

# Finding a Job In Forestry

I frequently get employment, career and job questions on forestry and becoming a forester or forestry technician. Just how do you begin a forestry career or find a job with a conservation organization or company? According to the Bureau of Labor Statistics, the largest employer of forestry personnel is state and federal government. However, the government is not the only source for forestry employment.

The forest products industry is a very large employer and routinely hires foresters, forestry technicians and forestry workers throughout the United States and Canada. They usually hire foresters to work on company lands or to purchase wood for their mills.

There are also forestry consultants. I got my first start in forestry as an employee of a large consulting forestry firm who generally works for anyone needing forestry assistance. They do it all, either for a flat fee or a percentage of the sale of timber.

## **How to Become a Forester?**

A professional forester has a minimum of a Bachelor of Science (BS) degree in forestry. This degree has to be earned at an accredited forestry school and is usually a minimum entry-level requirement for becoming either a registered or licensed forester in many states, or to become a Certified Forester by the Society of American Foresters (SAF). Foresters are being trained and hired all over the world. Much of what a forester learns is in addition to formal training (see more on what a forester needs to know).

Foresters spend considerable time outdoors the first years of their careers. Typical entry-level responsibilities might include measuring and grading trees, evaluating insect outbreaks, conducting land surveys, working in an urban park, evaluating water quality, fighting wildfires, managing prescribed fires, laying out a road system, planting seedlings, and plan recreational use of forestlands.

Many foresters manage forested property or purchase timber from timbered lands. An industrial forester may procure timber from private landowners. Doing this entails contacting local forest owners, quantifying the inventory, and appraising the timber's worth.

A forester may have to deal with loggers, aid in road layout, and make sure the work meets landowner requirements. He also must deal with state and federal environmental specifications to qualify for types of cost-share practices or maintain appropriate site quality.

Foresters who work for state and federal governments manage public forests and parks and also work with private landowners to protect and manage forestland outside of the public domain. They may also design campgrounds and recreational areas. A consulting forester hangs up his own shingle and privately assists people and organizations that need forestry help (see more on what a forester does).

After several years of on-the-ground experience and crew supervision, foresters typically advance to preparing reports, public relations, and managing budgets. Many foresters become top executives in public agencies, conservation organizations, and corporations. Others become consultants offering specific forestry services and skills that they develop as they gain experience and knowledge.

Foresters manage forested lands for a variety of purposes. Generally they come in four groups:

## **The Industrial Forester**

Those working in private industry may procure timber from private landowners. To do this, foresters contact local forest owners and gain permission to take inventory of the type, amount, and location of all standing timber on the property, a process known as timber cruising. Foresters then

appraise the timber's worth, negotiate the purchase of timber, and draw up a contract for procurement. Next, they subcontract with loggers or pulpwood cutters for tree removal, aid in road layout, and maintain close contact with the subcontractor's workers and the landowner to ensure that the work meets the landowner's requirements, as well as Federal, State, and local environmental specifications. Industrial foresters also manage company lands.

### **The Consulting Forester**

Forestry consultants often act as agents for the forest owner, performing many of the above duties and negotiating timber sales with industrial procurement foresters. The consultant supervises planting and growing of new trees. They choose and prepare the site, using controlled burning, bulldozers, or herbicides to clear weeds, brush, and logging debris. They advise on the type, number, and placement of trees to be planted. Foresters then monitor the seedlings to ensure healthy growth and to determine the best time for harvesting. If they detect signs of disease or harmful insects, they decide on the best course of treatment to prevent contamination or infestation of healthy trees.

### **The Government Forester**

Foresters who work for State and Federal governments manage public forests and parks and also work with private landowners to protect and manage forestland outside of the public domain. The Federal government hires most of their foresters for managing public lands. Many State governments hire foresters to assist timber owners in making initial management decisions while also providing manpower for timber protection. Government foresters also can specialize in urban forestry, resource analysis, GIS, and forest recreation.

### **The Forestry Technician**

Generally working under the direction of a professional forester, forestry technicians compile data on the characteristics of forestland tracts such as size, content, and condition. These workers travel through sections of forest to gather basic information such as species and the population of trees, disease and insect damage, tree seedling mortality, and conditions that may cause fire danger.

A technician normally has completed a two-year degree in forest technology from a SAF recognized forestry technical school. They generally collect the information used to make forest resource decisions. Technical career advancement and ultimate salary levels are usually less than for foresters, however, technicians often have the opportunity to work more in the field than behind a desk.

### **Forest and Logging Workers**

The BLS Occupational Outlook Handbook defines a forestry worker as "less skilled workers who perform a variety of tasks to reforest and conserve timberlands and maintain forest facilities such as roads and campsites." The forest worker is usually the hands-on employee that facilitates first-line maintenance and protecting of the forest.

A sample of activities usually performed by a forest or logging worker is listed as follows:

- Tree planting and reforestation
- Prescribed burning and fire fighting
- Timber stand improvement including pesticide application
- Boundary line maintenance
- Timber cutting and logging
- Park and trail maintenance

Most forestry and logging workers develop their skills through on-the-job training. Instruction comes primarily from experienced workers. Many associations give special training, particularly for workers training to operate large, expensive machinery and equipment. Safety training is a vital part of instruction for all forestry and logging workers.

Forestry and logging occupations are physically demanding. Most forestry and logging workers often do work outdoors in all kinds of weather, sometimes in isolated areas. Most logging occupations involve lifting, climbing, and other strenuous activities.

Loggers work under unusually hazardous conditions. Falling trees and branches are a constant threat and so are the dangers associated with log handling operations and use of sawing equipment.

Over long periods of time, high noise levels of logging and harvesting equipment may impair hearing.

Experience, exercise of caution, and use of proper safety measures and equipment - such as hardhats, eye and hearing protection, safety clothing, boots, and fire shelters - are extremely important to avoid injury.

Working conditions vary considerably - you may be inside for weeks at a time. But it is a certainty that a large part of your job will be outside. This is especially true during your first several years of employment where you are building career basics. These basics become your future war stories.

Although some of the work is solitary, most foresters have to also deal regularly with landowners, loggers, forestry technicians and aides, farmers, ranchers, government officials, special interest groups, and the public in general.

Some work regular hours in offices or labs but this is usually the experienced forester or forester with a graduate level degree. The average "dirt forester" splits his/her time between fieldwork and office work, many opting to spend most of the time outside.

The work can be physically demanding. Foresters who work outdoors do so in all kinds of weather, sometimes in isolated areas. Some foresters may need to walk long distances through thick vegetation, through wetlands, and over mountains to carry out their work. Foresters also may work long hours fighting fires and have been known to climb fire towers several times a day.

### **Tools of the Trade**

Foresters use many specialized tools to perform their jobs: Clinometers measure the heights, diameter tapes measure the diameter, and increment borers and bark gauges measure the growth of trees so that timber volumes can be computed and future growth estimated. Photogrammetry and remote sensing (aerial photographs and other imagery taken from airplanes and satellites) often are used for mapping large forest areas and for detecting widespread trends of forest and land use. Computers are used extensively, both in the office and in the field, for the storage, retrieval, and analysis of information required to manage the forestland and its resources.