

# Who Owns Washington's Working Forestland?

BY ARA ERICKSON

**W**ashington's approximately 22 million acres of forestland<sup>1</sup> are managed and owned by a variety of government entities, companies, individuals, and other partnerships and organizations. Roughly 55 percent of the state's forestland is in western Washington and 45 percent is in eastern Washington (see Table 1). Approximately 43 percent of forestland is privately owned, while 57 percent is under public ownership and/or management<sup>1, 2, 3, 4, 5</sup> (see Tables 1 and 2). Of the privately owned land, industrial owners and non-industrial owners own approximately three to five million acres of forestland each; this large range is due to different definitions used to distinguish industrial from non-industrial owners and the type of data used to calculate these values.

Distinguishing between forestland and non-forestland, private and public, and industrial and non-industrial is pertinent to the discussion of private forest landownership. Not all forestland is functioning, or has the potential to function, as a *working forest*. The USDA's Forest Inventory Analysis (FIA) program estimates that 80 percent of Washington's forestland could be classified as timberland<sup>2</sup>: able to produce more than 20 million cubic board feet per year. Based on



*Washington's Public and Private Forests*, which used FIA data from 1989-1991, the most recent fully inventoried dataset currently available, approximately 17.3 million acres of the 22 million acres of forestland are classified as timberland.

Definitions distinguishing between industrial and non-industrial owners are varied: Industrial landowners hold more than 5,000 total acres<sup>4</sup>, more than 1,000 total acres, operate wood-using facilities<sup>3</sup>, harvest a minimum amount of board feet per year, and/or are incorporated or are a business entity. In many cases, non-industrial owners are defined as simply the inverse of industrial.

## The Problem

Without fully understanding the complexity surrounding ownership definitions, programs and policies cannot be successfully directed at appropriate ownership groups. Additionally, a common understanding of what characterizes a working forest is necessary. Other methods of differentiating between forestland and potential working forestland base could be useful; for example, taking into consideration not only growing potential, but overall land base, neighboring land uses and the like.

## The Different Pictures of Private Ownership

The following section illustrates just a few examples of the variability in currently available private forest landownership data. Much of the data

must be viewed and used with caution; for example, the most recent FIA annual survey for Washington is only 30 percent complete. The only complete data source is from the early 1990s. Table 1 shows forestland ownership according to 2004 FIA data<sup>1</sup>.

Washington State University (WSU) Extension Bulletin *Washington's Forest Products Industry: Current Conditions and Forecast 2004*<sup>4</sup> reports that the state's forestlands total 23 million acres; 14.7 public and 8.3 private. The difference between these reports is likely WSU's inclusion of tribal lands in the public category, as compared to tribal lands being considered private lands in the FIA reported data.

The WSU report states that slightly more than half of the private lands are in industrial forestland ownership—managed primarily for timber production—and the other half are owned by non-industrial or other private business entities. However, WFPA reports in their recent *Forest Facts and Figures*<sup>5</sup>—based on 1997 Resource Planning Act (RPA) Assessment and 2000-2001 FIA interim data—that 59 percent of private land is owned by industrial owners and 41 percent is owned by non-industrial owners. Once again, the difference in these reported numbers is likely due to a difference in semantics: WSU defines industrial owners as “primarily managing for timber production,” while WFPA defines industrial owners as “companies or individuals operating



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**Table 1. Forestland ownership, Forest Inventory Analysis Annual Inventory, 2004**

Ownership	Entire State (acres)	Western Washington (acres)	Eastern Washington (acres)
Public	12,574,566	6,857,951	5,716,616
Private	<u>9,406,718</u>	<u>5,357,056</u>	<u>4,049,662</u>
Total	21,981,284	12,215,007	9,766,277

Note: Tribal lands are considered private.

Data source: Forest Inventory Analysis program's *forest inventory mapmaker web-application* available on the internet at [www.ncrs2.fs.fed.us/4801/fiadlb/index.htm](http://www.ncrs2.fs.fed.us/4801/fiadlb/index.htm).

**Table 2. Washington's Public and Private Forests, 1997.**

Ownership	Forestland		Timberland	
	Acres	percent	Acres	percent
<b>Entire State</b>				
Total	20,894,000		16,083,000	
Public	11,148,000	53 percent	7,129,000	44 percent
Private	9,746,000	47 percent	8,954,000	56 percent
Forest Industry	4,805,000	49 percent of private land	4,610,000	51 percent of private land
Other Private	4,941,000	51 percent of private land	4,344,000	49 percent of private land
<b>Western Washington</b>				
Western WA total	11,877,000		9,581,000	
Public	6,067,000	51 percent	3,871,000	40 percent
Private	5,810,000	49 percent	5,710,000	60 percent
Forest Industry	3,785,000	65 percent of private land	3,732,000	65 percent of private land
Other Private	2,025,000	35 percent of private land	1,978,000	35 percent of private land
<b>Eastern Washington</b>				
Eastern WA total	9,017,000		6,502,000	
Public	5,081,000	56 percent	3,258,000	50 percent
Private	3,936,000	44 percent	3,244,000	50 percent
Forest Industry	1,020,000	26 percent of private land	878,000	27 percent of private land
Other Private	2,916,000	74 percent of private land	2,366,000	73 percent of private land
<i>Forestland:</i> At least 10 percent stocked by live trees or land formerly having such tree cover and not currently developed for non-forest use. The minimum area recognized is one acre. <i>Forest Industry:</i> private land owned by companies, with or without wood processing facilities, growing timber for industrial use. <i>Other Private:</i> private land not owned by forest industry, including tribal, farmer-owned and miscellaneous private lands.				

wood-using plants and/or companies or individuals with statewide holding totaling 1,000 or more acres.”

Another data source for land ownership information is *Washington's Public and Private Forests*<sup>2</sup>, which relied on the 1989-1991 FIA data. The data (see Table 2) in this publication was used for the basis of the calculations for the often-referenced Washington Department of Natural Resources' *Our Changing Nature*<sup>6</sup>, as well as many other publications that address forest ownership, health and status.

Many people would argue that ownership information is much better assessed using parcel-level data rather than point-level data; all of the data presented thus far are based on some variation of the FIA data, either the periodic, interim or annual data from different years, which comes from fixed points on a 3.4-mile grid across

the state. Parcel-level data allows a more complete picture and description of working forestlands and actual ownership patterns, and could answer questions similar to the following: How many people own one parcel of land? How many acres of industrial land are in a certain geographic area? How many parcels make up one large area of contiguous forest?

A Small Forest Landowner Database, created in 2001 for the Washington Department of Natural Resources by the University of Washington, College of Forest Resources' Rural Technology Initiative, was a first attempt at gaining a more precise idea of where small forest landowners live and own land in Washington. This database was built from county parcel data, and assumed that the designation of tax status alone would distinguish

forest landowners across the state; rather, many non-industrial forestlands are classified as open space or undeveloped lands rather than designated commercial forest or timberland. Thus, the database produced an estimate that appears far too low for small forest landownership across the state. Further work with the database showed that by including remotely-sensed information to detect forest cover, the actual amount of small forestland owned parcels increased almost two-fold.

Although the 2001 database is limited, it does provide spatial estimates of forest ownership patterns, which are difficult to achieve with FIA points, and actual numbers of owners rather than just area figures. Drawing from this database, it can be estimated that there are approximately 60 large industrial owners (vertically integrated forest products companies and those who own more than 5,000 acres across the state) and somewhere between 30,000 and 50,000 non-industrial owners (those who own less than 5,000 acres across the state). For more information about this database, see article by Luke Rogers elsewhere in this publication.

## A Proposed Solution

First, a distinction must be made between working and non-working forestlands: Non-working forests could be considered any forestland where forestry operations are specifically prohibited or are smaller than some minimum size, perhaps one acre; working forests would be all other forestland. This acreage requirement is subject to further refinement based on contiguity. Working forests operate best when they are surrounded by other working forests. A broader definition of *forestland use*, rather than forest cover, would be appropriate. Forestland use could be described as large contiguous areas of forested land, perhaps incorporating certain compatible non-forest uses, such as scattered houses, roads and other open space. Programs could then be targeted at specific locations where forestland use is present, rather than at a lone tract of forestland where the potential for a working forest is slim.

The diagram in Figure 1 depicts a



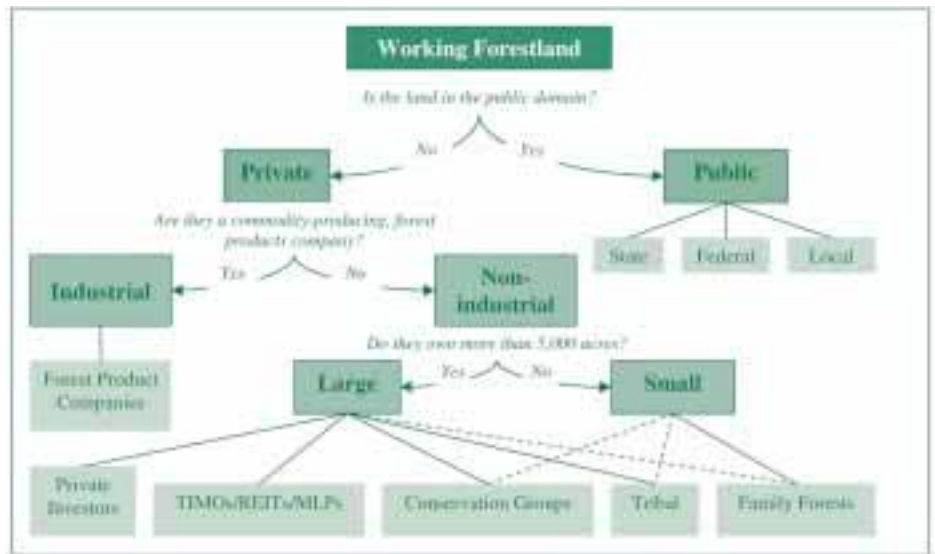
proposed method for distinguishing among the different forest landowner types, as discussed in the following paragraphs.

Distinguishing between public and private lands could be based on the requirement of public land being in the public domain, meaning the general public has common ownership of it. Private land would be any land not in the public domain; this includes tribal land since tribal lands are neither owned as “commons” nor are they bound by public land laws and regulations.

A simple distinction between industrial and non-industrial owners is needed: industrial lands are owned by commodity-producing forest products companies, while non-industrial lands are owned by everyone else. This is different than the now out-moded “NIPF” distinction that has been used to describe small forest owners; rather, non-industrial owners would include large corporations, private investors, TIMOs, REITs, MLPs, family forests, conservation groups and other forest landowners.

After distinguishing between industrial and non-industrial forest landowners, there are two categories: large and small. Rather than basing our distinctions on names and titles, the differentiation between industrial and non-industrial would be based on a measurable distinction, allowing for more appropriately directed and easily implemented programs and policies. Albeit somewhat arbitrary, 5,000 acres could be the distinguishing size. The DNR Small Forest Landowner Office directs its programs to landowners with less than 5,000 acres; thus, most of the family forests would fall in the “small” category. Conservation groups, TIMOs, REITs, MLPs, tribes and large private investors would most likely fall into the “large” category based on an assumption that it makes little financial sense for most of these groups to own less than 5,000 acres. There is some chance, however, that conservation groups and tribal land would amount to less than 5,000 acres, and that family forest owners could own more than 5,000 acres; therefore, these final owner categories are not necessarily directly tied to the “large” and “small” categories at all times.

**Figure 1. A Proposed Method for Distinguishing among Forest Landowners**



**Table 3. A Current Estimate of Forestland (in Acres) by Ownership in Washington State**

Forestland: 22,000,000			
Public: 12,600,000	Private: 9,400,000		
	Industrial: 2,900,000	Non-industrial: 6,500,000	
		Large: 3,300,000	Small: 3,200,000

Table 3 shows estimated acres of forestland in the above-discussed ownership categories, based on a combination of the 2004 FIA data, 2001 Small Forest landowner Database, and assumptions of actual numbers of small forest landowners and acreages owned.

**Summary**

Washington’s private working forests are owned by industrial forest product companies, large publicly traded and other investment-type companies, families, conservation groups, tribes, and various other individuals and groups. Before successful programs and policies are developed to assist or conserve working forestlands, it is necessary to determine the appropriate definition of working forestland and ownership categories. As more new non-industrial owners enter the forestry field, it is pertinent to be able to distinguish between the traditional commodity-producing companies and these other private enterprises. ♦

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LITERATURE CITED

<sup>1</sup>Miles, P.D. Sep-14-2005. Forest inventory mapmaker web-application version 2.1. St. Paul, MN: U.S. Department of Agriculture, Forest Service, North Central Research Station. Available only on the internet: [www.ncrs2.fs.fed.us/4801/fiadb/index.htm](http://www.ncrs2.fs.fed.us/4801/fiadb/index.htm).

<sup>2</sup>Bolsinger, C.L., N. McKay, D.F.L. Gedney, and C. Alerich. 1997. Washington’s Public and Private Forests. Resource Bulletin PNW-RB-218. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station: Portland, Oregon. 144 pages.

<sup>3</sup>Blatner, K.A., C.E. Keegan III, S.R. Shook, and F.G. Wagner. 2004. Washington’s Forest Products Industry: Current Conditions and Forecast 2004. Washington State University Extension, Miscellaneous Publication 0531. Accessed on September 11, 2005: <http://cru.cahe.wsu.edu/CEPublications/misc0531/misc0531.pdf>.

<sup>4</sup>Rogers, L.W. 2001. The Washington State Small Forest Landowner Database: Design & Implementation. Report prepared for the Washington State Department of Natural Resources under contract. Rural Technology Initiative, College of Forest Resources, University of Washington, Seattle, Washington.

<sup>5</sup>Washington Forest Protection Association (WFPA). 2005. Forest Facts and Figures. Accessed on September 12, 2005: [www.forestsandfish.com/PressRoom/pdfs/FFF-2005new.pdf](http://www.forestsandfish.com/PressRoom/pdfs/FFF-2005new.pdf).

<sup>6</sup>Belcher, J. M. 1998. Our Changing Nature: Natural Resource Trends in Washington State. Washington Department of Natural Resources: Olympia, Washington. 75 pages.