



LESSON 4

Forest Management Issues

NUTSHELL

In this lesson, students brainstorm ways to manage a piece of property and discuss factors that can affect management decisions. They examine forest management techniques and determine their effect on society, the economy, and the environment. After reading an article about a controversial forest-related issue, students evaluate some of the conflicts that can arise because of differing beliefs, values, and knowledge.

BIG IDEAS

- Management may have positive or negative social, economic, or ecological effects, which may affect resource sustainability. (Subconcept 46)
- People's perceptions of forest management decisions may differ when their beliefs, values, and knowledge differ. Issues can arise from these differences. Management decisions can be affected by many factors (e.g., politics, science, emotion, economics). (Subconcept 47)
- The use of some management techniques (e.g., fire, clearcutting) can be controversial because they may have safety issues, aesthetic impact, and their current and past use is sometimes misunderstood. (Subconcept 48)
- Managing forests for multiple use can meet the needs of many users. Some forest uses are not compatible, so conflict may arise. (Subconcept 49)

OBJECTIVES

Upon completion of this lesson, students will be able to:

- Explain how forest management may have positive or negative social, economic, or ecological effects.
- Recognize that management decisions can be affected by many factors.
- Explain how people's beliefs, values, and knowledge shape their perceptions of forest management.
- Identify issues that can arise when people's perception of forest management differ.
- Identify and discuss why some management techniques are controversial.

SUBJECT AREAS

Language Arts, Science, Social Studies

LESSON/ACTIVITY TIME

- Total Lesson Time: 165 minutes
- Time Breakdown:
 - Introduction 20 minutes
 - Activity 1 60 minutes
 - Activity 2 65 minutes
 - Conclusion 20 minutes

TEACHING SITE

Classroom



BACKGROUND INFORMATION PERCEPTIONS OF FOREST MANAGEMENT

How we view **forest management** and the issues associated with it vary greatly. Our views depend on our beliefs, values, and knowledge. Issues may arise due to differences in beliefs, values, and knowledge. **Knowledge** is the information or facts someone has about something. **Beliefs** are what someone holds to be true. They hold it to be fact based on their level of knowledge and experience, even though the belief may not be accurate. **Value** is the worth someone places on something. Values are based on beliefs and knowledge. As new knowledge is gained, often beliefs are refined and values may change.



MATERIALS LIST

FOR EACH STUDENT

- Copy of Student Pages  **1A-C**, *Forest Management Techniques and Actions*
- Copy of Student Pages  **2A-C**, *Anticlearcutting Lawsuit Called Threat to Diversity*




FOR EVERY 3 TO 4 STUDENTS

- Copy of Student Page  **3**, *Issue Analysis Guide*

FOR THE CLASS

- Marker/chalk board or chart paper

FOR THE TEACHER

- Teacher Page  **1**, *Forest Management Techniques and Actions Discussion*
- Copy of Teacher Page   **2**, *Issue Analysis Guide Key*

Knowledge, beliefs, and values, in turn, are determined by such things as family and economic backgrounds, religion, level of education, and awareness of and interest in specific issues. Someone who has grown up hunting game as a food source and as a form of recreation may view a small **clearcut** that regenerates aspen and the wildlife associated with it positively. Someone who has used forests for hiking and has enjoyed the diversity of a mixed-age stand may view that same clearcut negatively.

A variety of factors affect management decisions, especially on public lands. Politics and emotions sometimes keep people from evaluating a decision logically, but they may also force issues to come to the surface and be addressed. Current management techniques are based on high levels of scientific research and technology, although all who make management decisions may not take science and technology into consideration. Economic considerations sometimes overrule other considerations. If long-range profit is the goal, management techniques will favor **sustainability** and are likely to be well balanced. If, however, the goal is to make money as quickly as possible, cutting trees may occur with little consideration of anything other than the value of the timber itself.

Managing for **multiple use** can meet the needs of many users and provide a range of benefits. Not all uses are compatible, however. A hiker won't feel comfortable hiking the border of a hunting area during hunting season. Similarly, it may be difficult to make roads for timber harvest if the road has to pass through a wildlife sanctuary. Some of these problems can be solved through careful planning, but some cannot. A trail may be open to hikers and horses, but the horse traffic is more likely to promote erosion, and their waste is not something most hikers want to deal with. Hikers, for their part, may "spook" the horses. Separate trails for hikers and horses could be established to address the conflict.

Different aspects of forest management may be viewed as positive or negative depending on the perspective from which they are considered. With certain types of forest management techniques (e.g., fire, clearcutting), controversy may be related to past use of the method, safety concerns, or the visual impact of the technique. Sometimes misunderstanding or lack of knowledge about why a certain harvest technique is used can lead to negative perceptions of that technique. Not only is it important for students to understand why certain techniques are used, but also why issues can arise from their use.



VOCABULARY

All-aged Management: A technique used to maintain a stand with trees of all ages from seedlings to mature.

Belief: Something that a person thinks to be true to the best of his/her knowledge.

Best Management Practice (BMP): A combination of practices aimed at protecting waterways.

Clearcut: An area where all the trees have been harvested at the same time.

Even-aged Management: A technique used to maintain a stand with trees of uniform age and size.

Forest Management: The use of techniques (e.g., planting, harvesting) to promote, conserve, or alter forests to meet desired outcomes.

Knowledge: The information or facts someone has about something.

Multiple Use: A type of forest management that promotes at least two types of forest use (e.g., for recreation and wildlife habitat).

Prescribed Fire: A fire planned and executed to achieve management goals.

Stand: A group of trees in a given area.

Sustainability: The ability of natural resources to provide ecological, economic, and social benefits for present and future generations.

Sustainable Management: Maintenance of forests to meet current and future ecological, economic, and social needs.

Timber Stand Improvement (TSI): A forestry practice used to improve the composition, structure, condition, health, and growth of a forest stand.

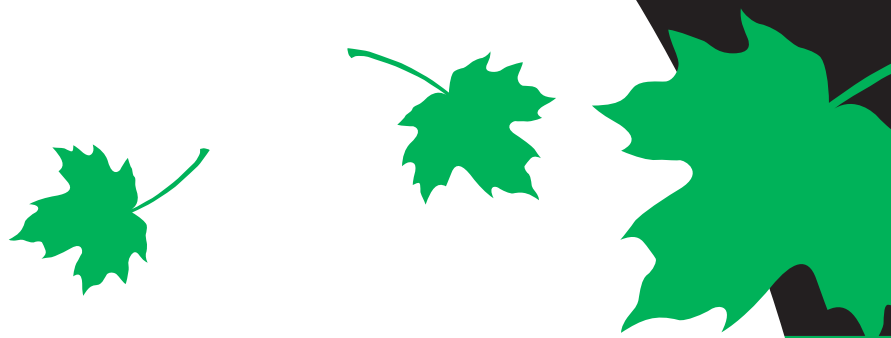
Value: The worth someone places on something.

FOREST MANAGEMENT – ECONOMY, ENVIRONMENT, AND SOCIETY

Forest management may affect the **economy**. For instance, cutting trees creates employment (logging, hauling, milling or other processing, sales of the product, etc.) and direct profit to the seller of the trees. On the other hand, if the cutting makes that forest less desirable for such things as recreation or hunting, profits related to those uses will go down. The method of timber harvest may increase or reduce the value of that land over the long term. Careful thinning of crowded, poor quality trees can create a better forest, while harvesting only the very best, high profit trees (high grading) can result in a poor quality forest.

Forest management affects the **environment** as well. A clearcut that may seem only to be ugly and to destroy habitat is often used to regenerate aspen. Aspen provide habitat for a variety of wildlife including white-tailed deer, black bear, cottontails, snowshoe hare, beaver, ruffed grouse, woodcock, sparrows, warblers, red-eyed vireos, thrushes, flycatchers, and many snakes, frogs, and toads. Timber harvesting can be done in a way that leaves some dead wood behind for dens and nests, protects some large trees as perch and nest trees, and leaves brush behind to decay for insects and small creatures at the ground level. On the other hand, every bit of harvested vegetation can be processed in some way if removed from the site. In this case, wildlife reaps none of these benefits.

Society is affected by forest management not only economically, but also in other ways. Forest management on a school forest provides many educational opportunities. There can also be recreational benefits or consequences. Harvests that leave some trees uncut create areas for campgrounds or make areas more accessible for sports enthusiasts. Cutting often favors game species because the sunlit openings created allow for more growth of herbaceous



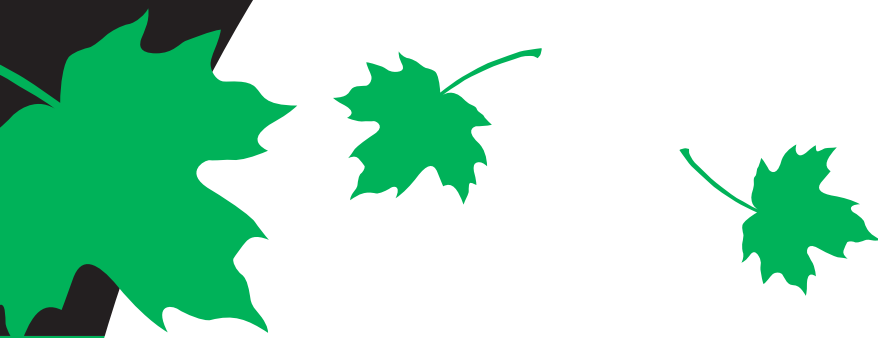
plants, shrubs, and small trees that are good food sources for deer and many birds and small mammals. A well-managed forest can contribute to clean air and water, making the area where it is located a healthy place to live. Many people also find forests peaceful, relaxing places, so there may be mental health benefits, as well.

Considering all the different ways in which forest management can be viewed and all the sources of potential conflict, it is important that students understand how this conflict can arise. They may not be directly involved in management decisions, but it would be difficult for them not to be affected in some way.

PROCEDURE



INTRODUCTION - FOREST MANAGEMENT INFLUENCERS

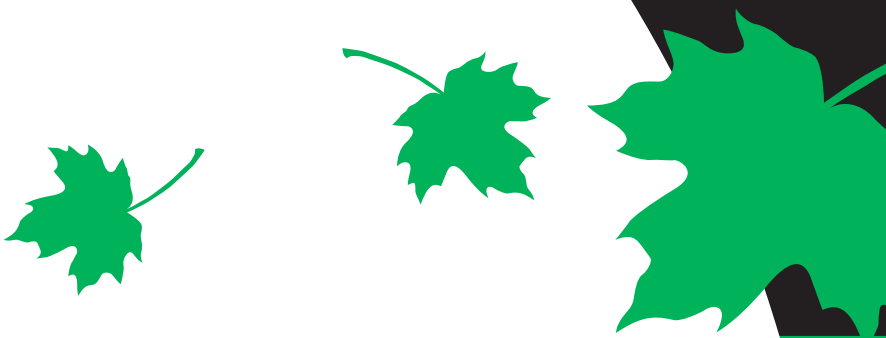
1. Have the class count off by four. Assign each group one of the following roles: paper company, wildlife biologists, recreation planners, land developers. Ask students what they would do if they were in charge of 10,000 acres of forest. Give the groups a few minutes to write down their ideas. Their answers should reflect the role they have been given.
 2. Make four headings on the board or on separate sheets of chart paper: Paper Company, Wildlife Biologists, Recreation Planners, and Land Developers. Have groups list their ideas beneath the appropriate heading. Explain that their suggestions are examples of forest management ideas.
 3. Now tell the class that there is only one 10,000-acre stand of forest. Ask if they can do all the things that are on their lists. (*No, although they might be able to do some of them at the same time.*) Ask why they can't do all of them. (*Not enough land, some uses would limit the forest for other uses, etc.*) Ask students to think of a word for situations where problems arise because different
- people want to do different things in the same place. (*Conflict or controversy. It may take some teacher guidance to arrive at these words.*)
4. Ask each group why they made their choices. Have them add these reasons below their list.
 5. Ask students to suggest ways to group all the reasons. (*Possible headings are money, aesthetics, recreation, and environment.*) Tell students that three factors probably had a big influence in the choices each group made – knowledge, beliefs, and values. Write these on the board as you discuss them.
- Define knowledge. (*The information or facts someone has about something.*) Ask students to give an example of knowledge they used in their groups. (*As Wildlife Biologists, they may have known forests were important for wildlife habitat. As Land Developers, they may have known that cutting trees and building houses would be profitable, etc.*)
 - Define belief. (*Something that a person thinks to be true to the best of his/her knowledge.*) A belief may or may not be true. Ask students how beliefs played a role in their decisions of which forest management idea to choose. (*Wildlife biologists may have believed that not cutting trees was best for wildlife, but they didn't know that a species that needs open spaces was present in the forests. Recreation managers may have believed that the forests should have trails for hiking, biking, skiing, snowmobiling, etc., with no cutting of trees, when in reality the sale of some timber could help fund the maintenance of the recreation trails, etc.*)



- Define value. (*The worth someone places on something.*) There are many different types of values (e.g., economic, aesthetic, recreational, ecological, etc.). Ask how values contributed to their groups' decisions. (*Some students enjoy wildlife, so they made decisions that enhanced wildlife habitat. Other students may favor money, so they made decisions that would be profitable. Some students enjoy recreating in the forest, so their decisions were based on maximizing recreational opportunities.*) Values are based on knowledge and beliefs. They may change if knowledge changes or beliefs change. For example, if someone enjoyed watching deer in the wild and believed that not cutting trees was best for this species of wildlife, they might value dense forests. However, if their knowledge changed and they found out that deer need some clearings in the forests, their belief about what deer need would be altered. In turn, their value of dense forests would change as well.
6. Conclude this part of the lesson by pointing out that there are many issues related to forest management. The reasons conflicts arise are similar to the ones they've arrived at in this discussion. (Different beliefs, values, and knowledge.) Even though they may never actually manage 10,000 acres of forest, they have a stake in our public lands, and many have families who own wooded properties. The activities they do in forests, the way they treat wooded areas, and the choices they make that have to do with forests and wood products have impact. It is important to understand why people have different perceptions about forests and their use and to understand the reasons behind forest management decisions.

ACTIVITY 1 - FOREST MANAGEMENT TECHNIQUES AND ACTIONS





1. Give each student a copy of Student Pages  **1A-C**, *Forest Management Techniques and Actions*. To begin, they should only fill in the "you" columns. Students should decide whether each method or action has a positive or negative effect on society (including education, recreation, and quality of life), economics (including jobs, costs, and profits from sales) and the environment (including wildlife, pollution, erosion, water quality, and how an area looks). After they have done this individually, have them go through it again in pairs and try to reach an agreement. Mark these answers in the "partner" columns. Lastly, (if time allows) do the same thing in a larger group or as a whole class. Mark these answers in the last "group" column.
2. Use Teacher Page  **1**, *Forest Management Techniques and Actions Discussion* to lead discussion. Identify forest management action/techniques from the worksheet that were the most difficult to reach a consensus about. Discuss what makes them controversial. (*For instance, do they have more visual impact, have they gotten more coverage by the media, do they affect forests "closer to home," is the purpose of that management technique misunderstood, does management for one use conflict with another use?*) Emphasize that in most instances there is no right or wrong decision for all people and all forests. What may be perceived as good for economics may not be perceived as good for the environment or vice versa. What one person thinks is important may not be equally important to another person, because their values are different. Discuss factors that influence opinions. (*Previous knowledge, personal experience, values and beliefs.*) Discussion could also center on how



those values and beliefs are formed. Explain that forest management methods and actions may be viewed to have positive or negative social, ecological, and environmental effects based on variations in people's knowledge, values, and beliefs. As a result, issues often arise. One of these issues will be studied in the next activity.

3. A good extension is to have students use this worksheet with parents, teachers, or other adults and compare those results.


ACTIVITY 2 - FOREST MANAGEMENT ISSUES

1. Divide the class into groups of three or four. Give each student a copy of Student Pages  **2A-C**, *Anticlear-cutting Lawsuit Called Threat to Diversity*. (Any article which deals with a forest-related controversial issue and includes various points of views expressed by different people could be substituted.) As students read the article, have them think about what the issue is and who is involved in it.
 2. After each student has read the article, have the groups work together to fill in Student Page  **3**, *Issue Analysis Guide*. They should identify who is involved in the issue and what their affiliation is (e.g., government, forest service, environmental group, or researcher) and what beliefs and values seem to underlie the statement. Groups should write an issue statement on the bottom of the page that summarizes what the issue is about and why there is disagreement. The issue statement should not favor a position or side.
 3. Ask each group to present its issue statement to the class. Lead a discussion that focuses on similarities and differences among the group's statements and how (for any issue) beliefs, values, and knowledge affect people's perceptions. Use Teacher Page  **2**, *Issue Analysis Guide Key* as a reference.
- Ask the students which of the people in the article is right or more correct. (*Students may have opinions on this, but in actuality, none of the players is more right than the others.*)
 - Point out that all of the people involved had reasons for their positions. These reasons were based on their knowledge, beliefs, and values. Use wildlife as an example.
 - Ask students what Marvin Roberson and Anne Woiwode believed about wildlife. (*Managing for aspen lead to a high deer population, which was detrimental to society.*)
 - What did Jane Cliff believe? (*The wildlife supported by aspen adds to diversity.*)
 - What did Dan Dessecker believe? (*The aspen was necessary for ruffed grouse, woodcock, and the golden-winged warbler. High deer populations were due to mild winters and recreational feeding, not aspen stands.*)
 - Everyone had a different belief about how the aspen affected wildlife depending on how they viewed the situation. Refer back to the clearcutting example on Student Pages  **1A-C**, *Forest Management Techniques and Actions*. Ask if anyone would change their answer about whether it is positive or negative for society, economics, or the environment now that their knowledge has increased from reading the article.
 - Explain that this article is only one example of a forest management-related issue, but it is representative of why many forest management decisions and techniques become issues. (*Differing knowledge, beliefs, and values about the same choice.*)



CONCLUSION - WRITING SUMMARY

Discuss the following questions as a class. Then ask students to write a paragraph about what they learned from this lesson. It should include something about how and why conflicts arise in forest management, what types of factors influence perceptions of issues (beliefs, values, knowledge, etc.), why some management techniques are controversial, and how forest management may have positive or negative effects on the economy, environment, and society. These could be written in a journal, or written and handed in as a homework assignment.

- Look back at the ideas for managing the 10,000-acre forest you developed in the introduction. Which of these would primarily affect the environment? Economics? Society? *(Answers will vary. Environment should have to do with wildlife, pollution, erosion, and how an area looks; economics with jobs, costs, and profits from sales; society with education, recreation, and quality of life.)*
- Considering the results of Student Pages  **1A-C**, *Forest Management Techniques and Actions*, as well as other examples you're familiar with, give some examples of controversial forest management techniques and explain why they cause controversy. *(Some possibilities are clearcutting [people don't like how it looks], prescribed burning [setting a fire purposely seems destructive and dangerous], and multiple use [some uses preclude the enjoyment of others].)*
- Explain how beliefs, values, and knowledge play a role in people's perceptions. *(We favor actions that agree with our beliefs and values and tend to be against those that do not. How much we know or don't know about an issue affects our opinions. Opinions sometimes change when we have more information.)*

CAREERS

The career profile in this lesson features LindaLou Stockinger, Public Affairs Specialist for the United States Forest Service. The Career Profile is found on page 78. A careers lesson that uses this information begins on page 170.

SUMMATIVE ASSESSMENT

The questions and paragraph suggested in the Conclusion could serve as a summative assessment. Students could also be asked to search for other forestry issues in newspapers, magazines, or the Internet and prepare an issue statement similar to the one in Activity 2. To make a local connection, have students investigate a forest-related issue in your area. This could include harvesting, recreation, wildlife, or any other topic about which there is discussion relating to forests in your area of the state. Have students collect articles from the local paper, talk to players involved, or express their own opinions on the issue. Encourage students to make informed decisions when taking a position about the topic. Students could present their findings in class and follow the issue as it evolves.



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To Cut or Not to Cut? Managing Your Woodland for Wildlife. [Brochure]. Madison, WI: Wisconsin Department of Natural Resources - Bureau of Forestry. PUBL-WM-224.

Wisconsin State Forests. [Pamphlet]. (1997). Madison, WI: Wisconsin Department of Natural Resources - Bureau of Forestry. PUB-FR-034 97REV.

Young, R. A., & Giese, R. L. (1990). Introduction to Forest Science. New York: John Wiley & Sons.

RECOMMENDED RESOURCES

●●● WEBSITES ●●●

Temperate Forest Foundation

www.forestinfo.org/Discover/issues.htm

Issues related to a variety of forest topics are explained.

Wisconsin Forests at the Millennium, Wisconsin Department of Natural Resources - Division of Forestry

<http://dnr.wi.gov/forestry/assessment/WIforestsAtMillennium.htm>

Trends and Issues related to Wisconsin's forests are defined and explained.

Wisconsin Forestry Issues, Wisconsin Forestree www.uwsp.edu/cnr/cwes/forestree/issues/issues.htm

Articles on Wisconsin forestry issues that can be used with this lesson are provided.

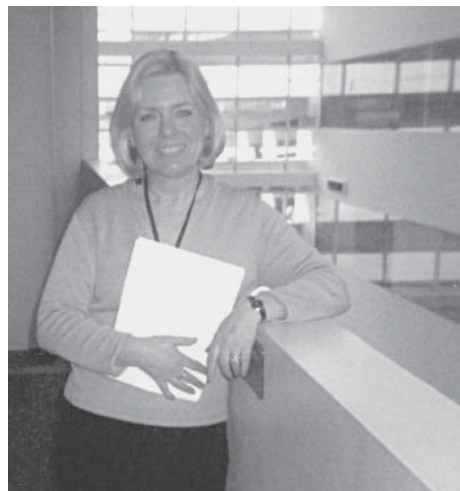
●●● BOOK ●●●

Forests: Identifying Propaganda Techniques by Robert Anderson. (Greenhaven Press, Inc. 1992.) Read position statements about topics such as forest management, logging, acid rain, humans and the rainforest written from two opposing views. Readers learn how to identify propaganda techniques used in each.

The **LEAF website** has additional Recommended Resources at www.uwsp.edu/cnr/leaf.

Additional forestry education materials are available for check-out to Wisconsin educators from the **Wisconsin Center for Environmental Education Resources Library**. Visit www.uwsp.edu/wcee/library.

LINDALOU, PUBLIC AFFAIRS SPECIALIST



LindaLou provides up-to-date information about the Forest Service.

Meet LindaLou Stockinger. She is a public affairs specialist for the United States Forest Service. Her office is in Milwaukee, Wisconsin. LindaLou helps the public get information about what the Forest Service does by sharing material on key issues with public affairs people who work at the national forests. To do this, she prepares communication plans with messages and answers to questions. When information comes from the national office, LindaLou gets it to public affairs officers and other employees in the northeastern 20 states.

LindaLou has a Bachelor of Science degree in management with minors in sociology and communication. She also has a Master of Science degree in management. Previous work experiences with other areas of the Forest Service and in a military recruiting office have given her a better understanding of the agency she works for, as well as listening skills for her job. LindaLou has been a member of several organizations, including the Society of American Foresters, National Association of Female Executives, and International Association of Business Communicators.

What does LindaLou consider her favorite part of her job? She says, "The teamwork and the fact that I am always part of something new and interesting that is happening in the organization."

If you are interested in a career like LindaLou's, she suggests exploring college programs in fields related to public relations such as English, journalism, and communication, but don't forget to consider pursuing natural resource courses too. Follow media coverage of natural resource issues, and if they interest you, this might be a career to consider.

FOREST MANAGEMENT TECHNIQUES AND ACTIONS DISCUSSION

Begin Discussion

Ask the students if there were techniques or actions on which they couldn't agree. Most likely there will be several. Ask for an example and why it was difficult to reach agreement. You can use these examples to discuss further using the points below.

During the discussion, explain that you aren't trying to convince them of a particular decision, only offering different perspectives. Encourage the students to share alternative perspectives. Try to relate your own different perspective on specific techniques or actions to the students.

Discussion Points

- Context matters:** With one of the example techniques or actions on which there was disagreement, ask how the setting of the situation would change their decision. For example, for the Christmas tree farm, what if that tree farm was the only green space left on the edge of a city? However, what if the tree farm was set within a thousand acres of Christmas trees owned by other people? Most likely, perspectives on social, economic, and environmental effects would change. For example, as the only green space, the environmental effects would be positive, but as part of a large monoculture, the environmental effects would be negative.
- Minimal information:** The students are being asked to make decisions based on very little information. Ask how many students would like to have had more information before they make a decision on a technique or action. Explain that, surprisingly perhaps, people often form opinions about issues based on very little information. Most people in the United States get the majority of their information about environmental issues from the media. These are most often short reports with very little information. It is important that as we form opinions and make decisions we seek out additional information.
- Experience and knowledge matter:** Often, disagreement comes about because of difference in experience and knowledge. Someone who has knowledge and experience with a certain management technique or action can add to the brief description that is provided. Ask if anyone has additional knowledge of any of the techniques and action and have the student(s) share that knowledge and experience. Survey the other students to see if the additional information changes their opinion on the technique or action.
- Reaching consensus:** Share with the students that consensus is a decision where everyone agrees. Discuss with them what it would take to reach consensus on one of the techniques or actions on which there was disagreement. Is it always possible to reach consensus? With differing knowledge, experience, beliefs, and values, it can be very difficult to reach consensus unless there is an intentional effort to do so. However, often we can reach consensus with some effort. The primary method of reaching consensus involves further discussion and sharing of information. Having a shared knowledge of the technique or action will help to reach consensus.

ISSUE ANALYSIS GUIDE KEY




Who is involved?	What group or type of organization do they represent?	Beliefs?	Factors affecting beliefs – social, economic, ecologic, other	Values?
Marvin Roberson	Forest Policy Specialist	There is too much aspen forest in the Upper Great Lakes region. White-tailed deer numbers are too high.	Ecologic	Native white pine forests
Anne Woiwode	Sierra Club	High deer population is a result of aspen management. The results of a high deer population are bad for society.	Ecologic, Social	Re-establishment of white pine and northern hardwood forests
Jane Cliff	Forest Service	The aspen forests contribute to biodiversity. Present guidelines address environmental and social concerns.	Ecologic, Social	Sustainable forestry, diversity
Dan Dessecker	Ruffed Grouse Society	Aspen forests are a unique resource in the Upper Great Lakes region. Aspen forests support many wildlife species (some endangered). The deer population is not just due to Forest Service management of aspen.	Ecologic	Wildlife

ISSUE STATEMENT TO SUMMARIZE THE CONFLICT: (Should include what the issue is about and why there is disagreement.)




Clearcutting to promote the growth of aspen in the Upper Great Lakes region is controversial because all people do not agree upon the results and benefits.

FOREST MANAGEMENT TECHNIQUES AND ACTIONS




1. Read the following descriptions of forestry techniques and actions. Under the "You" column for "Society" place a "+" if you think the technique or action has a positive effect on society and a "-" if you think the effect is negative. Do the same for "Economics" and "Environment."
2. Team up with a partner and discuss your answers, making a joint decision for the "Partner" column.
3. Use the same process with a larger group (or the entire class) for the "Group" column.

TECHNIQUE OR ACTION	EFFECTS ON...								
	SOCIETY (Education, recreation, quality of life, etc.)			ECONOMICS (Jobs, profits, costs, etc.)			ENVIRONMENT (Wildlife, pollution, erosion, etc.)		
	You	Partner	Group	You	Partner	Group	You	Partner	Group
The Jones family has a 40-acre Christmas tree farm. Their property is managed for that one purpose. 									
A state forest in Northern Wisconsin is being managed for trees to harvest, wildlife, recreation, and water quality. The goal is to manage the forest in a way that sustains each of these for future generations.									
All of the sugar maples on the Smith property are approximately 60 years old. When they are mature, the family will hire a logger to cut them all and replant seedlings in the same area. This is an example of even-aged management – trees are maintained at about the same size and age. 									
Twenty acres of 50-year-old aspen are cut at one time. This is an example of clearcutting – the removal of all trees from an area at the same time.									
A camper whose campfire got out of control started a fire in the Nicolet National forest in Northern Wisconsin. It was allowed to burn. 									

FOREST MANAGEMENT TECHNIQUES AND ACTIONS

TECHNIQUE OR ACTION	EFFECTS ON...								
	SOCIETY			ECONOMICS			ENVIRONMENT		
	You	Partner	Group	You	Partner	Group	You	Partner	Group
<p>Mr. Wild's oak and hickory forest contains trees of different ages. Soon he will harvest the older trees. Younger trees will be left to grow and new seedlings will sprout in the openings created. This is an example of all-aged management – the forest is maintained with trees of different ages and sizes.</p> 									
<p>The Sunshine Company regularly does improvement cutting on its property to remove unhealthy trees. The high-quality trees are left to grow without excess competition from poor-quality trees. This is an example of timber stand improvement (TSI), which involves removing “weed” trees and poor quality trees to allow more space for better tree growth.</p>									
<p>Lightning started a fire in the Nicolet National Forest in Northern Wisconsin. It was allowed to burn.</p> 									
<p>A prescribed fire was done in a dense forest in Western Wisconsin. The goal was to reduce the amount of brush in the understory. Prescribed fires are purposely set. These controlled fires reduce debris, control pests, encourage the growth for certain species, etc.</p>									
<p>When the Smiths had sugar maple harvested on their property, the loggers left trees growing along a nearby stream to protect the water. This is a type of Best Management Practice (BMP). BMPs are techniques for harvesting timber, building roads, and planting harvested areas in ways that protect water quality.</p> 									

FOREST MANAGEMENT TECHNIQUES AND ACTIONS

TECHNIQUE OR ACTION	EFFECTS ON...									
	SOCIETY			ECONOMICS			ENVIRONMENT			
	You	Partner	Group	You	Partner	Group	You	Partner	Group	
<p>Improved technology allows nearly every part of a tree to be used in some way. Less waste is left behind, but this also means less cover for wildlife and fewer nutrients cycle back to the soil.</p> 										
<p>More motorized recreation (e.g., snowmobiles, ATVs, and dirt bikes) is being allowed on public forest land.</p>										
<p>Hoffman Developers built a subdivision in a forested area in Southeast Wisconsin. The homes are surrounded by trees, and roads had to be built to get to them. This divided the forest into many small pieces.</p> 										
<p>A bill was proposed in the state legislature that would allow businesses and billboard owners to cut trees that block the view of that business or sign.</p>										
<p>Some foresters leave trail corridors, forest edges, and grassy openings when they set harvest boundaries. This may mean fewer trees are harvested, or that the harvest must be more carefully planned and undertaken.</p>										
<p>To protect archaeological sites and artifacts, an area may have to be excluded from forestry practices, or these practices will have to be carried out when the ground is frozen.</p> 										

ANTICLEAR-CUTTING LAWSUIT CALLED THREAT TO DIVERSITY

By Kurt Krueger, News-Review Editor

December 26, 2001
(Reprinted with Permission)

An environmental group has filed a lawsuit to block the logging of aspen on the Chequamegon-Nicolet and six other national forests in Wisconsin, Michigan and Minnesota.

The suit springs from a single timber sale on the Ottawa National Forest, but challenges the Forest Service management of aspen – and clear-cutting – across the three-state region.

It alleges that Forest Service decisions promoting aspen clear-cutting are holding back restoration of native white pine forests and maintaining white-tailed deer numbers at levels that cause property damage and environmental impacts.

The claims are being refuted by the Forest Service and conservation groups such as the Ruffed Grouse Society, who say aspen forests are a unique resource that is important to wildlife and biological diversity.

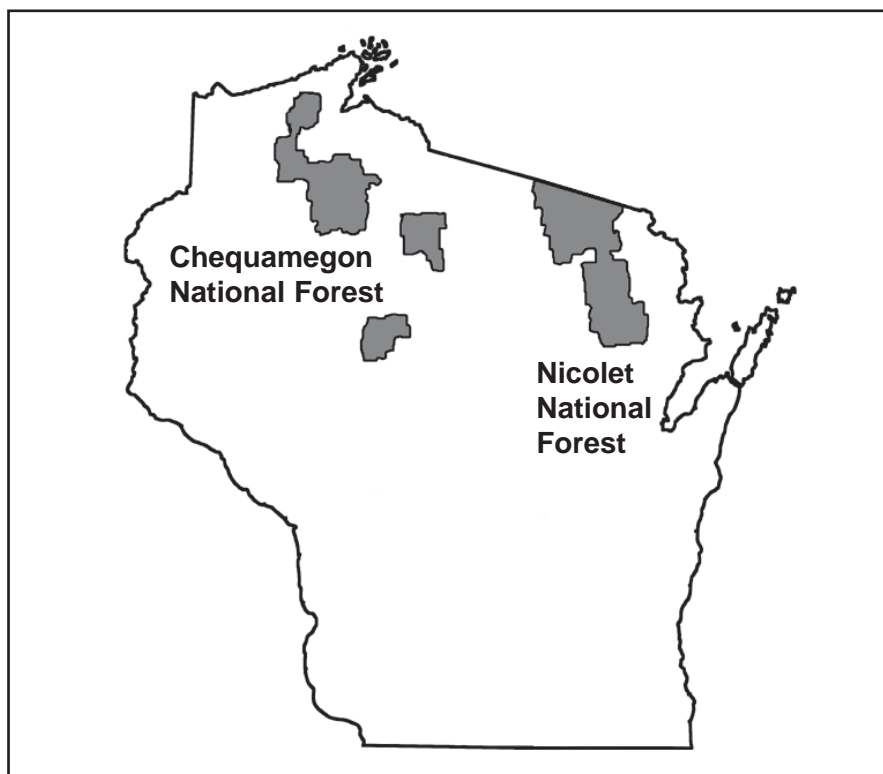
The lawsuit was filed by Leigh Haynie, an environmental attorney in Minnesota, and included two individual plaintiffs, Marvin Roberson, forest policy specialist, and Anne Woiwode, director of the Sierra Club's Mackinac Chapter.

"Forest Service timber management is drastically altering the forests of the Upper Great Lakes from their natural condition, without consideration of the effects on the natural environment, nor whether these changes can be sustained," said Roberson.

Roberson notes that aspen forests, managed primarily through clear-cutting, are being maintained at 10 times their natural levels on Forest Service lands in the three states, despite evidence of widespread environmental consequences.

The lawsuit asks the court to direct the agency to block additional aspen timber sales on Forest Service lands until they complete a regional analysis of environmental impacts from this management direction.

The Ottawa Aspen Sale Lawsuit was filed on behalf of the Mackinac Chapter of the Sierra Club in the U.S. District Court-Western District of Michigan December 4 and assigned to Judge David McKeague.



ANTICLEAR-CUTTING LAWSUIT CALLED THREAT TO DIVERSITY (CONTINUED)

GUIDELINES IN PLACE

Jane Cliff, of the Forest Service's regional office in Milwaukee, said the agency already considers the environment before approving timber cuts.

"There are many guidelines in place that address environmental and other public concerns about clear-cutting," said Cliff. "For instance, clearcuts can be no larger than 40 acres in size and they cannot be done next to other recently harvested stands."

Cliff said each forest has a land management plan, developed with public input. She said decisions about which tree species to encourage vary from place to place, depending on biological factors such as soil types, watershed protection, visual quality and the desires of user groups.

"We manage for sustainable forest ecosystems," said Cliff. "The type of trees, age of trees and the wildlife they support are all part of diversity."

Cliff said early successional forest types, such as aspen, support different species of birds and wildlife than hardwoods and other longer-lived tree types.

THREAT TO DIVERSITY

The lawsuit is a serious threat to forest wildlife and regional biological diversity, according



Aspen Forest

to Dan Dessecker, senior wildlife biologist for the Ruffed Grouse Society.

"In the eastern United States, the Great Lakes states offer the only opportunity to protect this unique resource as functional aspen forest communities are all but nonexistent outside of Michigan, Minnesota and Wisconsin," said Dessecker, who lives in Rice Lake.

Since the 1960s, millions of acres of aspen forest have been lost in the Great Lakes region. Most of that acreage has converted to forests dominated by maple and other northern hardwoods.

"Northern hardwood forests are already far more abundant in the northern Great Lakes region than are aspen forests (31% northern hardwoods vs. 22% aspen), and reductions in the conservation of aspen forests would only exacerbate the continuing loss of our aspen

forests," said Dessecker.

He said, not surprisingly, wildlife associated with aspen forest habitats is declining as well. Ruffed grouse and American woodcock, two game species of immense importance to 500,000 sportsmen and women each year, thrive in aspen forests.

Aspen forests also support endangered species such as the golden-winged warbler, the most imperiled songbird in the eastern United States with the exception of the federally endangered Kirtland's warbler.

"Research clearly shows that this beautiful, little bird prefers to nest in very young aspen forests (one to six years of age) that have recently been re-grown through clear-cutting," he said.

ANTICLEAR-CUTTING LAWSUIT CALLED THREAT TO DIVERSITY (CONTINUED)

Dessecker said the national forests of Wisconsin and Minnesota lie at the “very heart of the golden-winged warbler’s breeding range.”

“Any significant reduction in the conservation of aspen forest habitats in this region would be devastating to the golden-winged warbler,” he said.

Dessecker also discounts the assertion that aspen forests are the cause of high deer densities, saying deer are “habitat generalists” that survive quite well across a broad range of habitat conditions.

“White-tailed deer populations have increased over the past several decades while aspen forests have become less abundant on the landscape,” Dessecker said. “Current deer population trends are due to recent mild winters and an increase in recreational deer feeding, which have worked in concert to dramatically reduce winter mortality.”

Dessecker said the Sierra Club’s “extreme proposal” only complicates efforts to protect and enhance the national forests.

“It is hardly surprising that an organization with the stated goal of eliminating forest management on all federal lands would promote this type of ill-conceived proposal,” he said.

LAWSUIT CLAIMS

The lawsuit claims aspen clear-cutting is preventing the re-establishment of white pine and northern hardwoods forests that were lost during the lumber baron era at the turn of the last century.

Sierra Club officials say overcutting of aspen contributes to a massive overabundance of deer habitat, contributing to 65,000 deer/car collisions per year in Michigan alone, escalated threats of bovine tuberculosis exposure for livestock, and extensive damage to rare plant species as well as agricultural crops.

To date the Forest Service has refused Michigan Sierra Club’s requests to initiate a region wide analysis of the environmental effects of its aspen management activities.

Sierra Club officials say the federal agency has never considered the cumulative effect of its policy of holding back forest succession on a massive scale across the upper Great

Lakes states, although other environmental issues have received region wide analysis.

“The Forest Service is determining the future of our region’s national forests by promoting excessive aspen clear-cutting without considering the tradeoffs,” said Anne Woiwode.

Cliff said clear-cutting is a standard, well-researched silvicultural tool for certain vegetative applications.

“You don’t plant aspen trees. Clearcutting regenerates the young trees through suckering, where saplings emerge from roots and stumps,” Cliff said. “Clear-cutting is intended to mimic fires and storms, after which trees such as aspen seed in naturally.”



Golden-winged Warbler

ISSUE ANALYSIS GUIDE

Who is involved?	What group or type of organization do they represent?	Beliefs?	Factors affecting beliefs – social, economic, ecologic, other	Values?

ISSUE STATEMENT TO SUMMARIZE THE CONFLICT: (Should include what the issue is about and why there is disagreement.)