

# FORESTER

## GREEN JOB FACT SHEET



Every day, foresters across the United States lace up their boots, put on their high-visibility vests, and head out to the woods. They gather information about forest health so they can predict and identify problems. They also create detailed plans to harvest and regenerate forests. They are responsible for protecting important wildlife habitats, cultural areas, and other historical assets within forests.

### THE BIG PICTURE

Foresters manage our forests so that the communities and wildlife that depend on them can thrive. As problem solvers, they balance the ecological, social, and economic value of forests by:

- Creating plans that tackle challenges and achieve long-term forest management goals.
- Using scientific information and research to help make decisions that ensure the long-term health of a forest.
- Monitoring the impacts of their decisions, in order to make better choices in the future.

### IS THIS CAREER RIGHT FOR YOU?

Since foresters work in the field, in the office, or in the lab, they have diverse skills: writing, data analysis, and plant and animal identification. Foresters must organize and moderate meetings and talk about their plans to many different people, including Indigenous communities and government representatives. To succeed in this job, you should be a good communicator.

### MOVING FORWARD



Here's a path of study that could lead to a career as a forester. You'll likely need a four-year college degree.

**HIGH SCHOOL:** Focus on biology, chemistry, mathematics, physics, and pre-calculus classes.

**COLLEGE:** Earn a bachelor's degree in forestry. Visit the [ForestryUSA website](https://www.forestryusa.org) for a list of U.S. colleges and universities that offer forestry degrees.

For more about green jobs, visit [www.plt.org/workingforforests](https://www.plt.org/workingforforests)

Do you care about wildlife, the **ENVIRONMENT**, and forests? Do you feel most comfortable in the **OUTDOORS**, getting your hands dirty? If so, this might be the perfect career for you!

### SALARY

U.S. salaries range from about \$47,000 to \$97,000 per year and average about \$70,000.

### WHERE CAN YOU GROW?

Careers in forestry include forestry technician, extension agent, land conservation specialist, and arborist. Some possible employers and tasks:

- Forestry companies (creating timber management plans)
- Government agencies (developing policy)
- Private landowners (developing property management plans)
- Schools or universities (inspiring the next generation of leaders)
- Nonprofit organizations (contributing to education, conservation, and research)



# ENVIRONMENTAL EDUCATOR GREEN JOB FACT SHEET



Environmental educators help youth and adults learn about forests and the environment by engaging people in hands-on experiences in the natural world. They provide facts, answer questions, and lead interactive field trips, hikes, and workshops. Environmental educators often teach outdoors, using forests and camps as their classrooms. They also spend time researching to make sure they are providing accurate, relevant information.

## THE BIG PICTURE

Environmental educators help create the next generation of environmental stewards by:

- Building awareness about the environment and empowering the transition to sustainability.
- Building critical thinking and problem-solving skills.
- Making real-world connections using science, math, and technology.

## IS THIS CAREER RIGHT FOR YOU?

Environmental educators enjoy learning about the world around them and work with people of all ages and education levels. They often must adapt to new situations and scenarios. To succeed in this job, you need flexibility, adaptability, and the ability to communicate well.

## MOVING FORWARD



Here's a path of study that could lead to a career in environmental education. You'll likely need a four-year college degree.

**HIGH SCHOOL:** Focus on science (especially biology), social sciences, math, and geography classes. Gain experience working with kids and members of the public by volunteering at a community center or becoming a camp counselor.

**COLLEGE:** Work toward a bachelor's degree in education, environmental science, natural resources, conservation, or similar fields.

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Are you a strong **COMMUNICATOR**? Do you enjoy **LEADING** groups and helping others learn?

If so, this might be the perfect career for you!

## SALARY

U.S. salaries range from about \$34,000 to \$77,000 per year and average about \$50,900.

## WHERE CAN YOU GROW?

Careers in environmental education include ecotourism specialist, communications coordinator, sustainability manager, and parks interpreter. Some possible employers:

- Government agencies (state and federal)
- Forest industry
- Schools or universities
- Nonprofit organizations



# GIS SPECIALIST

## GREEN JOB FACT SHEET



A geographic information system (GIS) is a set of digital mapping tools that helps to organize, communicate, and understand information about our world. GIS specialists use scientific research, spatial data, and expert opinions to help develop plans and management strategies. In forestry, they analyze forestry patterns and trends, map natural disasters, track wildlife, measure logging rates, and more.

### THE BIG PICTURE

GIS specialists compile a wide variety of data and prepare maps and reports to help monitor the environment and ensure sustainability. Their work involves:

- Managing forests and natural resources.
- Monitoring and analyzing climate patterns.
- Contributing to land-use planning.

### IS THIS CAREER RIGHT FOR YOU?

Although some GIS specialists do field work, most work at a desk. GIS specialists are good at focusing on details when managing, analyzing, and mapping data. They can also see connections between spatial data and real-world conditions. To succeed in this job, you need computer experience, statistical and analytical abilities, and problem-solving skills.

### MOVING FORWARD



Here's a path of study that could lead to a career as a GIS specialist. You'll likely need a four-year college or even a graduate degree.

**HIGH SCHOOL:** Try to take geography, computer science, and physics classes.

**COLLEGE:** Earn a bachelor's degree in GIS, geomatics, geography, computer science, or environmental sciences. Gain hands-on experience in a real-world setting through a one-year GIS graduate certificate or an internship, or by volunteering for a nonprofit organization.

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Are you a **VISUAL** thinker?  
Do you like using **MAPS** and graphs to make sense of the world? If so, this might be the perfect career for you!

### SALARY

U.S. salaries range from about \$50,000 to \$92,000 per year and average about \$80,000.

### WHERE CAN YOU GROW?

A career in GIS can include work as a cartographer, geographer, remote sensing technician, environmental scientist, or landscape planner. Some possible employers:

- Federal, state, or local government agencies
- Private companies
- Colleges or universities



# INDIGENOUS RELATIONS SPECIALIST

## GREEN JOB FACT SHEET



Indigenous relations specialists build and maintain ongoing relationships with Indigenous communities. They work to create trust and provide a line of communication between Indigenous communities and government agencies or private companies engaged in development practices. They are often deeply rooted in an Indigenous community and bring in-depth knowledge of Indigenous culture, community issues, and governance. They work to create positive relationships between Indigenous and non-Indigenous people.

### THE BIG PICTURE

Indigenous relations specialists make sure that projects comply with environmental laws and protect historical sites and respected ways of life, by:

- Monitoring, analyzing, and communicating issues and opportunities.
- Sharing best practices and lessons learned among the groups involved.
- Developing project plans and permits that meet the needs of both Indigenous and non-Indigenous communities.

### IS THIS CAREER RIGHT FOR YOU?

Indigenous relations specialists must be able to see things from other people's perspectives. They meet with communities to identify their needs and work toward compromises. They do research, write reports, plan community engagement activities, and study relevant laws and regulations. To succeed in this job, you need patience to build relationships and trust.

### MOVING FORWARD



The road to working as an Indigenous relations specialist is different for everyone. Many people have training in a related field, such as forestry.

**HIGH SCHOOL:** Study a wide range of subjects and focus on developing your communication skills.

**COLLEGE:** Work toward a bachelor's degree in public administration, economic development, law, anthropology, natural resources, or related discipline.

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Are you good at finding common ground among different **PEOPLE**? Do you care how development affects local **COMMUNITIES**? If so, this might be the perfect career for you!

### SALARY

U.S. salaries range from about \$36,000 to \$95,000 per year and average about \$56,000.

### WHERE CAN YOU GROW?

A career in Indigenous relations can include work as a traditional ecological knowledge advisor, heritage interpreter, or conservation relationship consultant.

Some possible employers:

- Federal, state, or local government agencies
- Forest industry companies
- Research organizations
- Consulting firms



# FORESTRY TECHNICIAN

## GREEN JOB FACT SHEET



Forestry technicians gather data, monitor resource use, and inform decision-making. Their tasks vary depending on their employer's needs. On any given day, they might work on a conservation project, supervise a tree nursery, or help to coordinate fire suppression efforts. They work as part of a forest management team, often under the direction of a forester.

### THE BIG PICTURE

Forestry technicians assist professional foresters in managing forest resources. They help to ensure the sustainability of forests for future generations by:

- Monitoring for harmful insects or tree diseases.
- Coordinating reforestation efforts after trees are harvested or destroyed by fire.
- Calculating sustainable yields of forest trees.

### IS THIS CAREER RIGHT FOR YOU?

Forestry technicians need to know basic forest management techniques and to have experience with specific forestry tools, such as prisms, clinometers, and calipers, or geographic information system (GIS) and database programs. To succeed in this job, you need collaboration and planning skills, because you'll often be working in a team.

### MOVING FORWARD



Here's a path of study that could lead to a career as a forestry technician. You'll likely need vocational experience or a two-year associate degree.

**HIGH SCHOOL:** Focus on science and math courses. Gain on-the-job experience through summer employment at the parks department, or through a work–study program or internship.

**COLLEGE:** Many junior and community colleges offer two-year programs leading to an associate degree in forest technology with courses in land surveying, timber cruising, forest protection, wildlife management, and logging.

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Do you like being **OUTDOORS** and working with your **HANDS**? Are you excited by a job that is different every day?

If so, this might be the perfect career for you!

### SALARY

U.S. salaries range from about \$23,000 to \$51,000 per year and average about \$34,000.

### WHERE CAN YOU GROW?

A career as a forestry technician can include jobs in silviculture, natural resources, maintenance, or invasive species, and work as a utility forester. Some possible employers:

- Federal and state government agencies that manage public forest lands for recreation and conservation
- Companies that manage forests for wood or paper products
- Companies in the mining, petroleum, and railroad industries



# PARK RANGER GREEN JOB FACT SHEET



Park rangers help protect our parks and share them with the public. They help visitors make the most of their visit, present educational programs on the park's natural or historical significance, maintain facilities, and keep the park safe for everyone. Most park ranger positions involve either (1) education and interpretation or (2) law enforcement and protection.

## THE BIG PICTURE

Park rangers are passionate about protecting the environment, wildlife, and park visitors. In the forest sector, their work helps to ensure the sustainability of forests by:

- Educating visitors about the forest.
- Explaining rules and regulations to visitors and enforcing them.
- Keeping visitors safe in the forest and keeping the forest safe from visitors.

## IS THIS CAREER RIGHT FOR YOU?

Much of a ranger's time is spent outside, and the job can be physically demanding. Park rangers may also work indoors when welcoming visitors, preparing reports, or doing administrative tasks. To succeed in this job, you need to be a good leader who can take charge in emergencies, and you need interpersonal and communication skills to keep park visitors safe.

## MOVING FORWARD



Here's a path of study that could lead to a career as a park ranger. You'll likely need a four-year college degree.

**HIGH SCHOOL:** Focus on biology, earth science, and environmental science classes. If possible, participate in a student ranger or junior forest ranger program, and volunteer in your local parks to gain relevant work experience.

**COLLEGE:** Earn an undergraduate degree in a related field, such as conservation enforcement, natural resource management, outdoor education, or forestry. You should also get first-aid certification and public safety training.

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Do you dream of working in the great **OUTDOORS**? Do you enjoy working with **PEOPLE** of all ages and backgrounds? If so, this might be the perfect career for you!

## SALARY

U.S. salaries range from about \$27,000 to \$61,000 per year and average about \$40,000.

## WHERE CAN YOU GROW?

A career as a park ranger can include a job as a conservation biologist, fisheries officer, or ecotourism operator. Some possible employers:

- Federal, state, or local government agencies
- Private conservation sites or landmarks
- Municipal parks



# HYDROLOGIST

## GREEN JOB FACT SHEET



Hydrologists are scientists who study the structure and function of lakes, rivers, and watershed systems. They analyze water levels and the rates, timing, and distribution of water flows. In forestry, they analyze how tree harvesting affects aquatic ecosystems, and they work with foresters and wildlife biologists on conservation. Hydrologists gather information in the forest, then head back to the lab to analyze data and report findings.

### THE BIG PICTURE

Hydrologists investigate water and the water cycle to solve important questions, by:

- Learning how streamflow shapes forests.
- Studying the ways in which climate change affects watersheds.
- Understanding the environmental consequences of erosion, drought, and other water-related issues.

### IS THIS CAREER RIGHT FOR YOU?

Hydrologists have great research and analysis skills. They gather information and use critical thinking to identify and solve problems. To succeed in this job, you need strong communication skills and must be comfortable working in and near bodies of water.

### MOVING FORWARD



Here's a path of study that could lead to a career in hydrology. You'll likely need a four-year college or even a graduate degree.

**HIGH SCHOOL:** Focus on biology, statistics, social sciences, math, and physics classes.

**COLLEGE:** Choose a hydrology concentration within a geoscience, engineering, environmental science, or Earth science program. Earn a master's degree to get more opportunities and a higher salary.

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Are you drawn to **WATER**?  
Are you curious about the relationship between water, **CLIMATE**, the Earth, and living things? If so, this might be the perfect career for you!

### SALARY

U.S. salaries range from about \$40,000 to \$96,000 per year and average about \$61,000.

### WHERE CAN YOU GROW?

A career as a hydrologist can include working as a climatologist, environmental geologist, oceanographer, or hydrogeologist. Possible employers include:

- Federal, state, or local governments
- Management, scientific, and technical consulting companies
- Private companies that provide engineering services



# SILVICULTURE TECHNICIAN

## GREEN JOB FACT SHEET



Silviculture is the practice of growing and cultivating trees. Silviculture technicians help to maintain forest health by doing site assessments, thinning stands, managing fires, engaging in reforestation, and more. They need to understand how trees grow, including how environmental conditions can affect their health.

### THE BIG PICTURE

Silviculture technicians work with foresters to manage forests sustainably, by:

- Calculating the yield of trees in a plot, flagging individual trees and boundaries.
- Supervising planting to regenerate forests.
- Helping to decide how much space to give each young tree, as well as how much to prune and fertilize it.

### IS THIS CAREER RIGHT FOR YOU?

Silviculture technicians need to be physically fit and comfortable using tools, machines, and operating equipment. They work in all types of weather conditions. They typically have good technical and computer skills and are experienced with GPS and GIS software. To succeed in this job, you need management, communication, and people skills to lead tree planting crews and enforce reforestation rules.

### MOVING FORWARD



Here's a path of study that could lead to a career as a silviculture technician. You'll likely need vocational experience or a two-year associate degree.

**HIGH SCHOOL:** Focus on science, math (especially calculus), geography, and social sciences.

**COLLEGE:** Look for community college programs in forest technology or natural resources management that provide field experience, as well as a regulatory background pertaining to reforestation techniques.

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Do you enjoy being active **OUTDOORS**? Are you passionate about helping **FORESTS** thrive?

If so, this might be the perfect career for you!

### SALARY

U.S. silviculture technicians can be full-time, hourly, or seasonal, with salaries ranging from \$30,000 to \$50,000 per year and average about \$40,000.

### WHERE CAN YOU GROW?

A career in silviculture can include work as a forestry technician or silviculture technologist. Some possible employers:

- Federal, state, or local government agencies
- Forest industry companies
- Consulting firms



# URBAN FORESTER

## GREEN JOB FACT SHEET



All the trees that grow in a city or town make up its urban forest. Although it looks different from a typical idea of a forest, an urban forest provides critical benefits to people and wildlife. Urban foresters inventory and monitor tree health using a variety of tools to track tree condition, location, and canopy cover. Their work often goes beyond tree care to involve urban planning, research, policy and law, and advocacy.

### THE BIG PICTURE

Urban foresters ensure that urban forests provide social, physical, and environmental benefits for humans and the surrounding ecosystem by:

- Participating in community events to promote urban forestry.
- Developing and supporting urban forest management plans.
- Ensuring that contractors follow city policies and regulations.

### IS THIS CAREER RIGHT FOR YOU?

Urban foresters are excellent observers who can assess tree health and prescribe appropriate treatments. They need to be flexible and innovative, as their job can vary so much. Some days, they write management plans, while other days they use chainsaws and other heavy equipment to remove trees that are infected with disease. To succeed in this job, you need to be a good communicator, as you'll be talking with residents, land use planners, city managers, and more.

### MOVING FORWARD



Here's a path of study that could lead to a career as an urban forester. You'll likely need a four-year college degree.

**HIGH SCHOOL:** Focus on biology, chemistry, mathematics, physics, and pre-calculus classes.

**COLLEGE:** Complete a bachelor's degree in forestry or a related field, such as environmental science, biology, and natural resource management.

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Do you care about sustainability, urban **COMMUNITIES**, and trees? Do you enjoy working **OUTDOORS** and using a range of tools? If so, this might be the perfect career for you!

### SALARY

U.S. salaries range from about \$35,000 to \$78,000 per year and average about \$60,000.

### WHERE CAN YOU GROW?

A career as an urban forester can include working as an arborist, commercial grounds worker, or tree care consultant. Some possible employers:

- Federal, state, and city government agencies
- Local and city-based nonprofit organizations
- Public utility companies
- Landscape maintenance and architecture firms
- Universities, colleges, and extension services



# MACHINE OPERATOR GREEN JOB FACT SHEET



Machine operators work with mechanical or computer-operated equipment. They calibrate machines to launch production, determine optimal settings, and oversee material operations. They are responsible for ensuring that equipment is working properly.

## THE BIG PICTURE

In the forestry sector, machine operators drive harvesting and roadbuilding machinery or operate equipment in lumbermills or papermills. Their work helps to process wood, paper, and forest products by:

- Helping to assess forest sites and terrain.
- Running machines like skidders, feller bunchers, loaders, and sawmill or paper machines.
- Safely handling logs, paper pulp, and other forest materials.

## IS THIS CAREER RIGHT FOR YOU?

This is often a fast-paced, physically demanding job. Machine operators are good at using tools and following safety rules. Because they work with heavy machinery, they wear safety equipment like hard hats, safety boots, and ear protection. To succeed in this job, you need to be detail-oriented and have good hand–eye coordination and problem-solving skills.

## MOVING FORWARD



Here's a path of study that could lead to a career as a machine operator. It is a great choice if you are looking for a job right out of high school or a more limited college experience.

**HIGH SCHOOL:** Take advantage of any career and technical education program (CTE) your school may have. Gain entry-level work experience as a warehouse worker or production worker. Look for machine operator apprenticeships.

**COLLEGE:** To get a job in the forestry sector, it is helpful to take college courses in wood science or wood technology, but it is not required.

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Do you enjoy working with your **HANDS**? Do you love making things with specialized **TOOLS**?

If so, this might be the perfect career for you!

## SALARY

U.S. salaries range from about \$19,000 to \$74,000 per year and average about \$36,700.

## WHERE CAN YOU GROW?

A career as a machine operator can include work as a machinist, millwright, assembler, or construction worker. Some possible employers:

- Federal or state government agencies
- Forest products companies



# WILDLIFE BIOLOGIST

## GREEN JOB FACT SHEET



Wildlife biologists study the biology, behavior, and habitats of animal populations in the wild. Their research often takes them into the wilderness, where they conduct wildlife surveys and habitat assessments. They frequently observe animals' roles in a specific ecosystem and perform experiments to learn about animal species, ecosystem interactions, and how humans influence habitats.

### THE BIG PICTURE

Wildlife biologists play a crucial role in forestry conservation efforts, as wildlife are a key indicator of healthy forests. They help guide sustainable forest management decisions by:

- Making observations, running controlled tests, and analyzing their findings.
- Consulting on and implementing measures to improve wildlife habitat.
- Drafting reports and presentations for internal and external stakeholders, policymakers, and the public.

### IS THIS CAREER RIGHT FOR YOU?

Wildlife biologists spend lots of time in the field outdoors, often in remote areas without physical comforts. To succeed in this job, you also need to have strong research and analytical abilities and excellent communication skills to write reports, submit recommendations, and make presentations to industry and government.

### MOVING FORWARD



Here's a path of study that could lead to a career as a wildlife biologist. You'll need a four-year college or even a graduate degree.

**HIGH SCHOOL:** Focus on biology, math (especially calculus), English, and chemistry.

**COLLEGE:** Earn a bachelor's degree in the applied and natural sciences, such as wildlife biology, ecology, or zoology. While the minimum education requirement is a bachelor's degree, many wildlife biologists have a master's degree or a PhD.

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Do you love **ANIMALS**?  
Are you passionate about studying **HABITATS** and working outside to help them? If so, this might be the perfect career for you!

### SALARY

U.S. salaries range from about \$39,000 to \$99,000 per year and average about \$62,000.

### WHERE CAN YOU GROW?

A career as a wildlife biologist can include a job as an ecologist, conservation biologist, fisheries technician, or zoologist. Some possible employers:

- Federal or state government agencies
- Zoos or environmental research facilities
- Private consulting firms
- Colleges and universities



# SUSTAINABILITY MANAGER

## GREEN JOB FACT SHEET



Sustainability managers ensure that organizations set and meet environmental goals, adhere to environmental standards, and minimize environmental harm. They make sure that organizations' business practices are economically, socially, and environmentally sustainable. Their job is to ensure that people and the planet prosper now and in the future.

### THE BIG PICTURE

Sustainability managers promote environmental protection and social responsibility, while also maintaining profitability, by:

- Developing sustainability plans to help organizations conserve energy, use resources wisely, and manage waste.
- Ensuring that organizations comply with environmental, health, and safety regulations.
- Keeping current on the latest sustainability trends, products, and certifications.

### IS THIS CAREER RIGHT FOR YOU?

Sustainability managers must be organized and must enjoy multi-tasking. They lead teams, coordinate among departments, and communicate with internal and external stakeholders. To succeed in this job, you need an analytical mind to identify problems and research solutions.

### MOVING FORWARD



Here's a path of study that could lead to a career as a sustainability manager. You'll likely need a four-year college or even a graduate degree.

**HIGH SCHOOL:** Focus on environmental science, biology, chemistry, engineering, and economics. Volunteer for environmental initiatives in your area to gain hands-on experience.

**COLLEGE:** Earn a bachelor's degree in business, environmental science, environmental management, engineering, or sustainability. Consider earning a master's degree in environmental policy, economics, or business administration.

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Do you like thinking about the **FUTURE**? Are you passionate about finding **SOLUTIONS** to environmental challenges? If so, this might be the perfect career for you!

### SALARY

U.S. salaries range from about \$50,000 to \$115,000 per year and average about \$73,000.

### WHERE CAN YOU GROW?

A career in sustainability management can include work as a business manager, production manager, accountant, or compliance officer. Some possible employers:

- Federal, state, and local government agencies
- Manufacturing facilities
- Nonprofit organizations
- Universities, colleges, and other academic institutions
- Environmental consultant firms

