



2024

## Environmental Restoration Intern

Chloe Alexis Bibb  
*Western Washington University*

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# COLLEGE OF THE ENVIRONMENT



**Internship Title:** Environmental Restoration Internship

**Organization Worked For:** City of Bellingham Parks and Recreation

**Student Name:** Chloe Bibb

**Internship Dates:** 10/6/23 6/29/24

**Faculty Advisor Name:** Erika McPhee-Shaw

**Department:** ESCI

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**STUDENT SIGNATURE** \_\_\_\_\_

**DATE:** 6/11/24 \_\_\_\_\_

# COLLEGE OF THE ENVIRONMENT



Section 1 – Student Identification			
Last Name, First Name:	Bibb, Chloe	Western ID:	W01517982
Email Address	bibbc@wwu.edu	Major/PreMajor	Environmental Science

Section 2 – Registration Information			
Total Credits:	9	Faculty Advisor:	Erika McPhee-Shaw
Internship Start Date:	October 6, 2023	Internship End Date:	~ mid June
Number Credits Per Quarter (F/W/S/Sum):	3/3/3		
<i>Note: You must be registered for credits during quarters you perform <u>any part</u> of the internship work (Including Summer Session) to include writing of reports...this can be spread over multiple quarters. You are expected to register an appropriate number of credits based on anticipated hours worked BY Quarter (Example: Working 120 hours during Summer = 4 Credits Summer Enrollment).</i>			

Section 3 – Organization for Internship	
Organization Name:	City of Bellingham Parks Volunteer Program
Intern Supervisor Name:	Ryan Robie
Mailing Address:	2221 Pacific St. Bellingham, WA 98229-5341
Email Address:	rarobie@cob.org
Phone Number:	360-739-3366
Description of Duties (Or Attach Job Description): Planning, prepping, and leading events offered by the Parks Volunteer Program including Saturday Work Parties. These work parties guide and assist volunteers in completing various restoration projects in the city parks and properties. Additionally, working to manage restoration sites and maintaining the City of Bellingham native plant nursery. Some of the skills that will be utilized in this position include volunteer management, plant identification, ecosystem restoration planning, and environmental outreach and education.	



### Section 4 – Learning Objectives

What do I intend to learn from this experience: (Be as specific as you can)  
 I intend to gain experience in many different areas throughout my time in this position. I hope to learn more about environmental city planning through observing the city's programs and how they operate, as well as gain experience organizing them myself. I also intend to learn more about native plants and plant identification, as this position requires this knowledge and will be a great learning experience through interacting with invasive species and planting native plants. Through working in the native plant nursery I believe I will be able to learn more about these plants than from a classroom setting. This position also entails spending a lot of time outdoors in local parks and trails, and I hope to become more familiar with my local environment this way as well. I also am eager to participate in trail restoration projects as I am very interested in ecological and environmental restoration, and I will get to see the process on a smaller local scale. Below are the learning objectives of the Department of Environmental Sciences. By the end of this internship I will be able to write about how my new skills meet at least several of these program objectives.

- Apply quantitative skills to environmental issues
- Apply critical thinking and analytical skills to environmental issues
- Write and speak effectively to professional and lay audiences about issues in the field
- Use theoretical knowledge of environmental sciences in real-world applications

How does this experience contribute to my educational or career goals:  
 As an environmental science major, this position builds my knowledge about native plants and species and will teach me more about the ecosystems we have locally. I will be able to interact in the field with them and my learning will be hands-on. For my career I have been gaining interest for some time in restoration and work with public parks, and this experience aligns with that. I hope to see firsthand how restoration works on a smaller local scale, as well as how a city handles restoration efforts. I am interested in being a part of projects like these in my career, and I believe this position would contribute greatly to building skills of someone who works in restoration. I also hope to learn more about the planning aspect behind these projects and the jobs that contribute to that.

Quarter by Quarter Requirements for Satisfactory Grade for Internship (Faculty MUST specify their requirements):

### Section 5 - Deadlines, Evaluation, and Assessment (Completed by faculty advisor)

Meet with Advisor: _____	Additional Learning Objectives (as assigned by faculty)	Yes <input checked="" type="radio"/>	No <input type="radio"/>
First Draft Due: _____	Oral Presentation Required	<input type="radio"/>	<input checked="" type="radio"/>
Final Draft Due: _____	Daily/Weekly Log Require	<input type="radio"/>	<input checked="" type="radio"/>


### Section 6 – Students Certification

I certify that I have read the University Policy on Risk Management Considerations for Student Internships and I will report any injuries suffered while performing internship promptly to WWU.

<https://policy.wvu.edu/POL-U2100.03-Managing-the-Risk-of-Off-Campus-Experiential-Learning-Programs>

I will endeavor to represent myself and my college well and will abide by the relevant policies, procedures and ethical standards of the university and my internship organization.

I understand that **30-hours of work per credit earned is expected** for an internship. I understand that I am expected to enroll in a number of credits commensurate with hours worked each quarter.

Student's Signature/Date	 Oct 9, 2023	Chloe Bibb
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### Section 7 – Internship Site Supervisor Certification

I have reviewed the student's indicated learning objectives and on behalf of my organization agree:

- To enrich the Student's knowledge by orienting him/her to the occupation, the work setting, and the responsibilities relating to the assignment
- To regularly evaluate/provide feedback to student on progress, projects and areas of growth
- At or near the completion of the assignment to provide an evaluation of the student's performance
- To review and approve the Student's Learning Plan and communicate with the college if areas are not going to be met.
- To supply the student with, and abide by the organization's policy against discrimination and/or harassment in the workplace
- To contact the instructor or the College of the Environment Internship Coordinator (360) 650-3646, ed.weber@wvu.edu should any problems arise

Internship Site Supervisor Signature/Date	 Oct. 13, 2023	(Ryan Robie)
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### Section 8 – Faculty Advisor Certification

I certify that the student intern and I have reached agreement on the learning objectives and academic expectations for this experience. I have assigned appropriate educational requirements for each quarter of the experience. These objectives are challenging and enriching to the student's academic and/or career goals. I will award grades after satisfactory completion of all learning objectives assigned for each quarter registered by student. I have counseled student on registration requirement during quarters in which work is done.

Faculty Advisor's Signature/Date	 Oct 9, 2023	(Erica McPhre-Shaw)
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### Section 9 – College of the Environment Internship Coordinator

Actions:

1. Review Agreement
2. Update Course Override
3. File Agreement in Student Records
4. Communicate with Employers as necessary during internship

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### *Introduction*

I began my internship with the City of Bellingham on October 6<sup>th</sup>, 2023, and will have my last day on June 29<sup>th</sup>, 2023. The internship position title is “Environmental Restoration Intern”, and specifically I am tasked to work with the Parks Volunteer program. This city program runs community restoration work parties every Saturday from September to June, where citizens can volunteer their time to participate in local restoration efforts in city parks. The projects usually consist of invasive species removal and native species planting, but occasionally other opportunities are present. The role of the intern in this position requires setting up these work parties and assisting in running them. Interns are also expected to help volunteers with any related questions and use their education and expertise in environmental topics. Other aspects of this position include helping with school stewardship programs where local schoolchildren are able to go on field trips and participate in restoration projects. Through this internship I am also a member of AmeriCorps through the Washington Campus Coalition with a term of 300 hours.

### *Internship Structure and Description of Duties*

Each work party we complete requires a preparation day beforehand. Fridays before the work parties are our site visit and planning sessions and pack our tools and prepare for the next morning. After we visit the site and take note of what invasive plant species are prevalent and which ones will be our focus, we go over our plan for the next day and confront any unique challenges that the specific site might possess. Once our team is familiar, we transition to loading our tools that we provide for the volunteers and plants from our native plant nursery if planting is in the work plan. My duties on Fridays are to utilize my plant identification knowledge and help load up tools. The following morning we meet again before the work party is scheduled to set up

and prepare to instruct volunteers. The other interns and I in the program are responsible for leading small groups of volunteers. This involves educating members of the public on native plant and ecosystems, and most importantly teaching them how to identify different plant species so they can be aware of which ones are invasive and our targets for removal. The concept of what makes a species invasive and why is a big point that we instruct on. If planting is included in our work party plan, we also demonstrate how to plant native species. Along with instructing volunteers we often personally assist with the removal and planting efforts. After the work parties are over interns clean up and maintain the tools that were used. Other duties of this position include working in the City's native plant nursery in order to keep the plants healthy and thriving before they are placed in our restoration zones within our parks.

### *Learning Objectives*

As my primary focus in completing this internship is to further my education in the field of environmental sciences, I began this position with several related goals. Personally, I hoped to learn more about environmental city planning through observing the city's programs and how they operate, and practice organizing aspects myself. I intended to learn more about plant identification and become more familiar with my local environment and ecosystems as the position was completed almost entirely outdoors. I also intended, by the end of the internship, to gain new skills through this program that met several of the College of the Environment program objectives which are listed below.

- Apply quantitative skills to environmental issues
- Apply critical thinking and analytical skills to environmental issues
- Write and speak effectively to professional and lay audiences about issues in the field



- Use theoretical knowledge of environmental sciences in real-world applications

As I am writing this a few weeks away from my end date for my position, I can proudly say that I have met all of my personal goals that I had set and gained skills to meet the program goals effectively. The internship gave me great insight into the process that the City goes through not only to carry out their restoration projects, but the planning behind them as well. I got to observe my supervisors create these plans and change them as problems arose using their backgrounds in the field of environmental sciences. Occasionally the interns were also able to help problem solve and alter plans as issues arose, which very much helped me gain confidence and understanding of the planning aspect as I'd hoped. Plant identification skills were utilized every day of the internship, with each day resulting in new things learned about local and invasive species. I personally feel very familiar with many local plants at this point in time and have been able to instruct countless others on identification myself after learning from my supervisors. This aspect, along with working outdoors has improved my skills as a scientist, giving me increased expertise in plant biology and ecology as well as field experience where I was able to learn outside of the classroom.

Additionally, I believe I have gained skills that have aligned with the program objectives. The objective I feel I have gained the most expertise in is speaking effectively to professional and lay audiences about environmental issues in the field. My position required a lot of education given to members of the public about environmental issues. Volunteers working on our projects came to us with varying degrees of knowledge about environmental issues and the tasks we were completing, so I was able to work on explaining environmental concepts in varying degrees of intensity and detail. I gained confidence in what I knew and didn't know about environmental issues and topics while doing this, and got the opportunity to go to my

supervisors and ask questions to get rid of the disparities. I was also able to converse and discuss environmental issues and topics with peers and other professionals in the field, as our city program partnered with many other programs to conduct our restoration projects. Non-profits like the Nooksack Salmon Enhancement Association and Whatcom Million Trees were frequent professional associates, with many opportunities for interns to learn things from and discuss concepts with. I also believe I was able to apply critical thinking and analytical skills to environmental issues, as being in the field led me to new opportunities to explore concepts and gave me new questions to ask about topics in plant biology and ecology, as well as issues like habitat degradation and environmental disturbances. These exposures required me to think more critically about these topics once I was faced with them head on and as an active participant in trying to restore pieces of nature. This program required me to take concepts I had learned as a student in the environmental sciences program and apply it to the real world around me through application of my knowledge to understand the work I was doing, for myself and to be able to educate others about it.

#### *Contribution to Educational and Career Goals*

This position greatly contributed to my educational and career goals. As an environmental science major, I learned a lot about native plants, plant biology, and ecology. These are topics within the field that I am greatly interested in and I am thankful to say that this position vastly improved my knowledge in each of these concepts. My experience with these topics now extends to the field and not just the classroom. Throughout my time as a student I have been gaining an interest in working in the restoration sector, and this opportunity has given me professional experience. I was able to see the process of smaller scale restoration projects and how local government organizes them, as well as personally participate in these projects to gain

understanding of how they get accomplished. Both of these things have set me up for further exploration of the restoration field and the experience has opened doors for me as the experience I have gained has made me more knowledgeable in the subject and more capable of being a part of teams in the future that conduct restoration projects.

### *Conclusion*

My experience as an Environmental Restoration Intern with the City of Bellingham has been extremely beneficial to my education in the field of environmental science and has given me professional experience with restoration and local government. I have been able to gain field experience with performing restoration projects as well as identifying species and taken on the role of an educator to the public on environmental issues and scientific topics. My term has resulted in me gaining skills that meet the College of the Environment's program objectives for an undergraduate, and I am now both more knowledgeable and confident in my skills relating to each of these areas.