

## *Science Reading Selection: Year of the Fires*

During 1988, approximately 60,000 wildfires burned almost 2.4 million hectares (acres) of forest in the United States. The largest fire in Yellowstone National Park's history covered nearly 400,000 hectares (1 million acres). Alaskan fires in the tundra and spruce forests destroyed over 890,000 hectares (2 million acres). There were 10,000 blazes in California alone. Fighting the fires cost more than \$580 million and ten lives. A combination of factors helped cause the fires. Dry ground conditions, little summer precipitation, and the 1963 "let it burn policy" were responsible.

Previous to 1963, the U.S. Forest Service applied what was called the "10:00 AM policy" to forest fires. Any fire that broke out was to be under control by 10:00 AM the following day. This policy was based on theories about forest management in the plantation forests of Europe. However, ecologists established that burning is essential for the preservation of many natural forest communities. For example, jack pine and lodge pole pine will not release seeds unless they are exposed to the intense heat of a forest fire. Fires also help deer, elk and other animals by allowing new vegetation to grow on the cleared soil.

Understanding the role that fire plays in the natural forest ecosystem led to the establishment of the natural - burn or let-it-burn policy. The policy allows natural fires to burn unless they threaten people, property or endangered species. The policy seemed to be in the best interest of the forest ecosystem. The problem was that nature had not been allowed to take its course for almost 100 years.

During the years of fire prevention, the forest floor had accumulated undergrowth and dead wood. The litter on the forest floor was thick and dry. It was the hope of the U.S. Forest Service that natural fires would burn themselves out or that precipitation would dampen the fires before they got out of control. This proved to be true - until 1988.

In the summer of 1988, dry weather turned the forest floor into kindling. All it took was a spark, which was supplied by lightning and a careless cigarette smoker in Yellowstone National Park. When the fires began, the park officials thought that rain and the structure of the park would tame the fires. But the rain never came, and the winds blew the flames over natural barriers. Thousands of fire fighters had to be called in to help stop the enormous fire that rages out of control.

After the fires of 1988, the let-it-burn policy was under debate. However, the policy still stands. In many forests small controlled fires are deliberately set to clear away the underbrush. By using controlled burning, disastrous fires like those of 1988 can be avoided.

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**PART I: Comprehension:**

1. Why is 1988 called the "Year of the Fires"? \_\_\_\_\_  
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2. What was the cost per hectare for fighting the fires? \_\_\_\_\_
3. What is the relationship between hectares and acres? \_\_\_\_\_
4. Explain how fire can be considered a necessary part of forest ecosystems.  
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5. Explain the *natural - burn policy* of the U.S. Forest Service. \_\_\_\_\_  
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6. The cause of the Yellowstone fire of 1988 was not completely natural. Explain.  
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**PART II: Decisions**

1. Compare the "10:00 AM policy" for forest management and the "let-it-burn" policy. \_\_\_\_\_  
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2. Which forest management policy do you endorse. Make your choice and defend it in 3 sentences. \_\_\_\_\_  
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