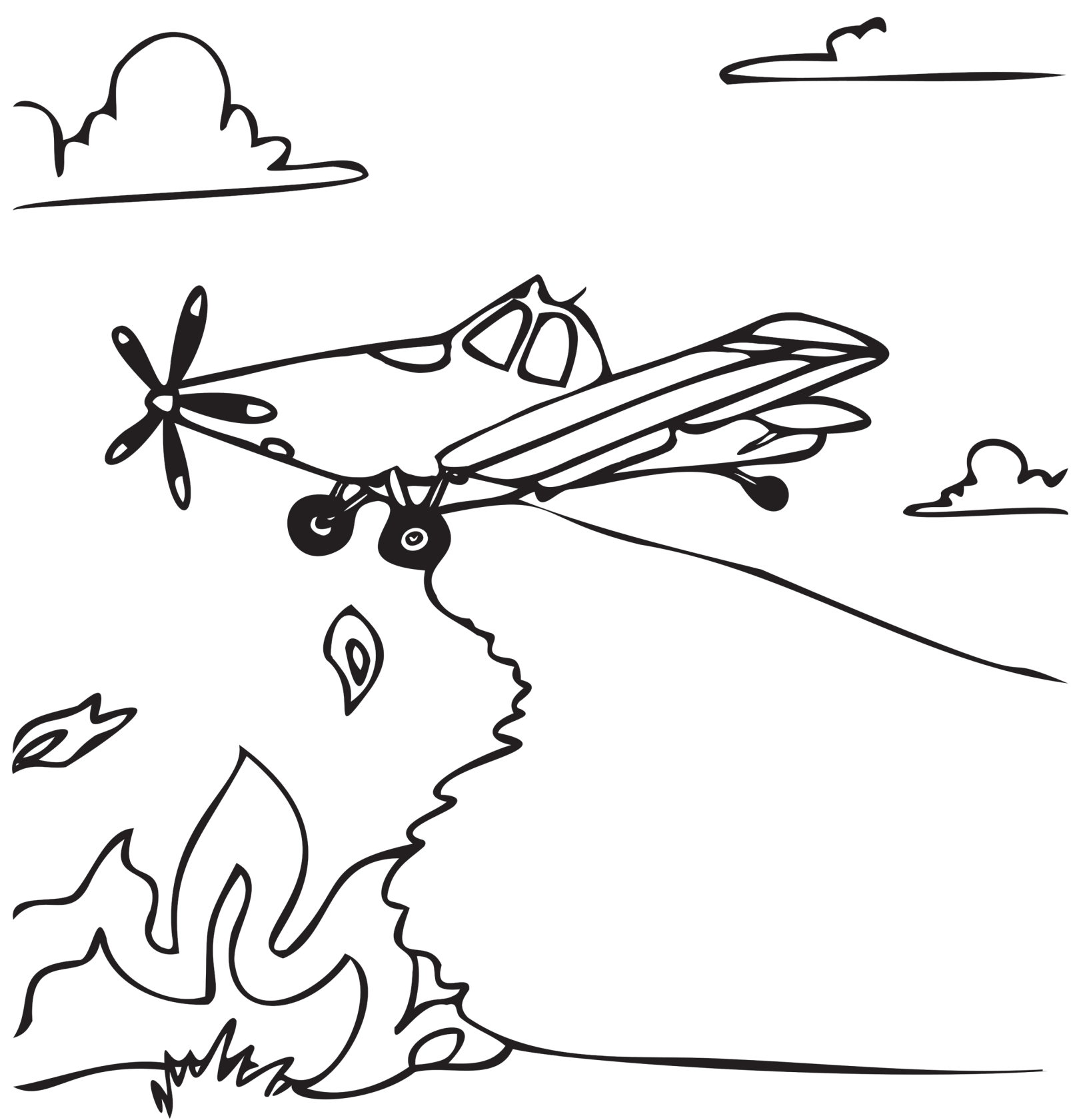
Fire moves the fastest when traveling uphill and on windy days, and that complicates firefighting. Many animals are able to move out of the way of wildfires and stay safe, but it is important to remember animals and people cannot outrun a wildfire.



A fireline is a break in flammable vegetation and can help stop a fire because bare soil does not burn. Firefighters use various hand tools to dig fireline. Firelines can help stop or slow a fire, giving firefighters a better chance at controlling the wildfire.



Depending on fire behavior and other factors like how steep the slope is and how dense the vegetation is, sometimes a fireline needs to be made wider. This can be done with large equipment like a bulldozer.



Small and large airplanes can be used to drop fire retardant parallel to firelines. Fire retardant can be quite effective for a few days in widening firelines and dampening fire activity. Fire retardant will eventually dry out, losing its effectiveness.



Large buckets filled with water can be attached to helicopters. Water is dropped on flames to dampen fire activity. Helicopters also help transport firefighters and their equipment to remote or hard-to-access areas.



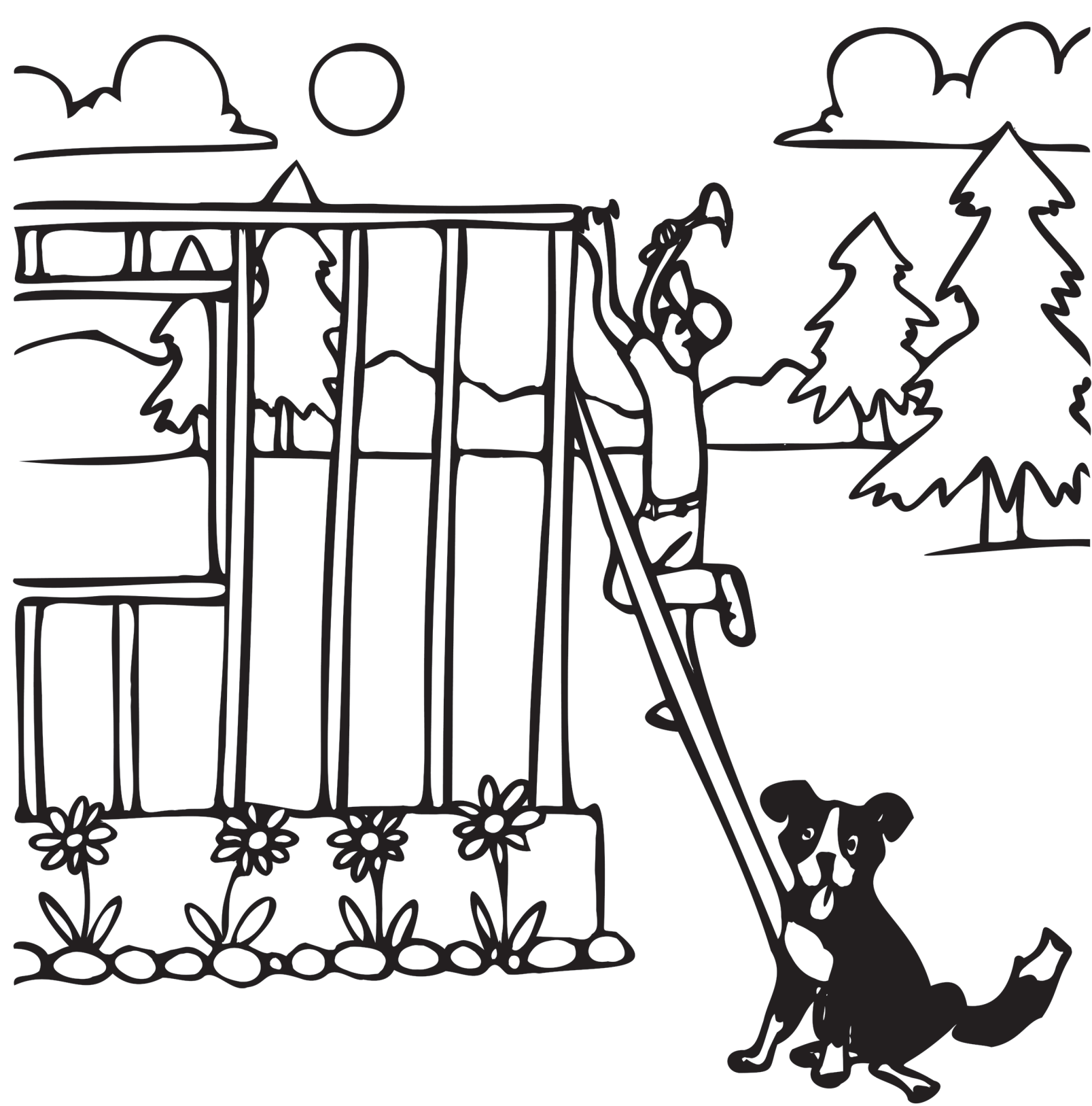
If fire activity is low, fires burning in short grass can be smothered with a flapper. A flapper is a long-handled tool with a piece of rubber on the end that is used to swat and extinguish flames in short grass and allows firefighters to move quickly along the fire edge. When using a flapper, it is important to have many eyes watching the fire edge and to have water available from a nearby fire engine for backup.



Even with the best effort of firefighters, some wildfires cannot be contained and controlled until substantial rain or snow dampens fire activity. This is why planning and all steps taken to prepare for wildfire are important.



Even with planning, preparedness and swift wildfire response, there can be damages and loss caused by wildfire. It is important to remember there are always neighbors and friends ready to help with recovery.



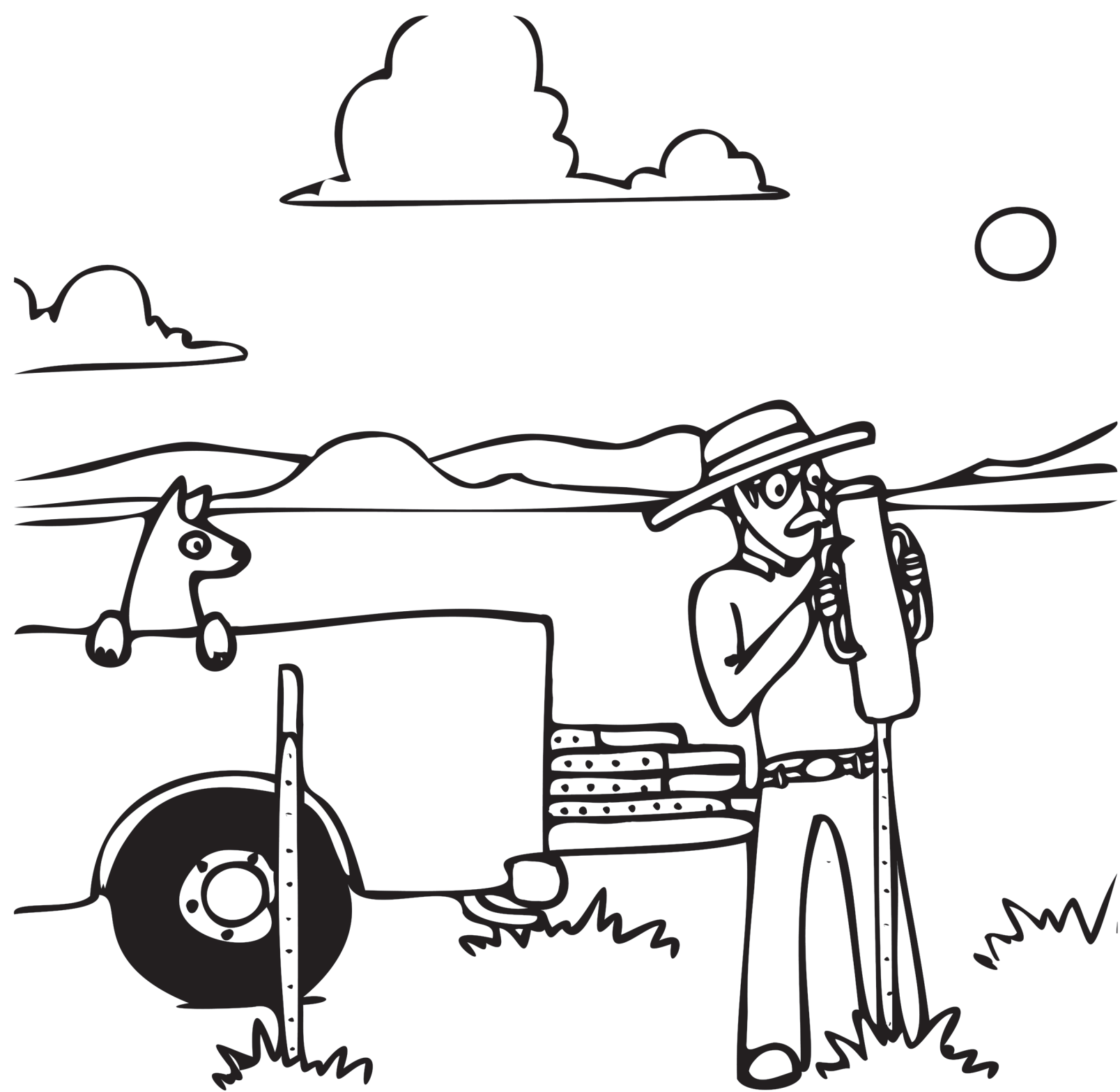
Communities can recover and get back on their feet much more quickly following a wildfire when they work together. People who have lost their home due to a wildfire need shelter, food, clothing, and safety.



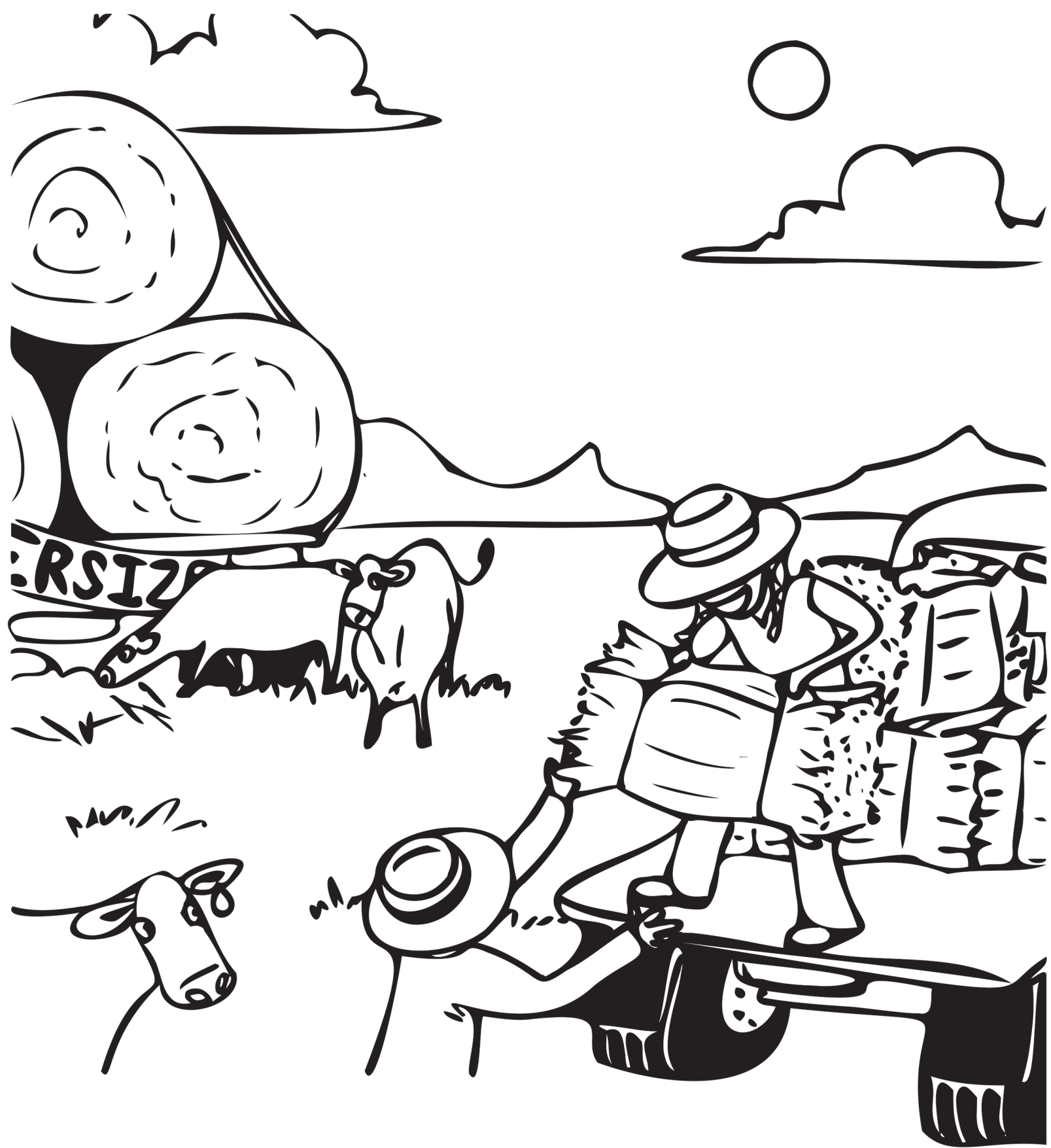
Even fire-adapted landscapes will experience damages from wildfires, because with less plants the soil may erode more easily or absorb less water, leading to the potential for flooding. Just like good neighbors, we can help the landscape recover quickly by planting and reseeding in areas where it is needed.



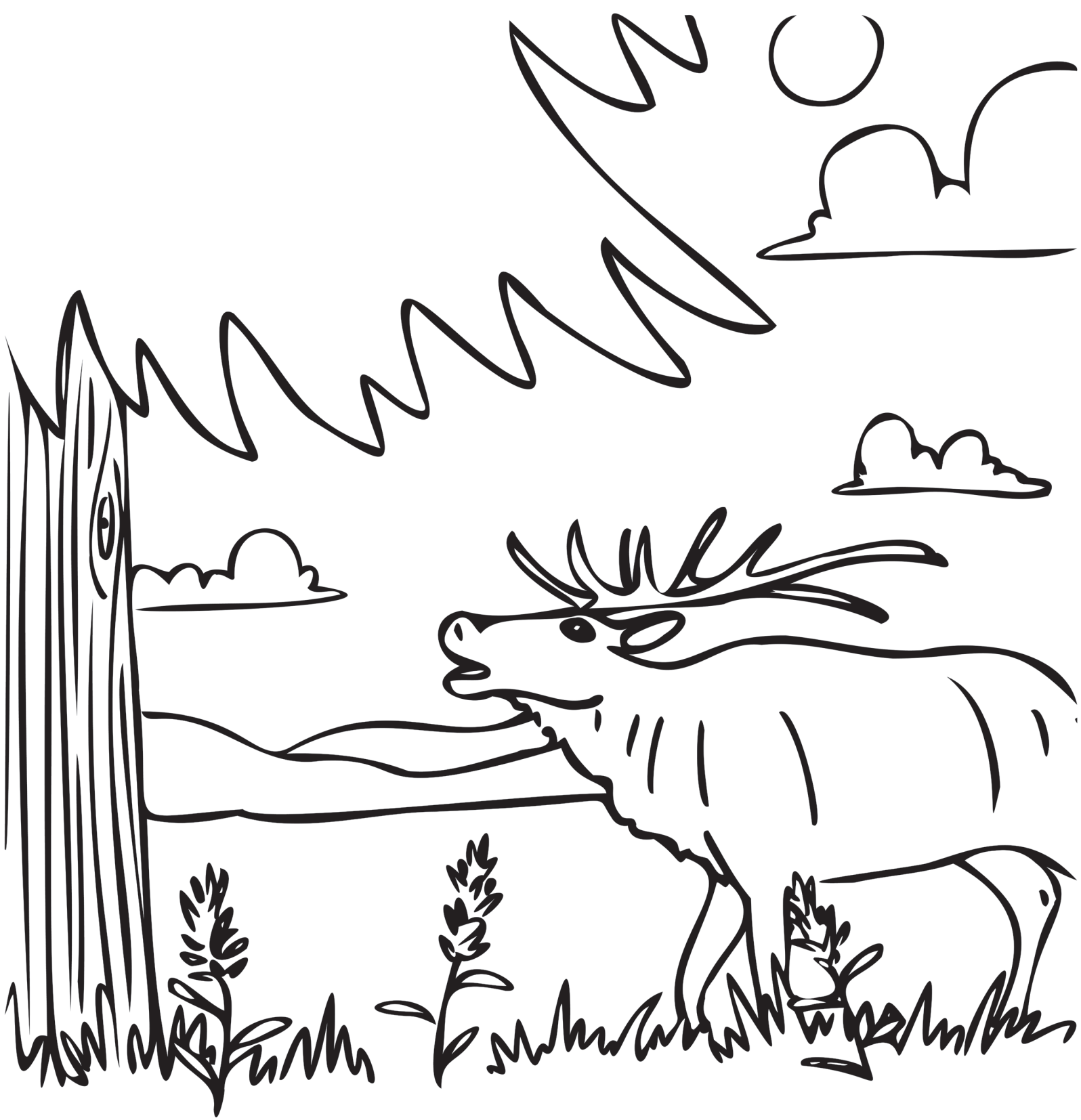
The first thing ranchers do following a wildfire is check on the health and safety of their animals. They work together to find lost animals and take care of them.



After taking care of animals, ranchers and farmers start rebuilding and repairing burnt fence lines. Strong fences keep ranch and farm animals off roadways and away from unsafe areas.



Communities gather and collect donations to share with neighbors affected by wildfire. In the vast landscape of Montana, the type of donations needed varies by community. On farms and ranches it is helpful when donations are made to help keep animals fed and safe following wildfires.



And of course, not all wildfires are destructive and damaging. However, when people, landscapes and animals are prepared for and adapted to fire, they will be better able to respond to and recover from wildfire.

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