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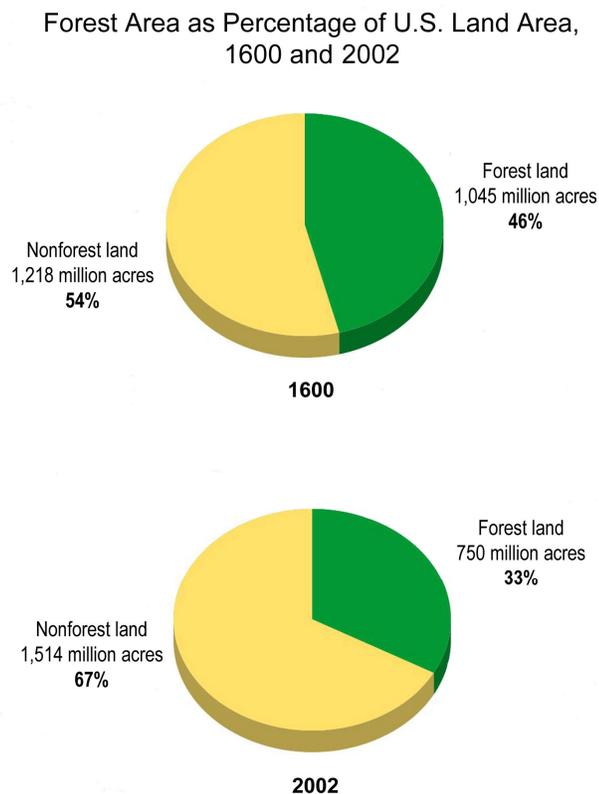
Essay: Understanding Private Forests and Family-Owned Forests

Introduction

Many people tend to think of forested lands in the United States as National Parks, National Forests, or State Forests. Yet, a majority of forested lands are actually privately owned and provide numerous values to our lives. These private lands provide a variety of benefits to the public, such as: pure and plentiful water, clean air, wildlife habitat, recreation opportunities, and a renewable supply of wood and fiber. These benefits are often referred to as **ecosystem services**.

Forestlands covered about 1 billion acres, or almost half, of the U.S. land area in 1600 (see graph 1a). Today we have about 750 million acres of forestland, or about one third of the U.S. (see graph 1b). That means that about 70% of the forestlands of 1600 remains forestland today. Roughly 350 million acres have been converted to other uses since 1600, primarily for agriculture.

In the 1800s, growth in population and the need for agricultural land put increasing pressure on forests in the U.S. The nation's forestland area decreased dramatically. Then, in the 1900s with improvements in farm technology and productivity, forestland area started to stabilize. Today the nation's forestland is about the same size as it was in 1920 due to this stabilization even though population has continued to rise.



Source: *Forest Resources of the U.S., 2002*. GTR-NC-241, USDA Forest Service, 2004

Figure 1: Source - *Forest Resources of the U.S., 2002*. GTR-NC-241, USDA Forest Service, 2004.

History of Land Ownership in the U.S.

Several events occurred in the early history of the U.S. that helped shape landownership patterns and property rights. Prior to the American Revolution, land was given to individuals and families by the British. This land might then be sold or deeded to other individuals. After winning the Revolutionary War, the newly formed United States government began to obtain lands throughout North America. Through the Northwest Ordinance (1787), the Louisiana

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Purchase (1803), the Florida Purchase (1819), and other such land purchases, the new government gained public lands faster than they could be sold or given away. Consequently the U.S. found itself holding more land than it knew what to do with. The government decided to allow these lands to be sold to private individuals in the hope that they would use them to generate wealth and therefore benefit the entire nation. The U.S. government wanted to distribute as much of the public lands as possible as quickly as possible. This approach continued for more than a century.

During the Civil War the Homestead Act of 1862 and the Morrill Act of 1862 were passed. Both were created to put more land into the hands of private land owners. After the Civil War ended in 1865, more people began moving westward.



Figure 2: U.S. western railway land grants. The shaded areas were granted to railroad companies by the U.S. federal government.

Image provided by: Harvard University Graduate School of Design, Frances Loeb Library from their Images of America: Lantern Slide Collection.

During the 1800s, about 75% of the continental United States was sold or granted to homesteaders, war veterans, local governments, and corporations. Between 1850 and 1870, 10% of land in the lower 48 states was set aside by Congress to help finance and operate the transcontinental railroad and telegraph systems which were considered essential for the growth of the young country. Often the land granted to railroads was sold by the railroad company in order to help pay the cost of railroad construction. The creation of the rail system enabled more rapid western settlement. In the end, four out of the five transcontinental railroads were built with help of these land grants offered by the federal government.

In the latter part of the nineteenth century, many people started to think about conserving natural resources. They began to realize that conserving resources was necessary to continue to provide the timber, range, and water needed to maintain growing populations and new communities. Policies of giving away land began to change and the U.S. started to create public forestlands. New forest management ideas and practices were developed. Private landowners began to focus on planting and nurturing the private forestlands they owned. In the early 1900s, various acts were passed to increase funding to manage forestlands and state offices (or departments) were set up to help guide forest management practices. By the early 1920's thirty-one states and Hawaii had set up forestry departments. In 1924, the Clarke-McNary Act was the first law passed that offered federal assistance to small forestland owners.

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What Private Forests Provide

Over the years, growing populations and global economies have created increased demands for forest products (lumber, paper, siding, etc). This has increased pressure on private forestland owners to harvest their timber. For example, there are about 749 million acres of forest in the United States, almost 71% of that (or 530 million acres) is owned by private landowners or companies. These private lands provide the majority of the country's forest products and services. It is estimated that 89% of the timber harvested in the United States comes from private lands. This harvested timber is used to make thousands of products, from lumber to build houses, to tissues, napkins, and paper towels. About 30% of our nation's timber harvest comes from industrial lands owned by forest products companies and 59% of the timber harvest comes from non-industrial private forestlands owned by individuals, group associations, and Native American tribes. Only about 11% of the timber harvest in the U.S. comes from our national or state forestlands, though they make up almost 30% of the forestland base.

U.S. Forest Ownership and Timber Harvest

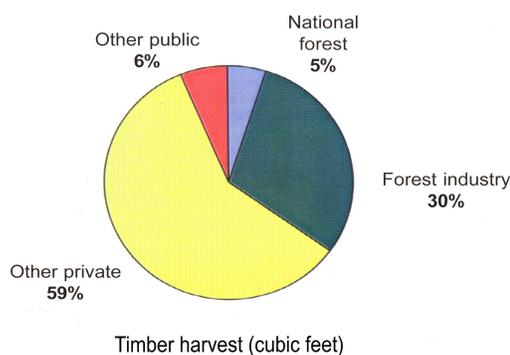
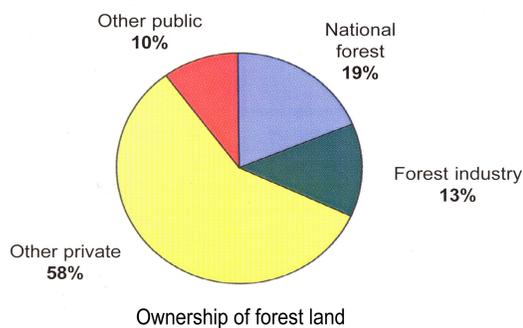


Figure 3: In this pie chart:

- **“Other Public”** refers to lands owned and operated by the Bureau of Land Management, state Departments of Natural Resources, or state forestry departments.
- **“National Forests”** are those forestlands managed by the U.S. Forest Service.
- **“Forest Industry”** refers to lands owned and operated by companies that produce forest products and large investment groups that own and manage forests.
- **“Other Private”** refers to those lands owned by private individual owners, such as family-run tree farms, individuals who own forestlands around their homes, and individuals who have invested in forests as they plan for retirement, their children's and grandchildren's education, and many other reasons.

Private forestlands provide financial value to the U.S. economy. The trees on private forestlands can produce income to the owners who manage and care for that land. The selling of those trees also produces income to millions of people employed in the many steps involved in producing timber products. People are employed to cut, transport, manufacture, sell and distribute wood and wood products that we use everyday. Products like cardboard, furniture, paper, pencils, picture frames, desks, etc. often come from trees on private forestlands.

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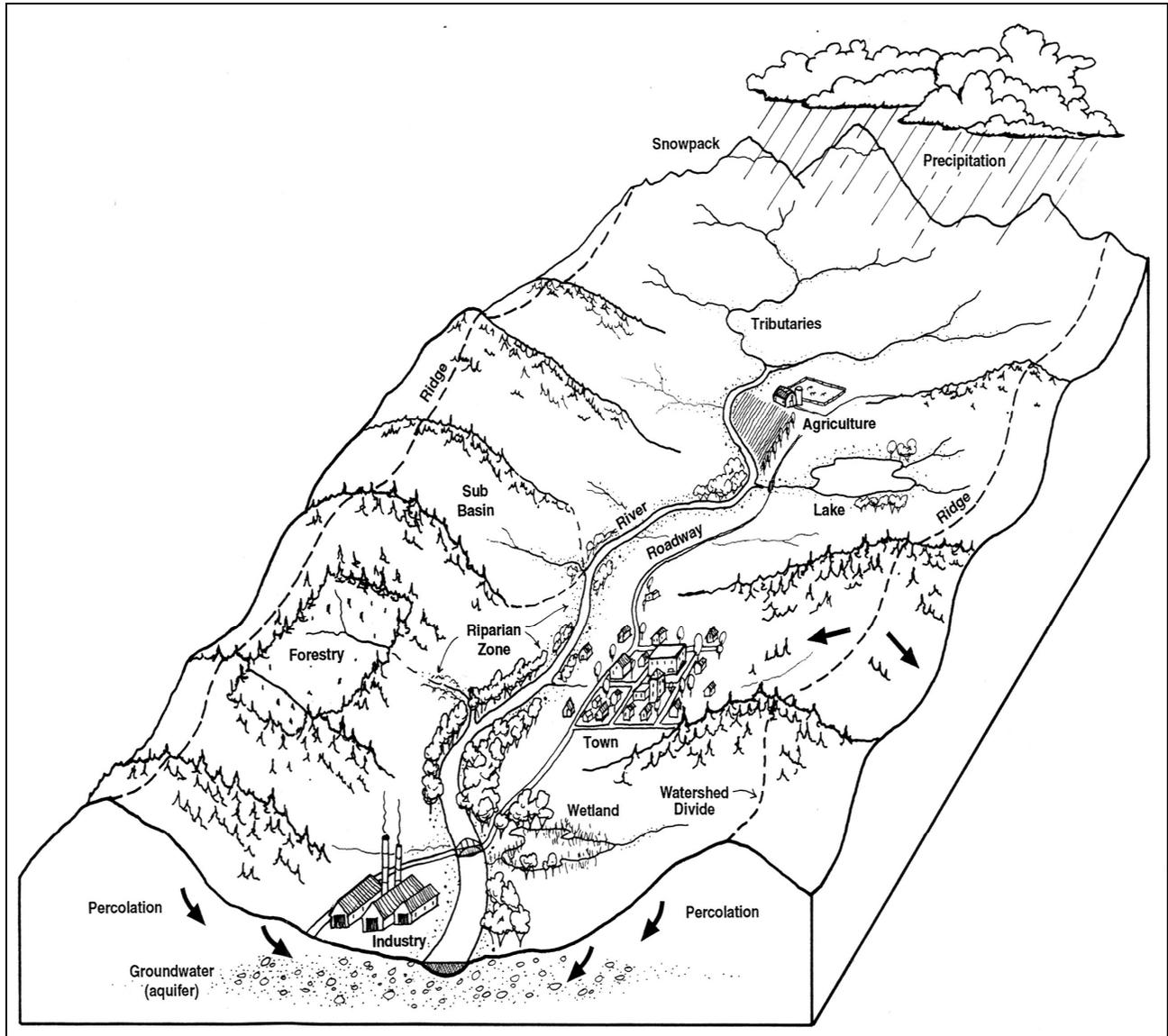


Figure 5: How watersheds work. Water travels over a landscape and eventually ends in rivers or streams. Healthy watersheds provide water for drinking, irrigation, and everyday human use. They also provide food, shelter, and water for wildlife. Image provided by Lane Council of Governments, <http://www.lcoq.org/lgs/natres.html>.

Private forestlands do more than just provide us with timber products. They are often close to cities and help protect the main **watersheds** in those areas. Forests are vital to watershed health. A watershed is an area of land from which water drains toward a common spot into a natural basin (such as a lake, stream, and ocean). Watersheds cover the entire Earth's surface, and no matter where you live, there is a watershed in your area. Two-thirds of the freshwater supply in the U.S. originates in forests. Growing cities put many private forestlands in danger of becoming **developed areas**. A developed area is an area that has houses or commercial structures built on it. Private forestland owners may choose to divide and sell portions of their

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property to accomplish a personal goal or out of necessity. Usually such forestlands are developed, and new threats arise to the water quality. These forestlands that had helped protect watersheds, once developed, can cause new threats such as run-off from asphalt driveways and parking lots or heavily fertilized lawns. Run-off can lead to erosion which can add soil deposits in streams and rivers. Fertilizers used on lawns can seep into the ground water or run-off into streams; adding **contaminates** to drinking water sources. Contaminates are those things that make our water impure or unclean. One such contaminate often resulting from fertilizers are nitrates, which may cause health problems if consumed in large amounts or regularly.

Privately owned forests also provide habitat for wildlife. Nearly 80% of this nation's wildlife habitat is spread over privately owned land. About 393 million acres of this privately owned land is forest land. Therefore citizens who own private forests play an important role in managing and protecting our nation's wildlife. If these lands are divided and developed, wildlife that occupies these areas can lose food sources, access to clean drinking water, and the freedom to move safely from place to place.

Private forestlands also provide a place for recreation and hunting for many people. Private forestlands may be made available to private hunting clubs, or they may allow hunting on their land as long as the hunter seeks permission from the owner. Private forestlands also provide areas for recreational activities, including hiking, snowmobiling, cross-country skiing, snowshoeing, bird watching, and camping.

Variety of Private Forests

Some private forest properties are owned by one person, others by several people or a family. Larger private forestlands may be owned by a company or group of investors. Many of them take great pride in owning and caring for their forestland, however, there is a wide diversity in the forests and in their owners. Some own 5 acres, some own 500 acres and still others own 25,000 acres or more. Some are interested in growing trees to make paper, some to make lumber or telephone poles and some to harvest Christmas trees. Others are more interested in using their property for hunting or other recreational activities, and still others are interested in using their land like a park or a natural area. The result of all of these variations has created the diverse mix of ever changing forest we see across the country today.

Because there are so many different reasons for owning forestland and so many different types of forests, there is no one management method appropriate to all ownership. The kind of trees to grow and whether to or how often to harvest them, the kind of wildlife to encourage, or the way to handle pest problems can vary on from private forest to private forest.

To manage their forests, private landowners commonly seek professional assistance from a variety of sources including lawyers, accountants, bankers, and of course, professional foresters. Much of the advice forestland owners receive comes from professional forestry consultants who conduct inventories, write management plans, and oversee harvesting and planting. But many landowners, especially those with smaller acreages, also use government foresters for advice on how to maintain healthy forestlands. Because private forest lands are so important, the state forestry or natural resources department in many states offer both technical (such as writing management plans) and financial assistance (such as tax deductions and cost-share programs) to private landowners to help them manage their lands.

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Some of the funding for these efforts comes from the State and Private Forestry branch of the USDA Forest Service. One such program is the “Forest Stewardship Program,” which is designed to help landowners develop forest management plans for their land. The Forest Stewardship Management Plan provides the landowner with forest management suggestions to help them meet their goals, while at the same time keeping the ecosystem healthy. Another program is the Forest Legacy Program, which helps protect private forestlands from being converted to non-forest uses. Private forestland owners may also seek to become Certified Tree Farms, in which case they would gain assistance in creating a forest management plan from a volunteer forester of the American Tree Farm System. No matter which management plan or practice owners choose to use, the management practices on private forestlands impact the social, economic, and natural environment for everyone.

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Worksheet 1: Family Owned Forest Facts

Name: _____

Table 1: Area and number of family owned forests in the United States* by size of forest landholdings, 1993.

Size of Forest Landholdings (Acres)	Area in Acres (thousands)	Area (percent)	Number of Ownerships (thousands)	Ownerships (percent)
1-9	16,509		5,603	60.3
10-49	57,342	24.2	2,534	
50-99	42,729	18.0	642	6.9
100-499	78,461	33.1	472	
500-999	17,532		29	0.3
1000-4999	17,797	7.5	13	0.1
5000+	6,872	2.9	3	<0.1
Total	237,242	100.0	9,296	100.0

* Numbers above are for the continental U.S. and exclude Alaska and Hawaii.

Table 2: Area and number of family owned forests in the United States* by size of forest landholdings, 2004.

Size of Forest Landholdings (Acres)	Area in Acres (thousands)	Area (percent)	Number of Ownerships (thousands)	Ownerships (percent)
1-9	20,069	7.7	6,570	
10-49	61,681	23.6	2,970	27.8
50-99	41,815	16.0	632	
100-499	82,747		473	4.4
500-999	20,349	7.8	32	0.3
1000-4999	24,724	9.4	14	0.1
5000+	10,254		1	<0.1
Total	261,639	100.0	10,692	100.0

* Numbers above are for the continental U.S. and exclude Alaska and Hawaii.

These tables come from the USDA Forest Service, National Woodland Owner Survey and are draft figures. Designed for review purposes.

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Worksheet 1: Family Owned Forest Facts (Continued)

- 1) Fill in the missing percentages above and round your answers to the nearest tenth. Use the information in the “Area in Acres” and “Total” “Area in Acres” boxes to calculate area percentages in the blank “Area (percent)” box. Use the information in the “Number of Ownerships” and “Total” “Number of Ownerships” boxes to calculate the percentages in the blank “Ownership (percent)” boxes.
- 2) Using the information above what percent of landowners owned 1-9 acres of land...
 - in 1993?
 - in 2004?
- 3) What is the percentage of land owned (area) in the 1-9 acre category...
 - in 1993?
 - in 2004?
- 4) Using the answers to question 2 and 3, what does this tell you about the majority of private forestland owners in the United States for 2004?
- 5) Has there been an increase or decrease in the percent of landowners owning land in the U.S. in the 1-9 acre category since 1993?
- 6) When looking at the Area Percentages, which landholdings category (1-9, 10-49, etc) contains the greatest land area (percent)...
 - in 1993?
 - in 2004?
- 7) What percent of the ownership owned this landholdings category you identified in question 6...
 - in 1993?
 - in 2004?
- 8) Has there been an increase or decrease in the percent of landowners owning land in the U.S. in the 100-499 acre category since 1993?
- 9) When comparing the table from 1993 to 2004 what appears to be the trend? Do more people own smaller portions of land or larger portions of land?
- 10) After answering number 9, what are some possible reasons the trend is going in that direction?

(Student Page – Day 1 Assignment)

Worksheet 2: Keywords

Read the essay entitled "[Understanding Private Forests & Family-Owned Forests.](#)" Find 6 new words (they can include words that have been defined in the essay for you). Write each new word in the "Word" column. Look the word up in the dictionary or online and write the actual definition in the "Dictionary" column. Then propose your own definition of the new word in a way that makes the most sense to you and that explains how the word was used in the essay. Write this definition in the "You Define" column.

Word	Dictionary	You Define

(Student Page – Day 2 Activity)

Worksheet 3: Reasons for Owning a Family Owned Forest

Table 1: Area and number of family owned forests in the United States* by reason for owning forest land, **2006**. The numbers include landowners who ranked each objective as very important (1) or important (2) on a seven-point scale where 1 is very important and 7 is least important.

Reason	Area in Acres (thousands)	Area (percent)	Number of Ownerships (thousands)	Ownership (percent)
Aesthetic	158,447	63.6	7,152	70.2
Nature Protection	128,198	51.5	5,494	53.9
Land Investment	116,707	46.9	3,807	37.4
Part of home or cabin **	127,817	51.3	6,609	64.9
Part of farm	100,394	40.3	2,809	27.6
Privacy	134,039	53.8	6,349	62.3
Family Legacy	148,982	59.8	4,919	48.3
Non-timber forest products	25,014	10.0	756	7.4
Firewood production	37,139	14.9	1,293	12.7
Timber Production	78,085	31.4	1,020	10.0
Hunting or Fishing	108,556	43.6	2,645	26.0
Other Recreation	84,107	33.8	2,912	28.6
No Answer	2,906	1.2	119	1.2

* Numbers above are for the continental U.S. and exclude interior Alaska, Hawaii, Nevada, western Texas, and western Oklahoma.

** Includes primary and secondary residences.

These tables come from the USDA Forest Service, National Woodland Owner Survey and are draft figures. Designed for review purposes only.

(Student Page – Day 2 Activity – Worksheet 3 con't)

Worksheet 3: Reasons for owning Family Owned Forest

- 1) Create a bar graph for 2006 showing the reason for owning land compared to the amount of land owned for that reason.
- 2) Create a second bar graph for 2006 showing the reason for owning land compared to the percentage of owners owning land for that reason.
- 3) Using the worksheet 3 chart and your graphs, what are the top three reasons that people gave for owning family owned forests in 2006?
- 4) Using the worksheet 3 chart and your graph, what are the three reasons given that had the largest amounts of forestland (acres in thousands) in 2006?
- 5) Were you surprised by these graphs? Would you like own private forestland? Why?
- 6) A similar survey was given in 1993; however, forestland owners were only given the following choices: aesthetic, land investment, part of farm or home, family legacy, timber production, recreation, and no answer. What “reason” choice changes were made to the 2006 survey? Why do you think they might have added these new options?

(Student Page - Day 3 Activity)

Worksheet 4

Family Forest Story: “Tree Farming” in the U.S.

The term “**tree farming**” came about to help the public understand the purposeful management of growing of trees for the long term. The public understood the word farming to mean continual production of goods/crops year after year. Farming was also associated with the idea of good land stewardship, or caring for the land to keep it fertile and producing. By linking the term “farming” with trees, people understood that tree farmers grew crops of trees and needed to keep forested lands productive over time. Tree farming implies commitment to the land and was very different to ideas the public had in the 19th century.

While the term “tree farming” may be used by any forestland owner to describe their practice of growing timber, it is also a term used by the American Tree Farm System (ATFS). The American Tree Farm System offers a certification program to forestland owners. A Certified Tree Farm is a privately owned forest dedicated to producing renewable and sustainable crops of forest products while maintaining a specific set of standards. The nation’s first official ATFS certified Tree Farm was dedicated on June 12, 1941 near Montesano, Washington when the Weyerhaeuser Company dedicated 120,000 acres of company land as the Clemons Tree Farm. And a few years later the American Tree Farm System began increasing their membership by helping forestland owners create management plans for their land. Today about 73,000 certified forests with about 29 million acres of land in 46 states are enrolled in the voluntary certification program offered by the American Tree Farm System.

Outreach and education are central to private forestland programs today. American Tree Farm System programs work to promote the growing of renewable forest resources on private lands and to increase public understanding of all the benefits of maintaining healthy and productive forests. State forestry agencies provide a variety of assistance to private forest owners, as well. They assist private forest owners to develop and implement forest management plans to deal with insect and disease outbreaks. They also help private forest owners sign up for various financial assistance programs offered by the government. The Association of Consulting Foresters helps educate and assist forestland owners in good forest **stewardship**. Stewardship is the wise management and responsible use of forest resources. In addition, the Association of Consulting Foresters helps forestland owners understand the latest legislative issues that impact private forestry, such as taxation, private property rights, and the regulations associated with the Wetlands, Clean Water, and Endangered Species Acts. State Forestry Associations exist in numerous states throughout the country. These organizations work to promote good forest stewardship, as well.

The Greden Farm

One example of a private forest is the Ponderosa, the Greden Tree Farm in Altura, Minnesota owned by Larry Greden and his family. Larry's great grandfather, Frank, originally settled on the property in Read's Landing in 1860. In 1866, Frank moved his family to the current 1,000-acre property. Family legend has it that Frank was fearless. He was the only person to move dead bodies when diphtheria hit the community. And his daughter-in-law fed the outlaw, Jesse James. Peter (Frank's son) was known as a horse trader who almost lost the farm a few times. During the Great Depression, Leonard (Frank's grandson) cut branches to feed leaves to the cows and used wood from the land for fuel.

(Student Page - Day 3 Activity con't)

The Greden's Tree Farm is also a dairy farm, Greden's Ponderosa Dairy, with 600 head of cattle, and approximately 40 percent of the farm is woodland. Now, four generations of Greden's live on the farm that produces dairy products, timber, Christmas trees, and materials for a log cabin business. The Greden family takes full advantage of the recreation available right outside their back door – making the farm a place of pleasure, as well as work.

Larry makes forest management a priority on his property. In 1970, he planted thousands of trees and believes everything he does on the land must improve it for future generations. The family manages the Tree Farm for red oak, white pine, white and blue spruce and black walnut. The Gredens plan to return 100 acres of land back to prairie grass and prairie flowers.

American Tree Farm System Standards for Tree Farm Certification

The American Tree Farm System has a set of standards that any private forestland owner must meet in order for their land to become a Certified Tree Farm. The certification process is voluntary and the landowner must have a minimum of 10 acres of forestland to be considered for Tree Farm Certification. A Certified Tree Farm must maintain standards set by the American Forest Foundation and can become decertified if it fails to continue to meet the standards. These standards have been revised several times since 1941 when the program officially began. The most recent set of standards were implemented on July 1, 2004. Forestland owners wishing to enter the American Tree Farm System have to meet the revised set of Standards of Sustainability for Forest Certification (Standards).



Image 1: Tree farm owners in West Virginia around 1970. Sign posted on fence beside them reads "TREE FARM - Member, American Tree Farm System," signaling that they own a certified tree farm.

The 9 Standards for Tree Farm Certification for 2004-2008:

Standard 1: Ensuring Sustainable Forests – the forestland owner must promote the growing of renewable forest resources on private lands while protecting environmental benefits and increasing public understanding of all benefits of productive forestry. An accredited Tree Farm Inspector must inspect the land to see that it meets sustainability standards.

Standard 2: Compliance With Laws - Forest management of the private land must obey all relevant federal, state and local regulations and ordinances.

(Student Page - Day 3 Activity con't)

Standard 3: Commitment to Practicing Sustainable Forestry – Private forest owners must demonstrate their commitment to sustainability by developing and implementing a long-term forest management plan.

Standard 4: Reforestation - Forest owners must replant desirable species of trees, compatible with the ecosystems of the region, on harvested areas and unused areas where tree-growing is the intended land use.

Standard 5: Air, Water and Soil Protection - Forest owners must follow State Forestry Best Management Practices and comply with all relevant forest practices act(s) and ordinances in their state. The forestry practices on the land should maintain or enhance the environment, including air, water, soil, and site quality.

Standard 6: Fish, Wildlife and Biodiversity - Forest management activities should contribute to the conservation of biodiversity and maintain or enhance habitat for native fish, wildlife, and plant species on the land to be certified.

Standard 7: Forest Aesthetics - Forest management practices should minimize negative visual impacts of forest activities. Landowners must manage their forest with this concern in mind.

Standard 8: Protect Special Sites - Special sites are managed in a way that recognizes their unique characteristics. Forest management practices must recognize historical, biological, archaeological, cultural, and geological sites of special interest.

Standard 9: Wood Fiber Harvest and Other Operations - Wood fiber harvests and other forest operations are conducted in accordance with the management plan and with sensitivity to other forest values (e.g., water quality, regeneration, wildlife habitat, biodiversity, special sites, etc.).

(Student Page - Day 3 Activity Directions)

Worksheet 4 - Interview: Student Directions

Interview a Tree Farmer or Private Forestland Owner

Imagine you are the town historian at the local town library and your job is to write a Forestland History essay on a local tree farm in your state. In order to complete this task you will need to interview a local Tree Farmer or Private Forestland Owner in your area. After conducting this interview you will then write your short historical essay on this person and their land. If you prefer to create a documentary film, or record an oral history, you may also do that.

What information should you gather? You should pick 8 of the following questions you would like to use for your interview. Then add 2 or 3 of your own additional questions (that are of interest to you or that you would like answered).

- How long have you or family owned this land?
- What do you do with this land (use it for timber? development? recreation? etc)
- Do you know the land use history of this property? What did the previous owners do with this land? Or what did your ancestors do with this land?
- Who owned this forest before you?
- How do you maintain the forest land? (Do you get help from a state forester, your State Forestry Association, or your local Tree Farm Association?)
- How are your actions creating a sustainable forest?
- What is your biggest concern with regards to your land (i.e. wildfire, insects, invasive species, Endangered Species Act, trespassers, taxes)? Why is that a concern?
- What do you hope for the future of your land? (Do you want it to be passed down to your children? Do you hope to sell it?)
- Who makes the decisions for managing this land?

To find a local Tree Farmer or Private Forestland Owner in your area contact:

- The head of the state committee of the American Tree Farm System programs in your state at <http://www.treefarmssystem.org/cms/pages/35.html>.
- The Society of American Foresters' Certified Forester Program to "search online" for a forester who could help you locate a local forestland owner, <http://www.safnet.org/certifiedforester>.
- The Association of Consulting Foresters, <http://www.acf-foresters.org>, may be able to help you find a local forestland owner in your area.
- Your Local State Forester (at <http://www.stateforesters.org/SFlist.html>), to help find a local tree farmer or private forestland owner in your area.
- You may do an internet search to locate a State Forestry Association in your state that may help you find a local private forestland owner. They may also be able to answer specific questions about private forestlands in your state.

(Student Page - Day 3 Activity Checklist)

Worksheet 4 - Interview: Checklist

_____ Find a Tree Farmer/Private Forestland Owner to interview (this may be provided to you by your teacher) **Due Date:** _____

_____ Contact the Tree Farmer or Private Forestland Owner to set up an interview by phone or e-mail. **Interview Date:** _____

_____ Create your Interview Question List; choose the 8 interview questions you would like to use and write your additional 2 or 3 questions.
Due Date: _____

_____ Turn in your Question List to be reviewed by your Editor (teacher)
Due Date: _____

_____ Conduct your interview; take notes, record interviewee's answers (be sure to get permission before conducting your interview). – Use permission form provided. **Due Date:** _____

_____ Write your historical essay or edit & create your documentary film, or oral history tape/CD. **Due Date:** _____

_____ **Final Project due:** _____

(Student Page - Day 3 Activity Permission Form)

Worksheet 4 - Interview Permission Form

I understand that the information I provide in this interview may be quoted in a short essay, poster, recording, or video that the student (named below) will write or produce for a school assignment on Forestland History, and that this production will be read by the teacher of this class at the school (named below), shared with the class involved with this assignment, and may be used for other educational purposes. Any original recordings may be archived with an official repository for future educational purposes.

When my statements are quoted in this student's paper and/or class discussions, I would like (circle one):

A) to be quoted by name;

B) to be quoted as a private forest owner, rather than by my real name.

Date: _____

Interviewee Signature: _____

Name of Student Interviewer: _____

Name of School: _____

(Student Page – Assessment 1 - Story)

ASSESSMENT 1: Application and Integration Exercise

Private Forestlands and the Challenges They Face

“This land is mine, mine to use and enjoy, mine to treat as I wish.” How true is this statement? Local, state and federal governments pass laws and ordinances that have an impact on land use rights. Landowners have many rights to the properties they own, but that doesn’t mean they have all rights. Recently, various actions by governments and courts suggest that the property rights of private landowners can be shared with the public and that these rights can be limited. For example, homeowners’ property rights are often limited by rules and regulations within their Home Owners Association. You may own a house but you may have to seek permission from the Home Owners Association to build a deck or addition on the back of your house, establish a fence or even cut a tree. Another example: you may own several hundred acres of private land that you would like to develop into new homes. Yet you must receive permits from the state and the city or county to develop this land. You may be required to have a certain amount of “open space” in your development or you may be required to build a certain number of “affordable homes.” You may own a private forest that contains “vital habitat” for the Northern Spotted Owl or the Red-Cockaded Woodpecker. In that case your timber harvesting is limited due to the Endangered Species Act.



Image 1: Red-cockaded Woodpecker; considered federally endangered since 1970 (under a law that preceded the Endangered Species Act of 1973). The woodpecker was once common to pine forests in the southeastern United States. Photo provided by the U.S. Fish and Wildlife Service (<http://www.fws.gov>)

President Richard Nixon signed the **Endangered Species Act (ESA)** into law in 1973. Today the Endangered Species Act is thought of by many as one of the nation’s main tools for conserving threatened and endangered species. The purpose of the Endangered Species Act is to protect and recover plant and animal species in danger of extinction, as well as the ecosystems on which they depend. Of the known threatened or endangered species in the United States, many exist within, or depend upon, forested ecosystems. Private property is very important in the management and conservation of Threatened and Endangered species because 75 percent of them reside on private forestland. Much of the 747 million acres of forestland in the U.S. is privately owned. In fact, over 71 percent is privately owned—a percentage that increases east of the Mississippi River to over 90 percent in Maine. So, how does the Endangered Species Act affect private forestland owners?

In February 2006 the U.S. Fish and Wildlife Service put Boiling Spring Lakes, North Carolina on notice that rapid development in their community threatened to squeeze out the red-cockaded woodpecker, an endangered species protected under the Endangered Species Act. The agency issued a map marking 15 active woodpecker “clusters,” and announced it was working on a new map that could potentially designate entire neighborhoods of this town as protected

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habitat. The red-cockaded woodpecker nests exclusively in living trees and in particular likes longleaf pines, which are abundant in Boiling Spring Lakes. After hearing the news of new maps landowners in Boiling Spring Lakes began clear-cutting thousands of trees to keep their land from becoming part of U.S. Fish and Wildlife's protected habitat areas, subject to more-stringent building restrictions. Between February and September 2006, the city issued 368 logging permits. People in the growing coastal community were fearful that if their land became designated as protected habitat, the value of their forested lands (either for timber or development) would decrease dramatically.

According to an Associated Press article from September 23, 2006: "Bonner Stiller had been holding onto two wooded, half-acre lakefront lots for 23 years to pay for his kids' college educations or cushion his retirement. He had both lots stripped of longleaf pines before the government could issue its new map."

On September 5, 2006 the latest federal bird survey map was available at a city commissioner meeting. This map indicated 24 nesting clusters and would potentially affect 2,704 lots in town, designating these areas as protected habitat. Strict rules on land being used by the birds would be enforced. Under the Endangered Species Act, longleaf pine trees, the woodpecker's prime habitat, cannot be removed without specific plans to reduce the impact on the birds. Under the protection of the Endangered Species Act, anyone convicted of killing, harming, or "harassing" the red-cockaded woodpecker could face up to a year in prison and \$100,000 in fines.

In September 2006 Pete Benjamin, supervisor of the U.S. Fish and Wildlife office in Raleigh, the state capital, said that the agency would be willing to work with Boiling Spring Lakes to develop a **habitat conservation plan**. A habitat conservation plan is a long-term conservation plan designed to show what a landowner will do to minimize the impact of their land actions (such as logging) on a listed Endangered Species. In Boiling Springs Lakes the habitat conservation plan might include moving some of the birds to property owned by The Nature Conservancy.

In March 2007, the city officials of Boiling Spring Lakes sought to create new legislation that would allow them to charge a special assessment, adding extra fees for individual building permits for development of wooded lots where the red-cockaded woodpecker lives. In order to receive such a permit, a property owner or developer must come up with a habitat conservation plan outlining steps taken to sustain the woodpecker's habitat elsewhere. This plan might include maintaining a portion of ones land as a protect area for the woodpecker and then developing the other portion of the land. This special assessment, paid to the city, would help pay some of the costs of developing a citywide woodpecker protection plan.

Another way the Fish and Wildlife Service tries to work with private forestland owners on the impact of the Endangered Species Act has been with **safe harbor agreements**. The general idea behind a safe harbor agreement is that people who do good deeds should not be punished for doing them. Safe harbor agreements are a relatively new (late-1990s) conservation tool. Safe harbor agreements assure landowners who agree to carry out activities on their land expected to benefit an endangered species that no added restrictions will be imposed on the landowner as a result. For example, if a landowner manages his/her land in ways likely to attract endangered species to their property, or to increase the number of those species already there, they will not experience increased restrictions on the future use of their property (i.e. they would be able to harvest timber or develop their land in the future even with the presence of an Endangered Species).

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The example in Boiling Springs Lakes shows how laws designed to protect endangered species, if not implemented carefully, can prompt the exact opposite behavior that was desired. In the Boiling Spring Lakes case, fear of economic losses caused many people to try to protect their assets from what they saw as a threat. Once their land was designated “protected,” landowners would not be compensated in any way for delays or expenses incurred by the regulations. Their extreme reaction has caused environmentalist, landowners, and government officials to come together to find a fairer approach to implementing laws that restrict uses of private property.

(Student Page – Assessment 1 - Directions)

ASSESSMENT 1: Application and Integration Exercise

Investigative Report: (Student Directions)

You have just read about one type of challenge, U.S. federal laws, that may arise for private forestland owners. Other concerns for private forestland owners may include:

- insects/pests invasions
- fire threats or wildfires
- pressure to sell for development
- taxes
- trespassing
- state legislation that limits management
- invasive species
- availability of scientific information

Forestland owners often face insect invasions or fire threats on their land and then they are forced to make a decision on how to combat these issues. They do not always have the financial resources or the latest technology to sufficiently protect their land and its timber resources. They also face pressure to sell for development. Sometimes private forestland owners find that they can make more money by selling part or all of their land for development rather than managing the land for trees. Taxes are an issue. There are numerous programs throughout the country that offer lower property taxes in exchange for protecting forestlands.

You are an investigative reporter and your mission in this assignment is to investigate issues that face private forestland owners. You may find articles in magazines or newspapers, and provide a follow up report to these stories. You may find information on an internet search or from the previous interview of a private forestland owner about issues s/he faces on their property. You are to find one issue facing private forestland owners and report on this issue. You may write an article, create a TV report, a radio broadcast or an informational poster. Here are the main questions you will need to answer. What is the issue? Give a detailed report of the issue. What impact does this issue have on private forestland owners? How do or could private forestland owners deal with this issue? How can society help private forestland owners deal with these challenges?

(Student Page – Assessment 1 Checklist)

Investigative Report Checklist:

_____ Conduct initial research on issues facing private forestland owners and choose the topic on which you will report.

Turn topic choice into teacher on: _____ (due date)

_____ Conduct more detailed research on your chosen topic. Be sure to find answers to all of the questions listed in the directions.

_____ Write your investigative article or create your investigate TV report or radio broadcast.

_____ Edit your investigative article, TV report, or radio broadcast.

_____ **Turn in Final Project, Due Date:** _____

_____ Give a 3 minute “brief” to the class on your findings. Participate in the follow-up class discussion.

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6. Define "tree farming."

7. The American Tree Farm System has a set of standards that any private forestland owner must meet in order for their land to become a Certified Tree Farm. Give at least three examples of these standards.

8. List three interesting facts you learned from your Tree Farmer/Private Forestland Owner Interview.

9. What is the most interesting thing you learned from these lessons on private forestlands?

Assessment 3: Reflective Exercise

Forest Products Industry in Your State:

After completing the assignments in Module 10, “The Significance of Private Forests in the U.S.” take some time to reflect on the products you use in your daily life that result from these private forests. Also take some time to reflect on the effect forest products have on your state’s economy. Answer the following questions (you may find some answers at <http://www.50states.com/>).

- 1) Define Timber Forest Products.
- 2) What Timber Forest Products are created in your state?
- 3) Is the Timber Forest Product Industry a leading industry in your state?
- 4) What are the leading industries in your state economy?
- 5) In how many states is the Timber Forest Products Industry a leading industry (in the top ten)? *Bonus Question: Name the states.
- 6) Would you like to own forestland in the future?
- 7) If you owned forestland, what would you own it for?