Language Arts Connection

FIGURE 19: A specially designed air tanker drops a load of fire retardant to slow the progress of a California wildfire.

Should Forest Fires Be Suppressed?

Forest fires can cause considerable damage to forest ecosystems; therefore, wildland firefighters work hard to contain and put out forest fires. They use heavy equipment, such as bulldozers, to stop the spread of wildfires. Sometimes airplanes and helicopters carrying water or fire retardant are also used to put out the fires, as shown in Figure 19.

Fire is a natural part of many ecosystems. It cycles nutrients back into the soil from plants. In some forests, shrubs growing underneath the trees are naturally removed by cyclically occurring fires. In most cases, these fires leave the trees and other organisms living in the ecosystem unharmed. With increased efforts to prevent and stop forest fires, shrubs and other understory species grow thick. When a fire does occur, it burns extremely hot and catches the trees on fire. This can have a catastrophic impact on the forest as a whole.

After major forest fires in the late 1800s, early conservationists became concerned about the effect of wildfire on future timber supplies. In 1905, they convinced the United States government to establish the U.S. Forest Service. This agency developed fire protection practices in an effort to conserve what came to be known as national forests.

Just five years later, a series of fires burned 3 million acres over a three-state region. The "Big Blowup," as it was called, changed national thinking about fire management. State and Federal forest officials decided the best way to protect the national forests was to completely suppress any and all wildfires. To that end, policies were enacted that were designed to stop fires completely when possible and put out any fire that did occur as rapidly as possible.

At the time, conservationists and foresters did not understand fire's ecological importance to a forest ecosystem. They believed all fire was bad, because it damaged timber, an economically important resource. As a result, they banned the use of fire to clear underbrush and improve soil. They also constructed roads, watchtowers, and ranger stations to make it easier to detect and reach any forest fire quickly.

In the 1930s, a firefighter corps was established that could be sent anywhere a forest fire occurred. As technology advanced, airplanes and helicopters were added to the ground equipment to drop firefighters and fire-suppression chemicals wherever they were needed. Today, the National Interagency Fire Center (NIFC) coordinates and supports the deployment, training, and certification of firefighters, equipment, and support staff nationwide.

Through continued research, scientists found that fire can actually be helpful to some ecosystems, and Forest Service officials began to realize that fire suppression led to a buildup of fuel that made fires much more hazardous when they did break out. This led to a change in policy that allowed for prescribed burns to manage fuel loads in certain forests and other wildlands, based on the ecological needs of the area.

How do officials decide where and when a wildfire should be fought instead of being allowed to burn? Ecosystem characteristics play a major role in these decisions. For example, stands of Rocky Mountain lodgepole pines need regular exposure to fires severe and intense enough to wipe out the stand and allow a new one to grow in its place. Other plants depend on fire as part of their reproductive strategies. For example, the cones from sequoia trees need fire to open and release their seeds. Fire also exposes bare soil where the seeds can take root and opens the forest canopy, allowing light to reach the seedlings, which helps them grow. On the other hand, wildfires in zones near human populations require active suppression to protect life and property. As human development takes over what were once wild spaces, the potential for widespread catastrophe increases.

Climate affects fire management policy as well. Naturally occurring events such as the yearly Santa Ana winds that blow along coastal Southern California and northern Baja California contribute to the outbreak and spread of wildfires. Lightning strikes, heat waves, and droughts also increase the occurrence of wildfires. Climate change is beginning to increase the severity of weather phenomena that contribute to wildfires. These fire events increase the amount of stored carbon released into the atmosphere. All of these factors require officials to be flexible in their policy decisions.

Lastly, cost figures into the development of fire management policies. Fighting wildfires is expensive in terms of hours worked, transportation, and equipment costs. Wildfires also cause economic damage to communities and endanger lives. Officials must weigh these factors when determining whether to practice fire-suppression policies.

FIGURE 20: Forest fires can cause significant economic damage to cities and towns in their path.

Language Arts Connection

Some policymakers think that natural wildfires should be allowed to burn or that controlled burns should be used as a forestry management tool. Others argue that the risk of letting fires burn or starting controlled burns pose a hazard to the forests and people. Select a position on whether or not to allow controlled burns. Research to learn about the pros and cons of controlled burns.

Gather information and write a one-page position paper. Your paper should discuss your viewpoint and cite evidence from your research to support your claims.

After completing your research and writing your position paper, you will take part in a classroom debate. In the debate, you will have an opportunity to state and defend your position using the information you gathered in your research. Be sure to listen to the students who agree with your position and those who disagree as you make your own arguments.

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