



Restoration Biologist

Job Description

Identify and restore degraded habitat for a variety of species with specific habitat needs. They do this through research of best management practices and development of experimental studies. They evaluate the health of the ecosystem through field work, site visits, experiments, and analysis. Restoration projects typically require monitoring and prolonged health evaluation.

Salary

Entry — \$33,000
Middle — \$56,000
Top — \$78,500+

Core Tasks

- In the field, tasks include collecting field samples, identifying plant/animal samples, community education, and communication with stakeholders.
- In the office, tasks include developing and implementing techniques to develop restoration prescriptions, planning restoration projects, managing budgets, and writing scientific reports.
- Plan, manage and evaluate habitat and species restoration projects.

Workplace / Environment

- **Work hours**
Approx. 40 hours/week
(Long days required during key seasons)
- **Environment**
Strong mix of field work and office work, with field work including being outside in a **variety of weather conditions**
- **Travel**
Includes hiking and working in **remote areas**.

Education / Prerequisites

Education Level

Bachelor's Degree in a related field and/or Master's for advanced work

Licensing

Valid WA State Driver's license required

Pre-Job Preparation

Experience in field work, growing plants, noxious weed management, and animal science/habitat science related courses

Experience

Soft Skills

- Organization
- Communication
- Detail-Oriented

Technical Skills

- Environmental Analysis
- Technical Writing
- Ecological Knowledge



Career Path: Natalie Schmidt

About Me

Restoration Biologist at Tacoma Water

B.S. in Ecology and Evolutionary Biology, PhD in Environmental Science

Early Experiences

"I **grew up on a nursery**. I grew up around plants, growing plants, gardening a lot, and I never wanted to do that as a career. I absolutely **hated science**, specifically biology, I really didn't like it at all. When I got to college, I took a non majors genetics class, and it blew my mind. I had an **incredible professor** I immediately switched my major to **biology**, and really moved into science and got excited about it. I got **excited about ecology, specifically in restoration**. After college, I joined the Peace Corps. I spent two years doing agriculture and agro-forestry work in Senegal. And when I came back, I was a little **more focused** and went to graduate school for a more restoration ecology focused degree."



Winding Paths

"Then my path got a little windy. I was teaching community college and also going to school full time **finishing my PhD** when I **received a job offer** from Tacoma Water to run their water conservation program, which was a bit of a divergence from what I had been working on, but it seemed like a really good idea. So I finished my teaching contracts, I finished my degree, and I started working for Tacoma Water. After that I moved around a little bit within Water and eventually landed where I am now as a biologist, which is probably **where I'll stay for a very long time.**"

Reflection

"I've always **enjoyed working outside** and have done a lot of volunteering outdoors, that really helped me continue to get excited about that sort of work. I feel constantly grateful that that's part of what I'm **paid to do in my current job**. I have done so many aspects of my current work for free in the past in various volunteering scenarios. Most days, I still can't believe someone's paying me to do this. **It's so cool**. Being able to tap back into my childhood of working on a nursery, even though I tried to fight it, it's really **great and nostalgic** for me to be working in a nursery again."

About My Job

"I love so many things about my job. One of the best things is that it's really variable."

Pros

- "There are **so many pros** to my job. The variability, getting to be outside getting to work in a really beautiful place are all pros. I get to work with a really great team of people."
- "I always **feel so satisfied** putting any sort of plants in the ground. It's nice to have a visual representation of doing something good. **Planting plants and growing plants**, I find to be a **very satisfying** one. I also really get a lot of satisfaction out of teaching."
- "I find pushing changes in policy and writing grants for bigger projects more of a **long term satisfaction**. Something that I think about in terms of legacy. Those those things are **also important**, even if they're less satisfying immediately than planting a tree."

Fieldwork

- "I would say I probably **spend 75% of my time or more outside**, whether that's in the actual watershed itself or in the nursery."
- "**Day to day really varies**. In the fall, I am doing a lot of planting. I have a nursery on site; in several weeks, I'll probably plant out maybe a couple of 1,000 plants. We've already put in probably 2,000 plants on another site."
- "We do a lot of **monitoring and assessing** different sites in the spring and summer."

Cons

- "Certainly there are days when you're working in the snow or in the rain, or in other conditions where it's cold. It can be **very tiring**."
- "Occasionally, especially in the fall, you may be far out into the woods and on your way back you'll find the **road blocked by a tree**. You're already tired, and you have to get out the chainsaw and cut the tree out of the road. Which is a bummer when you're tired. But **also is kind of cool**."
- "There are **dangerous aspects** of the job. We have a huge area that we work in, were we don't have any cell coverage. We rely on radios to communicate."

Office Work

- "25% of the time I am in the office or at home doing something on the computer."
- "In the winter, I'll move into salvaging plants, so restocking the nursery, while **writing grants**."

Skills

- "Some skills that are really good to have are **soft skills**; being flexible, being adaptable, critical thinking, general writing skills. Technical writing is really important for a lot of science jobs. And just being able to write a succinct **clear report is really helpful.**"
- "It's helpful to know how to deal with **noxious weeds**. If you can get your pesticide applicators license, that's really helpful."
- "**Knowledge of how plants work** is really good."
- "**Grant Writing** is very helpful if you can get that sort of experience. And that's something you can probably do as a volunteer if you find a **nonprofit to work** with."
- "The skills that I lack in varying degrees are **GIS**, that's really helpful. I am very limited in my skills, so I rely on other people for that."

Education/Experience

- "If you're interested in getting to environmental jobs, where you're working outside, start **volunteering with organizations**. There are all sorts of nonprofits, city groups, county groups that do work parties, where you're planting trees, or you're removing blackberries. Not only does that help you get skills, it also helps **you get connections** with people who might tell you about a job or they might even be on your interview panel."
- "Don't shy away from something that seems like it **will never be important**. As you're able to pursue a degree it doesn't have to be exactly the thing and you might change your mind as you take classes. You never know when you're going to get **really excited about something.**"

The Future of the **Restoration Biology**

"We want to provide the best habitat that we possibly can on our land."

"I feel like my job is really going to evolve as we **get fish passage happening**. We're trying to do a lot of restoration ahead of the fish coming into the upper watershed. So that's **very exciting**. I'm working with our fish biologist to both figuring out where is the best place to do restoration actions, and then what those will be continuing to work and adapt as we see how the fish are using the landscape. Similarly with other species, we're **continuing to get data** from other entities like the Department of Fish and Wildlife and the Muckleshoot Indian Tribe, about how animals are using the landscape. We are then adapting our management to try to help those populations that other folks care about to thrive."

About Sustainability Ambassadors

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We support a year-round training program for over 60 highly motivated middle and high school youth, a Teacher Fellows Program, City-County CAP internships, and college-level interns, and work with hundreds of educators to design new models of problem-based, place-based learning around **a shared vision of educating for sustainability**.

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See Seattle's [Clean Energy Resources Map](#) to examine what the city is planning for a greener energy future.

Check out the [U.S. Green Building Council](#) to explore the sector's current opportunities. :

Funder Acknowledgement



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Wastewater Treatment Division

