



2022

## City of Bellingham Parks and Recreation Environmental Restoration Intern

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# COLLEGE OF THE ENVIRONMENT



**Internship Title:** Bellingham Parks Volunteer Program Environmental Restoration Internship

**Student Name:** Zach Griffin

**Internship Dates:** 9/17/2021 - 4/9/2022

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**STUDENT SIGNATURE** 

**DATE:** 5/30/2022

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*My Learning Objectives:*

- Learn and explore different environmental restoration planning methods that improve upon local ecology (removing non-native/invasive flora, maintain trail standards, sustainably managing vegetation) and environmental quality of recreational/open space.
- Work with the local municipality to effectively manage a volunteer program to get local citizens involved with their local parks, giving back to the community.
- Build upon valuable skills which can be used as stepping stones towards future positions such as taking a leadership role, teamwork collaboration, and using robust communication methods to successfully complete projects.
- Learn how to coordinate, mediate, and effectively work with a diverse array of individuals with varying degrees of outdoor/environmental education, perspectives, and experience.
- Getting volunteers to be engaged, collaborating, and working together in a way that expands their outdoor experiences and relationship to nature in a positive and healthy way.
- Learn about and facilitating sustainable community-based programs that incentivize citizens to form sustainable connections with other citizens, partners, and city departments.
- Expand knowledge of native/invasive flora attributes and identification.
- Learn about working with different community partners and stakeholders.

*Internship Reflection*

Getting the opportunity to be the Environmental Restoration intern with the City of Bellingham Parks Volunteer Program was an enriching invaluable experience for me, both personally and professionally. Despite having to unfortunately leave the program sooner than I anticipated, due to issues with financial aid dispersal and their inequitable credit requirements, I still walked away with a plethora of achievements. And although this internship doesn't have any direct connections to the urban planning profession, there are still multiple takeaways from this position that I strongly believe are transferable skills to any future planner. I was able to positively interact with multiple community members, local municipal organizations, and community-based programs throughout my time, all the while developing professional connections along the way. In fact this position opened up a lot of doors as I was able to meet different city staff members, some of whom planned exclusively for parks/greenspaces.

First and foremost, the biggest takeaway from this position would have to be the definite improvement of my leadership, teamwork, and communication skills. Coming into this position, I struggled heavily in all three departments. It was one of my greatest anxieties since it's essentially what being a group leader requires. My experiences and coworkers gave me a positive environment where I was able to grow as a person and develop upon these skills in my own time. An environment where I could let my roots grow, make mistakes, and improve without fear of excessive reprimanding. My leadership skills were sharpened from the experience of managing small to large volunteer groups in order to successfully complete set out project tasks. To get the desired benefits of our projects, they need to be done correctly. I learned that there are hundreds of non-intuitive mistakes you can make when planting a tree that will kill it! So this is where those skills come in handy. Leadership also comes with making important decisions, sometimes on-the-fly, and being prepared to a point that people can depend on you for information and organization. There were many times throughout this internship where I was put into a leadership role, even leading a few work party events myself.

As with teamwork, this was improved through general experience over the course of the internship. I've learned it's very important to understand that a lot can get done when we all work together. This is especially true in regards to the climate crisis, community-based urban planning, or sustainability oriented developments. For volunteers, it was an amazing opportunity to see how much they could achieve when coming together as a community, even if it was merely removing blackberry brambles. With communication, I had outside help from others. Learning how to communicate effectively in a way that maximizes others responsiveness, but also learning how to communicate when you need help. The different plant presentations and the intro/closing speech at every work party gave me a chance to sharpen my ability to speak confidently about important information to large groups of people. This in hand helped with

being a leader. For an empathetic leader who can savvily communicate to their group, is a leader that earns respect. Before this position, I had great difficulty taking initiative to say something if I saw something and often shied away from leadership role positions. This internship has definitely proved me wrong about myself. Moving forward I feel more confident in my professional ability to lead, as well as being able to positively interact in a meaningful way with others. My leadership skills can definitely aid in higher careers where it'll be greatly needed. Being a solid leader is important because you then become a solid foundation that others can reliably stand upon. Elevating my community and helping myself through helping others.

In regards to planning theory, this position had some key takeaways for me. There were many times I was shown the true value of community. During work parties, I was able to meet multiple community members, extend my network connections, and be an ear to listen to their concerns. I met neighborhood leaders and citizens who were actively engaged in civic events that improved upon their local community. A good sum of these connections and insights from my interactions were even extremely useful to the projects in my planning capstone course! In fact one of the guest speakers who visited our class to help with our report was one of the volunteers I had led a week prior. He told our planning class about how he wanted to see more successful community based programs such as my internship.

I had volunteers who were sharing thumbdrives of music for me to listen to. We had meaningful discussions regarding contemporary issues of concern while working. We traded recipes and nerded out about plants. There were several moments people told me working with other community members outdoors to give back to their shared green spaces was the best part of their week. All in all, it was the most worthwhile community engagement that I will always carry with me when moving through the planning profession. It is truly the people which make the parks.

Regarding sustainability-oriented planning, I learned about the value and importance of our public green spaces and connected network of underdeveloped trails. Improving upon a community's ability to travel safely and conveniently via foot, chair, or pedal is essential in progressing towards a more accessible, inclusive, and equitable city. This kind of a community is one that provides multiple diverse transportation options in regards to how community members, especially underserved ones, access greatly needed services, such as;

- affordable health care facilities
- schools
- work or opportunities for employment
- social gatherings
- open green spaces/parks/ recreational spaces
- grocery stores with affordable + healthy food options
- opportunities for civic/social engagement

Being a planner focused on improving pedestrian/bicycle amenities, diversifying access to efficient transportation options, thereby increasing community equity and accessibility, inherently has a multitude of benefits. It's crucial that planners and policy makers develop quality, safe, and comfortable facilities keeping in mind the diverse array of users. A robust system of multiple transportation options can be a great community equalizer. Mitigating inequitable negative externalities of auto-centric development and potentially transitioning away from extreme car dependency. An equitable pedestrian-bike oriented city improves the overall community physical/mental health and the safety of non-motorized users. As well as increasing marginalized citizens accessibility to work, school, grocery stores with healthy food options, affordable healthcare, and other basic civic activities. (Sandt et al, 2013)

Following this thinking, the merit of Bellingham's existing underdeveloped pedestrian right-of-ways (ROW) should be considered in planning. They're successful for their complementary biophilic aesthetics, walkability, off-street placement, accessibility, low ecological impact, and established connectivity to many outdoor shared spaces. A variety of transportation options provide opportunities for social interaction usually missed in a car. They increase appreciation for our community's natural areas and resources. This combination of alternate transportation options, "increased social opportunities and appreciation for our surroundings, contributes to our sense of community, and may result in an increased willingness to participate in local government, volunteer for emergency services, or assist with organizing events..." (Williams et al, 2008).

I improved upon my knowledge of native and invasive plants with the aid of research presentations and general use of info during work parties. A lot of what I learned about these plants in turn gave me a chance to be a foundation of knowledge for others. It also helped me understand how ecological systems work which in turn improved the overall quality of my work. Things are a lot easier when you fully understand what you are doing and why you're doing it. It was such a pleasure to give volunteers the opportunity to learn and positively engage with the natural world. There were many times a volunteer asked me a question and after answering you could always see in their eyes that their mind was simply exploding. Whether it was general information about fungal networks, using mulch, nutrient cycles, individual plant species tidbits, or even weather; it seemed to bring people so much joy to learn something new about the world around them. It was a privilege to be there to facilitate that.

Not only is the ability of a community to engage and interact with their outdoor spaces something that is beneficial to planners alike, but also merely trusting in the ability of a community to do good. I learned this secondhand through managing groups. They were more



responsive when I trusted in their ability to take care of themselves and do good. A theme that is up and coming in contemporary planning theory. This came across positively in much of the volunteer feedback my supervisors received. A lot of them claimed that I was not patronizing and gave just enough instruction and room to foster a comfortable space. In return, volunteers followed my instructions dutifully, took care of our tools, completed project tasks successfully, and had a great time while doing so. Amy Brown, the late program coordinator, said to me, and I'll never forget, that in her experience if things are more accessible and streamlined then the volunteers will be more willing to do the work. Meaning that if you provide quality accessible infrastructure, more citizens will engage civically, interact with, and support their community. An important lesson to any up-and-coming planner.

There are many other valuable takeaways I garnered from this position such as being able to work like water. The successful ability to have a balance of structure and flexibility throughout many aspects of work and life. This guided me through work parties and all the tasks I needed to perform. There were a lot of times things did not go according to plan, so it was important to have the ability to adapt to changing conditions on the fly. Having a planned structure in mind but with the right amount of flexibility for any adversity, which no one can divine. Too rigid of structure and you get toxic hierarchies and systems of bureaucracy which strive to be so efficient they become inefficient. Too loose of a structure becomes chaotic and no one will want to invest into the work. As a planner this philosophy is invaluable. Moving forward into a very uncertain era, regarding the climate crisis among many others, planning for the community should have structure, but room for flexibility.

Throughout this internship, I have successfully met my learning objectives and will use these experiences to aid in a planning, or related, profession. I've been able to interact with multiple organizations, community members, and stakeholders all the while enriching my

knowledge of local plant species. Work party projects have taught me different ecologically informed ways that general urban ecology can be improved. There are many inexpensive, sustainable, low-impact development projects that can increase multimodal connectivity, community health, and urban environmental quality. I've improved upon many professional skills through orienting and teaching many volunteers such as leadership, communication, and teamwork. As well as made many new friends and lots of wonderful memories. I was able to grow as a person and as a planner with the support of the people around me. Moving forward I am more confident in my ability to make positive changes, successfully engage with the community, and land a position in a planning or related profession. I have no doubt these experiences and newly acquired knowledge will aid me in future endeavors.

## 2021-2022 C.O.B PVP Weekly Internship Journal

<i>Dates Worked</i>	<i>Work Party Details</i>	<i>Notes</i>
9/17-18/2021	<ul style="list-style-type: none"> <li>- Friday Prep Day</li> <li>- Squalicum Creek Park WP / Willow Spring Native Plant Stewardship Course Field Trip</li> </ul>	<ul style="list-style-type: none"> <li>• First preparation day with the COB Parks and Recreation Department PVP (Parks Volunteer Program) team; Amy B., Shelby K., and other WWU intern Janie. Had a formal meeting to discuss the logistics and details of the internship position. Along with the prepping info for the first work party the next day at Squalicum Creek Park. Was given a binder filled with tons of information about job duties, anatomy of prep day and work parties, proper tool maintenance, informed sustainable landscaping techniques, a list of invasive and native plants commonly found in Whatcom County/ western Washington. Did introductions and walked through the responsibilities of PVP staff.</li> <li>• Toured the Parks and Recreation Department facilities and got to meet some of the other full-time paid staff. We learned where certain bulk items are kept in case we needed to stock boxes required for the work party's. After the tour, I was feeling pretty optimistic and wonderful that I would be gaining experience here, in this type of work. I felt like this would be a perfect career sector for myself as the work did not seem like work. I felt good about what I was doing, passionate and self-informed about why I was doing certain tasks, and the work feels like a calling. This internship seems like a really great way to build experience to leverage myself into this line of work.</li> <li>• Learned about prepping tools, organizing them so they would be ready once unloaded from the truck. Amy is really insistent about us using a system to make the work more efficient. For example, having a printed inventory list of all the tools needed for Saturday's work party with two boxes for check marks. One for inventory when loading the truck so we know we have all the correct needed tools, and one for inventory when the work party is over so we know that they are not missing or stolen.</li> <li>• Amy says that there needs to be a nicely made booklet with pictures, in color, of native and invasive species. One that can be easily flipped through and comprehended to make it easier for everyone. Might be a potential project I would be interested in completing, especially when thinking about my goals for this internship of increasing plant knowledge.</li> <li>• Viewed work site at Squalicum Creek Park. It is located in the back on a southwest hillside bordering the park. It is a western neighbor to the headwaters of Willow Spring, which is a tributary creek of the salmon stream, Squalicum Creek, eventually dumping into Bellingham Bay. Apparently a family of beavers have moved in and plugged up Willow Springs. Now it looks more like Willow Pond. Amy says that this totally ruins the plans that the P&amp;R Department had for the small creek. In my opinion, I believe that beavers have great ecological benefits and if we wanted to improve the ecological health of the Squalicum Creek watershed, not removing the beaver would be the way to do so. More research needs to be done to weigh the pro's and con's of beaver intrusion. Should we regard them as invasive?</li> <li>• I admire the long-term, sustainable, and ecologically informed landscape planning that is going on behind these projects. It makes me happy to see that park, or landscape, planning in the city is thinking</li> </ul>

		<p>ahead several generations in all aspects. For example, the hillside used to be barren disturbed soil since its previous use was an industrial pit before park operations. Amy described it as an eyesore and a city emblement since she lived here before it became a community park. So it is less of a restoration project, and more of a rehabilitation one.</p> <ul style="list-style-type: none"> <li>Planned ‘pods’ of selected native (with some outliers such as <i>Acer palmatum</i>, Japanese Maple) plant species are placed at least three feet apart from each other. This gives their roots and above ground body room for growth. Species are selected based on the order of ecological succession. Smaller first-successional vegetation; snowberry bushes, red alders, garry oaks, mock orange, hardhack, pacific ninebark, thimbleberry, red-flowering currant, red-osier dogwood, and osoberry. Coniferous saplings are going to be added later down the line once these native shrubs have established a healthy biotic community. With high-nutrient soil from constant mulching and established fungal mycorrhizal relationships that will aid development of tree saplings and increase native fauna habitat/food sources. In essence, it seems as if we are mocking the natural succession of forest vegetation in order to establish a healthy urban micro-ecosystem that potentially could improve local ecology. In the end, the hillside should be completely reclaimed and portray a mosaic of native coniferous trees, deciduous trees, and shrubs surrounding this community park.</li> <li>Got to work with Bev, one of the P&amp;R’s Park Steward Volunteers, who, like myself, is a passionate plant nerd! So I really scored on this one. Our section dealt mostly with the diverse array of invasives; himalayan blackberry (<i>Rubus armeniacus</i>), common tansy, everlasting pea, teasel, and English Holly saplings. I shadowed Bev while she walked the volunteers through basic safety precautions, the mulch demo, invasive removal, and the like. What I really loved about her was the way she interacted with the volunteers. Bev was engaged and engaging her audience. She made sure most of the information was visual for higher understanding. She even had cool little tidbits to keep people’s attention. Although it may have all seemed pretty surface-level, there was a lot going on behind the scenes to make such a nice presentation.</li> <li>Once we started to work, I began to panic a bit. I haven’t really been in a position of authority with most of my previous occupations. So I did what I knew best and started to pull out invasives. While doing so I interacted with some of the volunteers individually, making sure they were pulling the right plants. One lady told me about her previous college experience in California learning dying indigenous languages! Another talked about his garden and how helpful these work parties had been, teaching him what plants were beneficial for the surrounding environment, and how to remove invasives efficiently.</li> <li>We didn’t get to debrief this time around, but it is only the first work party. There are a few things that I needed to improve on for next week.</li> </ul>
9/24-25/2021	<p>- Friday Prep Day  - Squaticum Creek Park WP /  Climate Action Week with  NSEA</p>	<ul style="list-style-type: none"> <li>This was the first work party where Janie, my co-intern, and I were to lead the groups on our own. Amy would be doing other work such as baling weeds into the back of the truck, which I will say is quite impressive given that it is such a strenuous task and she has been doing it for ~10 years! Shelby was the floater, coming around to groups and making sure everything was running smoothly. Both were also in charge of sign-in’s and being the welcome wagon for volunteers.</li> <li>We removed the same invasives as last time since we were located at the same site again. This time I think I had a sharper focus on what</li> </ul>

		<p>needed to be done and the expectation of myself. I stepped up to the plate as a person of authority with my group, but in a positive way. For the first people came to me as a source of information. Volunteers asked me so many questions about plants and I found myself getting really ecstatic answering each one. Not only excited, but confident in my answers. It felt good to help others and to be that person that volunteers could look up to and rely on. I have never been in this position. I did make an error though which I know I will grow from. A volunteer asked me what a certain stand alone plant was. It didn't look like it was planted here, much like the other natives. I correctly identified it as Douglas spiraea (hardhack, <i>Spiraea douglasii</i>) which is the silver lining, but mistakenly told them it was invasive. It wasn't until we got back to Park Op's, that my supervisor Amy told me it was a native. Now everytime I see Hardhack, I think of that situation, and I will probably never forget it. I see that as a good thing!</p> <ul style="list-style-type: none"> <li>• One of the outdoor neighborhood cats that was playing amongst our ankles while we worked caught a live snake and ate it in front of everyone. That's when I met Asher! Another cool volunteer with a devoted passion for the outdoors. I will say that before this internship I thought I was alone on an island, in terms of having a holistically biocentric outlook on life. It has caused me great sadness. And now, meeting such passionate individuals who love these biotic entities, who can see outside of their human selves, gives me great joy and hope for the future.</li> <li>• Once all the invasives were removed, and mulch donuts were placed around the natives, the area looked a lot better. By removing these invasives we give the native plants a chance to establish themselves. They also have less competition for resources such as air, light, water, soil nutrients. It was amazing to see volunteers learn about plants and grow from the experience.</li> <li>• Got to do the mulch demo for my group. Much improvement from last time since I didn't quite have the full understanding of what we were doing. My mulch donuts were wonderful and in turn so were the volunteers since they used my demo as the example. Kids were shouting with joy and assignment, running up and down the hill with their sleds filled with wood chips. One was yelling out, "Mulch! Mulch! Get your fresh mulch here!" as if he were selling newspapers. It made me smile!</li> <li>• When we returned to Park Op's, all of us were able to debrief as a group. I think that the debriefings are tremendously helpful. It was time to reflect on our experience with the work party. Communicate with the other members of the groups what were highlights, what were new experiences, and what mistakes we made. These mistakes we would reflect on and brainstorm how we could mitigate them for next week. For example, we agreed on inventorying tools at the site while we are loading them up into truck, so we can streamline the process. If any are missing, we can search for them. Amy is really good about giving "feedforward", which is what she calls feedback. Feedforward is critiques or anything that can help a person grow and become better. It is not meant to make the person feel bad, or to tear them down, but rather to give them an objective view of their work and highlight what they can do to be better. It doesn't have to be work, it could be life too. That is why it is called feed-forward. Because you are moving forward as a person with the information.</li> </ul>
<p>10/1-2/2021</p>	<p>- Friday Prep Day - Big Rock Garden Park WP</p>	<ul style="list-style-type: none"> <li>• Last work party was the first that us interns led our groups individually. This time, it was a work party where Amy wouldn't be</li> </ul>

		<p>present. So it was up to us to make sure everything ran smoothly. We had to depend on ourselves to get the work done, and to get it done right!</p> <ul style="list-style-type: none"> <li>I didn't realize that when working with the community/public, there are so many different things to think about or consider. For example, Shelby said that accessibility was a huge thing we, as a community-based program, needed to be aware of. That was something I had never given thought to. Soon I was constantly thinking about accessibility for volunteers. In the way that I laid out my tools, how we presented important information, how I distributed tasks. My supervisor in a debrief once said something very insightful. "In my experience, if things are more accessible, easier, and streamlined for the volunteers, they will be willing to do more work for you". I noticed this during the work party. I was kind, but firm. I was friendly, but made sure I had respect for my position. I prepped my intro's and information the night before in a way that would be easy to listen to and comprehend, but not in a way that was insulting. I gauged volunteer experience and information in a fun interactive way that I used to select what I should say. For example, most of my group had a lot of landscaping experience and already knew about <i>Rubus armeniacus</i>, so I skipped the planet identification part and went straight to the information on proper pulling. My group went the extra mile and beyond. They took initiative and were able to completely de-invasive my entire section which all of us didn't think we would be able to.</li> </ul>
10/8-9/2021	<p>- Friday Prep Day - North Cornwall Park WP with NSEA</p>	<ul style="list-style-type: none"> <li>Our partner for this work party, located on the northside of Cornwall Park, will be NSEA (Nooksack Salmon Enhancement Association). This is our first time working with their interns, so I will get support managing volunteer groups. Amy notified us that with the coming of winter we will need to be able to do twig identification since most of the natives planted will lose their leaves.</li> <li>Also had the first check-in meeting with Amy and Shelby to discuss my goals and how I am doing so far. The feedback was mostly positive. I am doing a great job so far and should keep up the good work. My goals need to be revised based on some of their critiques. The revisions will be checked at the next one on one meeting 11/5.</li> <li>My zone will be mostly focused on invasive removal (<i>Rubus armeniacus</i> or Himalayan Blackberry mostly) and then mulching around the cleared natives. The site is on the banks of <i>Squalecium</i> Creek, so I need to think about the accessibility of the site and its safeness.</li> <li>Because we were partnered with another group, this work party seemed to have a lot of moving parts. Amy said that the work parties would be increasing in challenges and difficulty as we progress through the year. None of which will feel like we are unprepared if we are consistently learning from the previous work party. Volunteers were eager and enthusiastic to remove the blackberry brambles from their park. Although one woman came up to me afterwards and said I needed to be louder when I spoke to the group, the overall event went pretty well. <i>Squalecium</i> creek was accessible and now in sight after removing the canes which were strangling nearby plants. There was one moment where I had to step away to bale the weeds in the back of the truck.</li> </ul>
10/15-16/2021	<p>- Friday Prep Day - Sehome Arboretum WP</p>	<ul style="list-style-type: none"> <li>This work party was indeed a little bit more challenging than the last one. We did not have the support of Amy on this one and I was the</li> </ul>

		<p>leader for a high-school track team group who were very rambunctious. Even though I have done work parties before, I seemed to unravel with this one. I missed a few things with the intro. The highschool boys of the group did not seem to take anything I said seriously, and the girls mostly stayed in tight cliques and were too shy to interact with me. I tried clinging to the adults the best I could. I made some viable relationships with two people, both of which work with COB and with GIS. One of the positive aspects of this internship is that I not only get to meet the community, but I get to form valuable connections that might help me professionally in the future.</p> <ul style="list-style-type: none"> <li>• The priority of this work party was mainly to remove the invasives. My area mostly focused on <i>Hedera helix</i>, also known as English Ivy. After we had uncovered the understory from the thick carpet of ivy, it was amazing to see how much it had killed off its competition.</li> <li>• There were multiple challenges I was faced with this time around. Being a person of authority is a new experience for me. People come and ask me questions as if I am the fountain head of knowledge and multiple times, I am ashamed to say, I have been cut off guard. It is the worst thing when you are the person of information and you can't answer a question. People also come to me when there are a problem. Most of the problems people bring to my attention really could be solved with a little independent problem-solving. So really I am running around trying to put out small fires. On top of that, the boys in my group refused to do any work and were on their phones the entire time. I am disappointed that I wasn't able to get them engaged enough to participate in only three hours of relatively easy work. By the end of the work party, I felt like my seams were unraveling. These are all things I need to meditate on and improve upon for next time.</li> <li>• One thing I have learned about challenges through this internship is that they sharpen the blade of your skills. We need challenges to improve ourselves so we can take on any task in the future. If you learn to climb the mountain first, everything else will be easy.</li> </ul>
<p>10/19, 10/22-23/2021</p>	<p>- Friday Prep Day - Make A Difference Day (M.A.D.D) &amp; Arbor Day WP at Whatcom Falls Park</p>	<ul style="list-style-type: none"> <li>• On Tuesday, we met in the afternoon to prepare for M.A.D.D (Make a Difference Day) and Arbor Day at Whatcom Falls Park. It is a huge event for the PVP program, which hosts it. Currently around 150 volunteers have registered online for it. The City of Bellingham is partnering with WCC (Washington Conversation Crew) and NSEA to pull off the event. Most of the prep-day involved going over the master plan, including where work zones are, what tools to bring and where to place them, the event timeline starting Friday to the end on Saturday. Everything was thoroughly organized and planned out. It made me realize that it really does pay to be prepared. Plus, how crucial it is to plan and think ahead to avoid catastrophe. Not only did Amy and Shelby have a plan for the amount of volunteers showing, but they also had a plan if less or more came, or whatever crisis that may arise.</li> <li>• We toured the site which could mostly be the portion of forest on the inner bend of Whatcom Creek, just west past the CCC stone bridge with the iconic waterfall. I was placed in zone two which mostly dealt with implementing cribbing, an anti-erosion device, plant native vegetation, mulch the area to pieces, then place large woody debris to block off unofficial shortcuts people have made through the forest. If anything, my site had the most responsibility and work compared to the other zones which made me ecstatic knowing that I could be trusted to independently lead a challenging area. We went over the important logistics of what we were doing: cribbing, planting, closing social trails. Cribbing has many important ecological benefits for the</li> </ul>

		<p>forest ecosystem and is a well-informed sustainable park management technique that thinks several generations into the future. It's meant to catch debris and duff on steep slopes so that the nutrients/soil/mulch don't wash off so quickly. Replanting unofficial social-user trails is crucial for park management because this off-trail usage compacts soil and damages native vegetation. The erosion of soil from foot traffic can destabilize slopes, and in some areas speed up the erosion of the hillside. If near the creek, this soil can dump into salmon habitat and cause a slough of problems for their species. Cribbing acts as a retaining wall to the soil and debris falling downslope. Over time a rich accumulation has formed behind the cribbing that is extremely beneficial to fungal and native plant communities. Altogether supporting a rich and healthy ecosystem.</p> <ul style="list-style-type: none"> <li>• Woke up pretty early so we could get to the site a few hours before the start of the event to prepare. I got to ride with Amy, our main task being to set up the Project Staging Area. Specifically I was to arrange all the extra tools, and organize all plants by zones to be ready for volunteers to grab and plant. There were around 1,000 one and three gallon potted plants containing a diverse variety of native vegetation; vine maple, Pacific trailing blackberry, dull oregon grape, western hemlock, western red cedar, salal, western sword fern, osoberry, and nootka rose.</li> <li>• Preparing the tools was a bit chaotic since there seemed to be a lack of communication and coordination between the leaders of NSEA and their interns. I had to pick up a lot of the slack which lost me time in being able to prepare my zone. During intros I was struggling to project over the waterfall in the background and most of the volunteers seemed to look annoyed about the lengthy barrage of information. I got nervous and stumbled, forgetting some important logistics. Thankfully my partner Abby picked up the pieces I had dropped. Will prepare more for intros next time so they flow better. If I am confident in how I present information, then the people around me will be engaged.</li> <li>• The work party went smoothly in terms of getting the project done with quality and quantity. Something I struggled with however was engaging with volunteers. I seem to struggle talking with people, especially random strangers. On the other hand, I feel like I am dropping the ball if I just remain quiet the entire time we are doing work, outside of giving help and instructions. I'll need to work on engaging community members especially in casual conversation. I'm just very glad we were fortunate to not get our forecasted rain until after the work party was over.</li> </ul>
10/29-30/2021	<ul style="list-style-type: none"> <li>- Friday Prep Day</li> <li>- Julianna Park WP</li> </ul>	<ul style="list-style-type: none"> <li>• Even though this work party was a bit easier, it was still a little bit more challenging than the last one. We again did not get the support of Amy on this one. This means that we were the ones who needed to run the show and manage things instead of relying on the person above us. We were the responsible ones now. On top of that, for this work party, my zone needed to plant hundreds of new natives and then mulch properly around the newly placed plants. On top of that, removing saplings that would otherwise ruin the whole landscaped plan.</li> <li>• The parking at this park was not very accessible for volunteers, something completely out of control but still a problem. On top of that the registration system on the ipad wasn't working. A whole rowing team showed up and all seventeen people needed to individually sign in.</li> </ul>
11/5-6/2021	<ul style="list-style-type: none"> <li>- Friday Prep Day</li> </ul>	<ul style="list-style-type: none"> <li>• This was the first week of our plant presentations! I chose to do Rubus</li> </ul>



	<ul style="list-style-type: none"> <li>- WPP: Cutleaf Blackberry (<i>Rubus laciniatus</i>)</li> <li>- West Cemetery Creek (Salmon Woods) WP</li> </ul>	<p><i>laciniatus</i>, also known as cut-leaf blackberry which is an invasive similar to himalayan blackberry. Just less aggressive and more delicate in form. Janie covered <i>Polystichum munitum</i>, western sword fern. Which is appropriate because this week's work party project will be mostly focused on planting western sword ferns near West Cemetery Creek. We are helping the WCC restore this natural area with native species as part of a plan to mitigate high-erosion from the creek. Janie and I also met with Amy and Shelby to have a check in and go over our revised goals for this internship. So far so good, with a few minor tweaks to my goals. Apparently, Janie and I have the exact same even though this wasn't planned.</p> <ul style="list-style-type: none"> <li>• Thankfully the sprinkles held off until the work party was over so we were blessed with no wind and dry weather. While setting up, Janie and I worked efficiently. Something I've learned working with Janie is that it pays to work smarter not harder. If you communicate often and clearly with your teammate, mistakes can be avoided, valuable input from others can be considered, and work can be completed efficiently. Not only that but working with her has also taught me the value of always thinking ahead. I am ashamed to be writing this because as an urban planner this is crucial. Planning and prepping is useful to avoid crises, or at least be able to handle them in the moment. It makes projects and plans more comprehensive and integrated not only in the goals of today, but tomorrow.</li> <li>• A 50ft dead tree snag also came crashing down right on the spot where I had been giving a planting demo to a group of volunteers. If I would've taken a few minutes longer on my intro, I would've probably been right under the tree. Fortunately, no one was hurt or fatally injured. Although it put us all on edge for the rest of the day, we successfully planted over 400 western sword ferns. This work party I worked on being social and engaging with volunteers.</li> </ul>
11/19-20/2021	<ul style="list-style-type: none"> <li>- Friday Prep Day</li> <li>- WPP: Poison Hemlock (<i>Conium maculatum</i>)</li> <li>- Maritime Heritage Park WP with NSEA</li> </ul>	<ul style="list-style-type: none"> <li>• This week I was tasked with removing Poison Hemlock, <i>Conium maculatum</i>, from my zone among other invasive species. The coniine alkaloids in this plant are extremely volatile and can cause death if absorbed through bare skin, breathed in, or ingested. That being said, this would be a test of my leadership skills amongst volunteers. In the past I've had issues with volunteers not following safety instructions even with numerous reminders. A volunteer not listening to my instructions on how to properly remove this volatile plant without anyone getting harmed would be bad luck. This work party I will be tested on my responsibility and reliability to manage my small group. I'll be partnered with an intern from NSEA so it'll be nice to have the support. During this prep-day, we sharpened our planning skills. From these kinds of factors I was able to reflect on the importance of having a plan to mitigate hazards. It was way more valuable than just playing it by ear and reacting to whatever may happen in the moment. Along with that I learned about the value of having a balance of rigidity and flexibility when it comes to leadership or being an authority figure. There must be a strong sense of organization of structure to systems and management styles, but one must also be capable of becoming flexible in order to keep things moving. I think we've all encountered workplaces or situations where organization or management was either too flexible or too rigid, such as a bureaucracy. And the inefficiency produced by both.</li> </ul>
12/3-4/2021	<ul style="list-style-type: none"> <li>- Friday Prep Day</li> <li>- WPP: Pacific Willow (<i>Salix</i></li> </ul>	<ul style="list-style-type: none"> <li>• Work party was mostly focused on live stake planting along Squalicum Creek near Bug Lake, and invasive removal. Mostly Himalayan</li> </ul>

	<p><i>lucida</i>) - Squalicum Creek Reroute - Bug Lake WP with NSEA</p>	<p>blackberry as usual. I would have the larger group for this work party and would be the only COB person there to manage two zones. I interpreted this as my higher-up's being able to rely on me to not only be an independent problem-solver but be capable of handling any crisis that came up. One of them being that it seemed only COB crew were informed about the project and the NSEA interns were not. This was very problematic. My weekly plant presentation was on Pacific Willow so I understood comprehensively why it was important we were completing this project. The other two species for live staking were Black Cottonwood and Red Osier Dogwood. These are wetland species that provide aquatic and wildlife habitat, filters water, acts as flood control, and stabilizes streambanks. There are many other benefits they have to disturbed wetland sites, but I'll spare those details. You can plant live stakes into the ground because all three species have such a high rooting ability. There was even some evidence of older stakes there that had transformed into tiny saplings over time.</p> <ul style="list-style-type: none"> <li>● On a side note, I admire the planning that goes into this program. Every project is trying to think several decades into the future instead of just applying topical solutions for imagery purposes; for the sake of looking like something is being done. No, each one of these projects are well thought out by a team of very passionate people. The decisions are ecologically informed and holistic in the sense that most of the projects work with the forces of nature, not have nature work for it. Results are coming back as successful. In an intern check-in, my supervisors brought up that I could perhaps use my knowledge with online GIS services to produce an accessible map detailing all the work the PVP has done for Bellingham's community parks.</li> <li>● Although we had to scramble a bit in the morning due to a lack of preparation from NSEA, we were able to get our wheels moving so to speak by the time volunteers arrived.</li> </ul>
<p>12/10-11/2021</p>	<p>- Friday Prep Day - Harriet Spanel Park WP</p>	<ul style="list-style-type: none"> <li>● No plant presentations this week do to a lot of other moving parts. Amy, our supervisor is leaving for greener pastures and Ryan Robie will be helping us from now on with prep-days. Had a little time to say our sincere goodbyes to Amy and get to know Ryan. This week's work party will be at York neighborhood's Harriet Spanel Park removing invasives. A nice easy work party to finish off the Fall season with. This will be our last one until MLK day in January when we have our huge event.</li> <li>● We also had intern check-ins and briefly went over where I am at in accomplishing my goals. We talked about a GIS online story map project that depicts the history of restoration throughout Bellingham Parks and Recreation so that community members can see the positive changes we've fostered. I am having difficulty thinking of other ways I could apply my GIS skills outside of creating a useful story map. The weekly presentations are really solidifying my knowledge of Whatcom County invasives and natives. This is important not only for me, but for community volunteer members. I am thinking about creating a waterproof booklet with pages containing accessible information regarding the native or invasive plants we will be dealing with at the work party. Most of these projects I will most likely be working on during the break, or post-break.</li> <li>● A strong cold front passed through Bellingham Friday evening bringing downpours and violent winds. We were thinking about cancelling, but the majority of the storm passed when we arrived at the park. Winds were so strong they tipped over our outhouse, so we were without a bathroom for the entire work party. My site was a hill that</li> </ul>

		<p>stood out like an island between two access roads. A trail led through it from the park to Lakeway Drive. My section was isolated from the rest of the group, but this is actually a good thing. Much like the last work party, my supervisors felt that I was a reliable individual that could easily be left alone to lead a small group throughout the work party. I've been told this directly and indirectly. In the springtime, I will try to lead my very own work party all on my own. This will test my accrument of leadership, community engagement, and independent problem solving skills. So far I am on a good trajectory towards being a reliable leader that can engage community members.</p> <ul style="list-style-type: none"> <li>• Filled almost the entire truck with removed himalayan blackberry, common tansy, and scotch broom which needed to be pulled out of the ground using a special wrench tool larger than my body. This work party was pretty successful for several reasons. I was able to make community members laugh, be engaged fully with the project, and answer any of their questions. We found several needles and filled three buckets with recyclable litter that had been discarded in the bushes. I got to know community members and make valuable connections. It almost felt like what a politician, or a government employee should be doing. Volunteering many hours, giving back to city parks, and getting to make unconditional connections with community members. They talk about their problems, they talk about what they'd like to see in parks, and what they wish the city would be doing. As an urban planner I can't help, but be a listening ear.</li> </ul>
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<b><i>Dates Worked</i></b>	<b><i>Work Party Details</i></b>	<b><i>Notes</i></b>
1/28-1/29	<ul style="list-style-type: none"> <li>- Friday prep day</li> <li>- East Meadow WP</li> </ul>	<ul style="list-style-type: none"> <li>• Our main priority for this week's work party will be the removal of Himalayan Blackberry and Yellow Archangel from a pocket park in the north Samish neighborhood. On top of that, we will also be picking up litter and planting some more native species; Western Sword Fern, Saskatoon Serviceberry, Nootka-Rose, Red-Flowering Currant, and Tall Oregon Grape. This is the first work party without my two co-interns, Janie and Abby, who've both recently resigned from their positions this month. It makes me nervous not having that extra support, but I am more than willing to take on this new challenge.</li> <li>• The overall event was really successful and went along smoothly. We were even 45-minutes ahead of schedule and had extra prep time to iron out any other wrinkles. Accessibility was the focus here since most of the invasive patches were in moderately difficult to reach areas that required some bushwhacking.</li> <li>• For this WP, I tested using a bottom-up approach instead of a top-down control approach on different aspects of the event to much success. It taught me a thing or two about increasing the ability and accessibility of people, especially the public, to do what you want them to within their own means and ability instead of just strictly enforcing it upon them. I've learned that when providing the necessary infrastructure and increasing the ability of a community resulted in more volunteers working with us and together. <ul style="list-style-type: none"> <li>○ For example, I forgot to inform volunteers that dirty gloves go into a specific bucket at the end of the WP when doing the morning intro talk. Usually when I tell the whole group, it's as</li> </ul> </li> </ul>

a command, which a lot of them forget by the end. So in order to streamline things, I grabbed a random unmarked bucket, placed my gloves into them, and then set it off to the side without telling anyone what it was for. Instead of just commanding and informing people on what to do, I instead trusted their ability to come to this conclusion on their own if I provided the correct infrastructure to support them. At end time, as volunteers started trickling out, all dirty gloves ended up in the bucket as opposed to other WP's. I even overheard volunteers talking amongst themselves, sharing the info about the bucket when it came to cross that bridge. It is really difficult to find that balance between trusting people in their ability to succeed and patronizing them to get them to that point.

- Our priority tasks of planting, mulching, and removing invasives involved creating subgroups of volunteers. I avoided randomly dividing the entire group into three equal sections and telling them where to go, and what to do. Instead, I took a step back and let them sort themselves out based on experience and comfortability. Volunteers seemed to be extremely pleased with this and perfectly sorted themselves into three subgroups. Each group performed at peak levels, with much positive camaraderie amongst them. This is because each group was in an area doing something they were comfortable and had experience with, rather than being randomly assigned to a task. All the volunteers seemed to have a more positive experience with the work. In this scenario, you can see I took a bottom-up approach by increasing the ability of the volunteer group to manage themselves. I don't know what is best for 25 strangers, but individually they do. When volunteers are allocated where their energy is most efficient, the rest seems to fall in place. As they say, you can lead a horse to water, but you can't make it drink. It's the same with a top-down approach vs. a bottom-up one.
- I also do this with planting/mulching demos. In intro talks with volunteers, it is hard to cover everything in such a short amount of time, while also keeping them fully engaged. I usually always forget some important details when it comes to mulching or planting in a way that meets the C.O.B P&R standards. So, a way I've found to mitigate this is by having an end-product example already on display. I do a planting demo during the intro talk showing myself going through the process. Visually going through the steps is better than just telling someone verbally how to do things. It increases the accessibility for visual learners and therefore increases volunteer engagement. Not everything in the demo will be remembered since that is just human nature. However, having the end-product as an example helps validate volunteers on whether they've done their planting/mulching correctly. Each volunteer would ask me if what they were doing was correct. Now they refer to my walkthrough demo and the end product example which has increased the success of how volunteers plant and their confidence in doing so. It also gives me more energy and time to focus on other questions or issues. Again, I have increased the ability of volunteers and provided them means to do what is right instead of telling them what is right

		to do.
2/4-2/5	<ul style="list-style-type: none"> <li>- Friday prep day</li> <li>- Roosevelt Nature Area WP</li> </ul>	<ul style="list-style-type: none"> <li>● For this week's WP, our site will be focused on a moist open woodland clearing near the pathway that connects Superior St. to the Railroad Trail in the Roosevelt neighborhood. Our main priorities are to remove three invasive species that have infiltrated the area; Himalayan Blackberry, English Holly, and English Hawthorn. Each of these species brings their own unique downsides in terms of their effect on the native flora and fauna species composition. Although I'm pretty sure that birds highly benefit from these three species as they not only provide very efficient forms of protective habitat, but provide abundant sources of food. Again all three species were introduced at some point in the past as garden ornamentals that escaped cultivation and are now changing the ecosystems in which they take root.</li> <li>● On top of the usual invasive removal, we will also be planting around several native species, all of which thrive in moist areas such as our work site. We will then put temporary anti-deer browsing devices around these saplings. Mulching everywhere we planted, removing invasives, or where natives already exist.</li> <li>● Again, it felt like the WP was another success. For working in a muddy wetland area on a Saturday morning removing three invasives that are covered with terribly sharp thorns, everyone was in great spirits! I wrote a poem after my brief land acknowledgement that held a positive reception. Had volunteers come up to me and tell me how I brightened their morning. We planted many native wetland species in their ideal places (i.e. planting the Sitka Spruce on a hill close to the water so it would have moist, but well drained soil, and lots of sunlight). Mostly we tackled the Himalayan Blackberry. An issue we ran into during this event were volunteers pulling out the native Trailing Pacific Blackberry. This is something to think about for the next work party; trying to spearhead plant identification. Last time, the issue was that volunteers were putting not only the invasive vegetation, but the sticks and leaves they would find around the site, or the dirt from the bottom of the root. These two situations have made me realize the opportunities of this small event to give people an indirect education about the functions of ecosystems. My lead and I have talked about this many times in debriefing about how there are so many wonderful opportunities for people to learn about the world around them.</li> </ul>
2/11-2/12	<ul style="list-style-type: none"> <li>- Friday Prep Day</li> <li>- Railroad Trail at Vining St. &amp; View Ridge Dr. WP</li> </ul>	<ul style="list-style-type: none"> <li>● Our site this week is a patch of land in between Vining St. and the Railroad trail within the Alabama Hill neighborhood. We will join forces with Park Steward, Richard, and the new Park Ambassador, Kylie, to help clear the area of invasive species, plant native shrubs/trees, and mulch the hell out of the entire area. It's quite a lovely site for such a small bit of land that's somewhat out of the way. With some t.l.c, I have no doubt it could become a small public open space for local residents. It's mostly covered in Himalayan Blackberry, Scotch Broom, Bull Thistle, and different kinds of Spurge. On top of planting natives, we will be caging them temporarily as a way to mitigate late winter deer-browsing.</li> <li>● Caper spurge, aka Moleplant, is a new plant for me that I have never seen, or at least noticed, around Bellingham. It looks like a succulent, closely resembling Daphne which is just Spurge Laurel. Caper Spurge, when broken, is distinguished by its secretion of a milky latex substance. All parts of the plants are toxic to humans and other animals. It is said that the plant deters mice and moles because of its</li> </ul>

		<p>toxicity. In the past it was used as a violent purgative. Instead of composting it, we need to throw it in the trash not only because of its toxicity, but because of its excellent ability to spread through compost piles.</p> <ul style="list-style-type: none"> <li>• In retrospect, the work party was a terrific success and we had a lovely bit of sunny weather to help us through. Many neighbors walking by thanked us for our work. One even commented how the area was a large unmanageable blackberry thicket at one point, so the work we are doing does come back in spades. The volunteers were engaged and very excited to remove the blackberry canes. I made many valuable connections with different community members, and the volunteers did the same. There were many wonderful opportunities for volunteers to engage and interact with their environment in a positive way. Lots of them asked questions about plants and natural systems which I was able to confidently answer. You could see the awe on some of their faces as they start to think about things they've never thought before. It makes me really proud to be a part of that process.</li> </ul>
2/18-2/19	<ul style="list-style-type: none"> <li>- Friday Prep Day</li> <li>- Maritime Heritage Park WP</li> </ul>	<ul style="list-style-type: none"> <li>• Sick; did not attend work party</li> </ul>
2/25-2/26	<ul style="list-style-type: none"> <li>- Friday Prep Day</li> <li>- WPP: English Ivy (<i>Hedera helix</i>)</li> <li>- Cornwall Park South WP</li> </ul>	<ul style="list-style-type: none"> <li>• This week, our work party was located on a patch of forested land within the southern portion of the very much beloved, Cornwall Park. You could tell, even before the work party began, how much people loved this park and how much it meant to the surrounding neighbors. Our job was the regular rundown. Removing the invasives, planting native shrubs, and then mulching everywhere. Our primary targets were the English Holly saplings and Him. blackberry shoots that were starting to establish. The other invasive was English Ivy, but our area did not have much of it. Which was a bummer since I had made an information video on <i>Hedera helix</i> and had even brought my own jar of laundry soap I made from the leaves.</li> <li>• This work party seemed to be mostly about community and what that means. One volunteer told me how she's new to the area and already made some community connections through our event. A lot of us talked about the sudden uncertainty with the war in Ukraine. It was a moment where, as a group, there was a sense of needing to stick together as a community and help each other out. Volunteers engaged in wonderful conversations about food sovereignty and circular economies.</li> <li>• A major problem we encountered were volunteers pulling native species. The invasives we usually deal with are already established, but this time we were removing establishing shoots. Many of which resemble their native look alikes in youth (Dull Oregon Grape to English Holly, Trailing Pacific Blackberry to Him. Blackberry). Almost every volunteer had initially removed a buckets worth of native vegetation before I came around and sorted out misidentification. I don't blame them. I write about this because it is a wonderful learning opportunity I had between myself, the volunteers, and my coworkers. It is 100% ok to make mistakes, it is how we grow and improve on many levels, not just individually! The most important aspect is to learn from these mistakes. I made the mistake in the beginning of not clearly pointing out the differences between the invasives and the native lookalikes. Now I will know for next time how to improve. It also gave me an opportunity to reflect and improve on anticipating problems before they happen. With volunteers, though</li> </ul>

		<p>they removed a buckets worth of natives, we're able to learn together how to easily identify the invasives, and grew from those experiences. By the end of the work party everyone had become extremely reliable at removal, and all of us wiser for the wear.</p>
3/4 -3/5	<ul style="list-style-type: none"> <li>- Friday Prep Day</li> <li>- Little Squalicum Park WP with NSEA</li> </ul>	<ul style="list-style-type: none"> <li>• The work party this week will be based at Little Squalicum Creek, partnering with NSEA. It will be the usual tasks of park restoration; removing invasives, planting natives, mulching disturbed or planted areas, picking up trash, etc. We have a new intern, Carly, who'll be helping us out for the springtime season.</li> <li>• I made a lot of connections with the community during this work party in a way I haven't experienced before and other interns, both from the PVP and NSEA, felt it too. There was a sense of human connection as all of us across genders, orientations, generations, and nationalities were coming together to achieve a common goal. A lot of the volunteers talked to me about how much the event made them happy, and how much they enjoyed getting to be outside engaging with nature, and with other community members. I kept reminding volunteers, since it kept coming up as a theme in all our conversations, that we can accomplish a lot when we all work together. And it doesn't even have to be about removing blackberries. It feels good to be able to facilitate an event that people felt they could safely be themselves at. A time and a place to give back to local parks and reconnect with their fellow man.</li> <li>• I really wish that other city organizations and entities could emulate this same kind of community connection that we get at our Saturday work parties. Whenever really important politicians come, they only show up in the last fifteen minutes, don't participate in any of the work with volunteers, engage in surface-level conversations for PR purposes, and then promptly leave after giving a speech about community when they've missed the opportunity to really get to know theirs.</li> <li>• In the future, if I am ever given the opportunity to become an urban planner or a municipal office representative, I want to keep this solidly in mind to avoid following suit. I aim to become a planner that listens to everyone in the community. One who plans for, not just controls, the needs of the community. Not clinging to the positions' prestige or the profit-incentivized, ("economic-development") projects. As a planner I feel it is important to keep an in-person connection with the people you're planning for. Building off of previous work party experiences, I found more success in increasing community members accessibility and ability rather than implementing a top-down control approach. This way I can understand the needs of others, outside of my own. So I avoid planning for a community based on what I think is good for it, versus what actually is.</li> <li>• Nowadays planners seem disconnected and out of touch with their community. Quickly becoming angry or resentful when the public doesn't automatically accept their grand planning visions. It turns into a toxic culture of Us, the planners, versus Them, the public. Planning obviously for an exclusive experience, planning obliviously for an exclusive community. How is building more lanes of traffic in the climate crisis era thinking about the community members 50 or 100 years from now? How is letting private developers build unaffordable housing, causing a whole slough of other problems, helping the city's housing crisis? Why are we "revitalizing" alleyways and downtown spaces, the same spaces that a portion of community members are suffering and dying in? As planners we need to do more than just be</li> </ul>

		tools to maintain a status quo, especially when it is oppressing and causing suffering to some parts of the community, no matter how out of sight it's kept.
3/11 - 3/12	<ul style="list-style-type: none"> <li>- Friday Prep Day</li> <li>- WPP: Pacific Ninebark (<i>Physocarpus capitatus</i>)</li> <li>- WP at Parks Native Plant Nursery</li> </ul>	<ul style="list-style-type: none"> <li>• For this work party, we are potting bare root native plants for our nursery. These are the same pots we use for planting at our work party so it was very important to ensure high-quality potting. There are so many ways that a small shoot can die if not potted correctly. I saw this as a great opportunity to get people to learn some more about plants and how they function. All of our volunteers, in both the AM and PM session, had a great time socializing with others around a giant pile of dirt. There were some small kinks here and there. Midway through the first session, Carly realized her group of volunteers were placing different species in the same group, instead of keeping them separate. I was able to quickly do on-the-fly twig ID to sort them out. Was very proud of this instance because I fell back on a lot of the research and information I gathered for my weekly plant presentations. All in all, volunteers had a blast and we were able to get over 1,000 plants potted and placed in the nursery. All the while having a good time and creating good memories.</li> </ul>
3/18 - 3/19	<ul style="list-style-type: none"> <li>- Friday Prep Day</li> <li>- WP at Parks Native Plant Nursery</li> </ul>	<ul style="list-style-type: none"> <li>• This work party is similar to last week where we will be potting bare root plants for our nursery. It is different because instead of being a small group lead, I get to do sign-in and be the point person. I got the opportunity to format the work party plan and lead the Friday afternoon prep-meeting. It definitely tested my ability to think two steps ahead, a skill I recently acquired through work in this internship. However, this week was frustrating with balancing the completion of finals with the higher responsibility of leading the work party. On Saturday it felt like the tides were pushing against us at every step. Pots kept breaking and getting stuck, it poured heavily on us during our set up outside, and our outreach items kept blowing away into the mud. A large high-school group attended and we had difficulty getting them to take initiative in helping with mostly anything outside of potting. I became frustrated with volunteers who needed to be repeatedly told basic instructions on how and what to do. Carly was frustrated too since volunteers were not listening to her. The potting quality was shoddy even though we were constantly coming around to check pots and correct volunteers on their soil levels. Sign-in was tricky as it seemed we had every weird scenario in the book; didn't register, already checked-in, under 18 but didn't register, etc. The Park Ambassador, who was not at the work party, kept making on-the-fly changes to our plans in the prep-meeting that weren't really consistent with what needed to be done in the end. And I forgot to pack my lunch, so I worked through the afternoon session on an empty stomach. I felt like I really could've done better with this work party and voiced the disappointment in myself to my lead. She reassured me that I had done my best and it was ok to have a bad day. It's great to have this kind of support from my coworkers, a validation that it's ok to be human. It's a positive environment where I feel like I can really grow as a person and professionally.</li> </ul>
4/1 - 4/2	<ul style="list-style-type: none"> <li>- Friday Prep Day</li> <li>- Lower Padden Creek Trail WP</li> </ul>	<ul style="list-style-type: none"> <li>• Sick; did not attend work party or prep meeting.</li> </ul>
4/8 - 4/9	<ul style="list-style-type: none"> <li>- Friday Prep Day</li> </ul>	<ul style="list-style-type: none"> <li>• No entry; last work party.</li> </ul>



- Connelly Creek WP  
w/ NSEA



PARKS & RECREATION DEPARTMENT - PARKS OPERATION  
Parks Volunteer Program  
1400 Woburn, Bellingham, WA 98229 Telephone: (360) 778-7105



BELLINGHAM PARKS & RECREATION - PARK OPERATIONS  
Bellingham Parks Volunteer Program  
1400 Woburn, Bellingham, WA 98229 Telephone: (360) 778-7105

Intern Work Record

Name Zach Griffin

Date/Year 2021-2022	Time of day Worked	Total Time worked	Task Spent	Site
9/17-9/18	1pm-5pm, 7:30-9pm	12 hrs	Prep day/ WP	Willow Springs
9/24	1pm-4pm	3.5 hrs	Prep Day	Willow Springs
10/1	7:30-3:30pm	8 hrs	WP + Debris	Willow Springs
10/2	1pm-4pm	3 hrs	Prep - debris	B.R.G
10/8	7:30-3:30pm	8 hrs	WP + debris	B.R.G
10/9	1-5 pm	4 hrs	Prep day	OP's
10/9	1:30-4 pm	2.5 hrs	WP @ Cornell	-
10/15	1-4:30	3.5 hrs	WP	-
10/16	7:30am-4pm	6.5 hrs	WP @ Sehome Arboretum	-
10/22	1-5:30	4.5 hrs	Prep	-
10/23	6-5pm	11 hrs	MADD!!!	-
10/29	1-4pm	3 hrs	Prep	-
10/30	7:15-4pm	8.5 hrs	Juliana Park WP	WP
11/5	1-5pm	4 hrs	Prep	-
11/6	7-4	7 hrs	West cemetery	-
11/16	1-3:30	2.5 hrs	Prep	-
11/13	7:15-3:45	8.5 hrs	West cemetery	-
11/19	1-4pm	3 hrs	Prep	-
11/20	7:30-4:30	9 hrs	Maritime Heritage Park WP	WP
12/3	1-5pm	4 hrs	Prep	-
12/4	7am-4:30	9 hrs	Squamish re-plant	-
12/10	1-4	3 hrs	Prep	-
12/11	7:30-3	7.5 hrs	Maritime Special Park WP	WP
12/10, 12/13	1-3	6 hrs	MLK Prep	-
12/17	1-3	10 hrs	MLK WP	-
1/28, 2/9	1-3, 7-9:30	8 hrs	EM WP + Prep	-
2/4-5	1-4, 7-3:30	8 hrs	R.S WP + Prep	-
2/11-2/12	1-4, 7:30-3:30	8 hrs	Prep WP @ walking	-
2/15-2/26	1-4, 7:30-3:30	16 hrs	Cornell Park South WP Little Squaquish Creek WP	-
Total Hours		194 hrs.		

**TOTAL INTERNSHIP HOURS: 231.75**

Intern Work Record

Name Zach Griffin

Date/Year	Time of day Worked	Total time worked	Task	Site
3/11-3/12	1-5:15, 7:30-4:30	13 hrs	Potting Party L1	P+R
3/18-3/19	1-3:45, 7:30-4:00	11.25 hrs	Potting Party L2	P+R
3/25-3/26	1-5, 7-2:30	13.5 hrs	Juliana WP	P+R

Total Hours **57.75 hrs.**

**Restoration Internship Evaluation**  
**Bellingham Parks Volunteer Program**

There will be two reviews: One half-way through the internship (early April) and one at the end of the internship. During each evaluation, interns must submit a self-evaluation to their supervisor one week prior to their evaluation meeting.

Date of Evaluation: April 27, 2022  
Time in Present Position: September 17, 2021, to March 26, 2022  
Supervisor: Shelby Kita and Ryan Robie

**1. Internship Knowledge.**

- Severe lack of knowledge. Very little understanding of tasks, techniques. Constant supervision required.

- *Limited knowledge. Considerable supervision and job instruction required.*
- *Satisfactory knowledge. Needs normal amount of supervision and work instruction.*
- *Very good knowledge of own and related tasks. Occasionally needs work instructions.*
- *Authoritative knowledge. Rarely needs assistance. Extremely capable.*

**Comments:**

Supervisors: Zach came into this internship with a decent amount of knowledge regarding native and invasive vegetation, as well as basic restoration techniques. Throughout his internship, he has expanded his knowledge on all aspects previously mentioned. His desire to learn more about these things also aided in his ability to teach others, especially community volunteers who attended our work parties. Zach enhanced his native and invasive vegetation knowledge by presenting a plant presentation approximately once a week and applying what he learned out in the field (ex. Foraging, sharing new/fun info with the PVP team and volunteers, etc.). Zach also had a willing attitude when it came to learning new things such as how to use the weed wrench, leading a work party, removing a specific invasive he has never worked with, etc. Zach's heightened knowledge and environmental education skills will serve him well in future ecological restoration, stewardship, and volunteer management work that he does.

Zach:

- Worried about not being capable when he first started the internship
- Environmental education was not a focus/goal of his, but it has been a valuable tool he has gained by educating our work party volunteers.

**2. Quality of Work.**

- *Work is of poor quality. Continually makes errors. Requires excessive rework.*
- *Is careless and often makes mistakes. Work is marginally acceptable.*
- *Makes no more mistakes than should be expected. Quality is definitely acceptable.*
- *Quality exceeds normal requirements. Makes few errors and mistakes.*
- *Consistently turns out highest quality work. Very seldom makes mistakes. Final job nears perfection.*

**Comments:**

Supervisors: Zach always did quality work regarding his ability to lead a small group, creating plant presentations, being a team player, and asking clarifying questions. I knew that I could trust Zach to get a job done with little supervision/guidance. I appreciate how reflective Zach was, especially after the work party, because it showed that he wanted to improve and cared about how he presents the information to volunteers. I also appreciated how Zach always ensured safety on the job with volunteers and the PVP team. Zach was diligent and careful to a "t" while interning with the Parks Volunteer Program, and his attention to detail earned him many positive remarks during and after our Community Saturday Work Parties.

Zach:

- Wanted to bring 110% to the internship
- The work we do is very important
- Wanted to make a big impact

**3. Quantity of Work.**

- *Extremely low output. Very slow worker. Has difficulty staying on task.*
- *Marginal output. Produces less than most interns. Stays on task with constant supervision.*
- *Average output. Definitely acceptable.*
- *Produces more than most interns.*
- *Is usually a productive and fast worker. Regularly meets highest expectations.*

**Comments:**

Supervisors: Zach is a diligent worker and is always willing to help others. Zach was always present when he needed to be and was always thinking ahead. On top of his “normal” internship hours (WP prep, SWP) he also spent time creating plant presentations either as a PowerPoint or a video. Zach went above and beyond when working to remove invasive species from our work party locations and worked with volunteers to plant tons of native plants!

Zach:

- Learned/strengthened his ability to think ahead from Janie (former co-intern)

**4. Ability to Learn.**

- *Is extremely slow to absorb instruction, new techniques, etc.*
- *Requires unusual amount of instruction. Learns new tasks slowly.*
- *Average amount of instruction required for new tasks.*
- *Learns rapidly. Retains most instructions well.*
- *Exceptionally fast to learn and adjust to changed conditions. Rarely forgets prior instructions.*

**Comments:**

Supervisors: Zach was like a sponge during this internship and soaked up ALL the information he could – his thirst for knowledge was prevalent. I believe he learned a lot by creating the plant presentations, but also listening to others plant presentations or previous knowledge. Zach would ask clarifying questions to ensure that he understood what the plan for the day was, which was helpful to me (Shelby) because if one team member is unsure of the directions/instructions other team members might also be unsure. I could always trust Zach to get the job done! We could tell that Zach was genuinely interested in the subject matter (native & invasive plant species + volunteer coordination)—and we could also tell that he spent lots of time working to absorb every last ounce of information and context that he could so that he could better inform our community members on our stewardship techniques.

Zach:

- Passionate about the work we did (“Choose a job you love, and you will never have to work a day in your life”)

**5. Initiative.**

- *Never volunteers to undertake work. Unable to grasp what is required in a particular work situation.*
- *Rarely shows initiative. Need prodding to step up and do work.*
- *Seldom seeks new tasks or responsibilities, accepts them when assigned. Occasionally makes suggestions or volunteers' ideas. Seeks new tasks. Often makes suggestions and contributes ideas.*
- *Definitely self-motivated. Sees what's required and steps in. Seeks responsibility. Routinely makes suggestions and contributes ideas.*

**Comments:**

Supervisors: As Zach’s confidence grew as a small group leader, he started to take on more responsibilities. During work parties, Zach was always thinking ahead and would take the initiative among volunteers (ex. time for mulching, moving to a new WP task, West Cemetery Creek WP and the tree falling, etc.). I’m also grateful that Zach stepped up and led a few work parties. I also think that during our NSEA partnered work parties, Zach took the initiative and led the NSEA interns with site

set-up and answering any questions they might've had about the work party. Again, I could always rely on Zach to get the job done and to anticipate the unexpected.

Zach:

- Likes to take the initiative

**6. Interpersonal Relations.**

- *Unable to work with others. Is usually tactless, rude, and antagonistic to public and co-workers. Rarely cooperative. Regularly creates problems.*
- *Finds it difficult to work with others. Is frequently tactless, discourteous. Often unwilling to cooperate.*
- *Works well with others. Is generally agreeable, courteous, and helpful. Able to contribute to others with normal guidance.*
- *Works well with others in a positive manner. Usually polite and considerate. Employs principles and skills required to work as a group member.*
- *Works extremely well with others. Cooperative, thoughtful, courteous. Stimulates good group interaction and employs excellent interpersonal skills.*

**Comments:**

Supervisors: Zach is genuinely one of the kindest, sweetest human beings I've had the opportunity to work with. He was a GREAT team member to have, and we were sad to learn when he needed to end his internship early. He had professional interactions with the PVP team, other COB staff, and volunteers. Zach was always thoughtful, courteous, and polite (and used his great sense of humor, too!) in his interactions with staff and community members.

Zach:

- Social anxiety worries
  - Worried about interactions with volunteers

**7. Judgment.**

- *Shows little common sense. Decisions are usually poor and unreliable.*
- *Sometimes has a problem with judgments and decisions. Generally reliable with direct supervision.*
- *Generally makes appropriate decisions and works reliably with normal supervision.*
- *Almost always makes sound decisions with little supervision. Shows unusual insight.*

**Comments:**

Supervisors: I knew that I could trust Zach with his decision making under little supervision. Because Zach was able to think/plan ahead it helped him make on the spot decisions when a supervisor wasn't around. If this ever happened, Zach would talk about why he made that decision with me and most of the time I was okay with what he decided and would've done the same thing. Ensuring safety was something that Zach did well at, and I appreciated it when he would bring something to my attention that needed to be addressed. By the end of his time with the Parks Volunteer Program, we knew we could trust Zach to make good decisions in a variety of different circumstances.

Zach:

- Had the responsibility of watching over volunteers during work parties

**8. Policy Compliance.**

- *Often hesitant or unable to accept and follow policies and procedures.*
- *Normally accepts and follows policies and procedures. Occasionally needs correction.*

- *Almost always follows policy and procedures or has satisfactory explanations when unable to do so.*

**Comments:**

Supervisors: No issues here at all. Zach always adhered to policies, COVID-19 safety, and training volunteers. Zach worked with us to ensure that we were as safe as possible in the work that we did.

Zach:

**9. Work Habits.**

- *Work is usually sloppy. Careless with equipment, supplies, procedures.*
- *Work is sometimes messy. Sometimes careless with equipment and supplies.*
- *Meets minimal organization and professional expectations with regard to work habits. Work is acceptably neat. Generally careful and efficient with equipment and supplies.*
- *Work is well done and looks neat. Generally careful and efficient with equipment and supplies.*
- *Work is fastidious. Consistently uses equipment and supplies carefully and efficiently.*

**Comments:**

Supervisors: Zach is a diligent worker and always ensure safety while on the job. I never had to worry about Zach completing a task or his safety while working. Zach was consistently careful and efficient with the tasks he worked to complete, and worked well with others to co-create better/safer/more effective ways of completing given tasks.

Zach:

**10. Communication.**

- *Fails to communicate effectively.*
- *Sometimes misunderstood. Needs significant improvement in writing and oral communication skills.*
- *Adequately communicates with others. Needs continued practice with writing and oral communication skills.*
- *Usually communicates effectively. Ideas are understood. Good writing and oral communication skills.*
- *Exceptional communicator. Excellent writing and oral communication skills. Communicates well with just about everyone he/she comes in contact with.*

**Comments:**

Supervisors: Zach did a great job of communicating when he was unavailable, as well as providing any feedback/suggestions to improve the work party in any way (ex. Planning, set-up, organization, etc.). During our Community Work Parties, Zach found his voice and passion for effectively communicating with and educating members of the public on native and invasive plant best practices.

Zach:

- Worried about ADHD/hyper-active
  - Fast speaker, especially when nervous
- An area to keep improving in

**Supervisor's Comments:**

It was a pleasure to have Zach a part of our team and someone who I could supervise. Zach entered this internship with an enthusiastic and willing attitude, as well as his passion for environmental stewardship and community engagement. He did an exceptional job in being a small group leader, team player, and leader when needed. I've only ever heard compliments about Zach's ability to lead a small group and being able to communicate the tasks we were completing and how to do them properly. I know that Zach's work ethic, commitment, and positive attitude will take him very far in his life and career.

We thank Zach for his leadership, professionalism, and hard work for the time he was with us – it was sad to hear that he needed to end his internship early. He is easy to work with and has gained much experience in community engagement and basic restoration techniques. We wish Zach the best of luck in finishing his last quarter at WWU and the adventures that lie ahead of him. Thank you, Zach, for all your hard work and contributions to the Bellingham Parks and our Volunteer Program!

**Intern's Comments:** *Please provide comments on the evaluation and the internship experience. Were your expectations met for your internship? Did you achieve your personal goals? What did you learn during your internship? How could your internship be improved? Thank you!*

- Great work environment (roots growing a pot quote)
- Learned about empathy and compassion through the internship
- Always looked forward to coming in on Fridays and Saturdays

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### Stats

\*numbers are a rough estimate for visual purposes and doesn't actually reflect exact true values which is much greater than what's represented in the table

Date	# of Volunteers	Site	Activity	*Total Plants	*Invasives removed (Cubic yds)	*Mulch spread (Cubic yds)
9/18/2021	21	Squalicum Creek Park - Willow Springs	Invasive removal, mulching			
9/25/2021	39	Squalicum Creek Park - Willow Springs	Invasive removal, mulching			
10/2/2021	35	Big Rock Garden	Sculpture cleaning, landscaping, invasive removal, planting	24		
10/9/2021	80	North Cornwall Park	Invasive removal, mulching, planting (in mitigation area)	25	15	

10/16/2021	24	Sehome Hill Arboretum	Invasive removal, mulching		8	
10/23/2021	160	Whatcom Falls Park	Invasive removal, planting, cribbing, mulching, social trail decommissioning	425		
10/30/2021	36	Julianna Park	Planting, mulching	151		
11/6/2021	46	South Connelly Creek Nature Area	Invasive removal, caging			
11/13/2021	45	West Cemetery Creek	Planting	402		
11/20/2021	94	Maritime Heritage Park	Planting, invasive removal, mulching, caging/tubing	24		
12/4/2021	57	Squalicum Creek Re-Route	Live staking, invasive removal, mulching	356		
12/11/2021	37	Harriet Spanel Park	Invasive removal			
1/17/2022	139	Squalicum Creek Park - Willow Springs	Invasive removal, planting, mulching, caging/tubing	455	6	30
1/28/2022	32	East MEadow Park	Invasive removal, planting, mulching, caging/tubing	20	9	4
2/5/2022	35	Roosevelt Nature Area	Invasive removal, planting, mulching, caging/tubing	41	25	25
2/12/2022	27	Railroad Trail at Vining St. and View Ridge Dr.	Invasive removal, planting, mulching,	61	5	10

			caging/tubing			
2/26/2022	22	South Cornwall Park	Invasive removal, planting, mulching, caging/tubing	35	7	8
3/5/2022	72	Little Squalicum Park	Invasive removal, planting, mulching, caging/tubing	70	15	8
3/12/2022	13	PKOPS Potting Party Weekend 1	Potting bare root plants, nursery placement and transitioning	530		
3/19/2022	11	PKOPS Potting Party Weekend 2	Potting bare root plants, nursery placement and transitioning	300		
3/26/2022	21	Julianna Park	Invasive removal, planting	50	5	3

Plant Research Presentation Slides:

**1** Overview of *Salix lucida* (Pacific Willow). Includes photos of the plant and its leaves. Text: Also known as Weeping Willow. *Salix lucida* Pacific Willow.

**2** In General. Characteristics: • Promotes wetland habitat species; • Responds to light, water, and nutrient levels; • Or vegetatively by sprouting from the parental root system; • Propagating: • Cuttings or shrub or small tree saplings; • Early seed species: • Wetlands or riparian habitat in coastal, elevated sites; • Invasive habitat and riparian zone; • Recommended for restoration projects, economic, ecological benefits; • Most water tolerant and tolerant for many wildlife species; • Early propagator and hybridizes with other willow species; • Other strong characteristics: • Largest native willow; • Flowers throughout spring/summer, March - June.

**3** Identification Characteristics. Leaves Description: • Leaflets, long, elliptical green leaflets; • Light-green beneath; • Long-oval, shiny pointed margin, with a serrated leaf at the end; • Fully when young, becoming hairless in age; • Alternately arranged on branches.

**4** Identification Characteristics. Bark/Fruit: • Fruit stems rather than the main stem; • Perennial with basal flat woody stem; • Mature bark is grey-brown and fissured; • These stems are light yellow when an immature light in late summer.

**5** Identification Characteristics. Flower/Fruit: • Almond yellow-green color; • Petals pale green; • White, cream green-pink; • Hanging the structure as the flower; • Flower buds resemble dark bits; • Flowering stems yellow to intense light green.

**6** Growth Range. Habitat: • Concentrated in wet to moist riparian belts; • Riparian zone; • Low elevation (streams, rivers, wetlands); • Low elevation; • Wet meadows; • Willows occur in easily eroded subsurface water; • Shrub habitat, usually occupying full sun; • Prefers lower elevation sites; • Spread out for growing stems; • Flood tolerant.

**7** Ecological Role: • Filling created as a valuable food source by many herbivores during lean times; • Herbivory used as preferred habitat by small wildlife and branches for birds; • Slows to keep waterways cool and clean thereby improving aquatic habitat quality; • Habitat streambanks; • Willow branches provides habitat cover and creates deep pools for fish and other river dwelling species; • High nesting ability perfect for native restoration projects; • Wetland riparian plants usually poor to long cut; • Composites well with invasive plants; • Assists other plants in establishing in new sites by acting as a nesting location.

**8** Traditional Northwest Indigenous Uses: • Branches: • Used for boat ribs for the stern, bow and ribs; • Fish weirs and traps; • Bows; • Canoes for broken ribs; • Basketry frames; • Leaves: • Used with bark to create a plaited mat; • Bark: • Contains salicin and when it is water-soluble is useful. Used for pain relief; • Other medicinal uses: can be used to treat sore throats, toothache, stomach ache, headache, of the chest; • Young bark could be used to make wine.

**9** Sources: <https://www.fishbase.org/species/salu.html>  
<https://www.fishbase.org/species/salu.html>  
<https://www.fishbase.org/species/salu.html>  
<https://www.fishbase.org/species/salu.html>  
<https://www.fishbase.org/species/salu.html>





1

**In general:**

- Native to mountains
- Perennial deciduous shrub
- Height 2m - 2.5m
- Full sun, well drained, dry soil
- Propagation via seed
- Early flowering
- Drought and frost tolerant
- Pruned by European horticulturists + landscapers
- Cultivated in gardens
- Dark red/black berries
- Small blackberry shrub
- Pruned + heavy hedges



2

**Habitat and Distribution**

- Native to N. American west coast
- Coastal CA to 4-5 California
- Very west of the coastal mountains
- Elevation: up to 6,000 ft.
- Prunus
- Open temperate woodlands
- Disturbed sites
- Dry rocky well drained slopes



3

4

**Identification Characteristics: Leaf**

- Lobed 5-9
- Alternate (opposite leaves)
- Alternately arranged on stem
- Tertiary
- Dark green
- Smooth
- Petiole
- Flaps
- Yellowish green
- Smooth
- Leaves give off distinct aroma in hot weather or when crushed

5

**Identification Characteristics: Flowers + Fruits**

- Drooping flower clusters
- Easy to tell by white to pink color, different color
- Clusters form at stem ends
- Blooming spring
- March - June
- Black berries with a waxy bloom
- Fruit ripens in late summer
- August - September

6

**Ecological Impact + Uses**

- Berries are eaten, fermented
- eaten fresh, dried, or cooked
- Jam, jelly, etc. done in water
- used to give flavor to other dishes
- Beneficial to early spring pollinators
- birds
- returning hummingbirds
- often visited by many small mammals and insects
- Leaves are an important source of food for many and several larvae
- Berries used as nesting sites for songbirds

7



1



2

**Why is Rubus laciniatus considered invasive? What are its ecological impacts?**

- Rapid growth rate overruns neighboring species
- Alters the structure, texture and color
- Alters native tree sapling growth
- Forms impenetrable thickets, often blocking movement of wildlife
- Lacks deep, leaf-shedding, roots compared to native perennials and trees
- Displaces blackberry native to the region
- Spreads quickly and difficult to control

3

**Identification Characteristics: Stem**

- Red-brown stem, often covered
- Leaves either grow up and back towards the ground, or spread wide, rarely both being shown
- Small, dense, leafy, both being shown
- Small, dense at base, transition to yellow-white berries in the stem
- Stems the grow up to 1.5m tall up to 30 ft. long

4

**Identification Characteristics: Leaf**

- Evergreen leaves retained with new growth
- Alternately arranged
- Petiole prominent leaf clusters, each with 5-9 lobes
- Tertiary lobes, serrated, and lobed
- Dark green, smooth, and lobed
- Leaves give off distinct aroma in hot weather or when crushed
- Bark-like texture on leaf clusters stems and underneath veins

5

**Identification Characteristics: Flower and Fruit**

- Black berries are flower-like
- Clusters of 5 to 25 flowers
- Petals 5-9
- Blooms to early June in color
- Petals have three lobes at tips
- Only one year old stems bear fruit, other within the same time off having remained in previous year
- Berries ripen during July-August
- Berries, smooth, black, are a source of food for many birds and several mammals
- Important! The berries are black!

6

**Where can I commonly find it? Where does it thrive? What are its preferred habitats?**

- Thrives and produces growing in:
  - Open, well-drained areas
  - Areas with moderate moisture
  - Areas with moderate shade
  - High-altitude habitats
  - Areas with moderate and high
  - High-altitude habitats
  - Areas with moderate and high
  - High-altitude habitats
- Best in the sun, but can tolerate shade

7

**County Creek Watershed, Upper Valley, Washington, Washington**

- ✓ Wetland areas
- ✓ Low and moderate elevation
- ✓ Areas with high rainfall, moderate
- ✓ Moderate and lower elevations
- ✓ High-altitude habitats
- ✓ Moderate and high
- ✓ High-altitude habitats
- ✓ High-altitude habitats

8

**How does it spread?**

- Propagates by seeds
- Flowers can self-pollinate
- Flowers can also be pollinated by insects
- Reproduces via rhizome
- New stems are produced from nodes in contact with soil
- Reproduces vegetatively by root and stem regeneration
- Perennial 3-5m long from the ground

9

**Random Tidbit Time!**

10

**A variety of Rubus laciniatus without thorns and flavorful berries has been cultivated and grown in Oregon**

11

**Seeds can remain dormant in the soil for several years before sprouting under the right conditions**

12

**Rubus laciniatus is flood tolerant**

13

**It is also an, early successional, indicator species of moist, disturbed, and nutrient-rich soils**

14

**Rubus laciniatus is facultative**

This means it has the choice and capacity to live under more than one set of specific environmental conditions (cool, moist, temperate vs. semi-arid uplands)

15

**Studies in Oregon suggest that berry species, such as Rubus laciniatus, increase growth after one or two prescribed fire burns.**

16

**Intolerant of drought, snow, and frigid conditions**

17

**Studies have found that ingestion of evergreen blackberries in dairy animals boosts mildly their dairy production**

18

**Removal of top growth by mowing, cutting, or grazing with goats will eventually kill the blackberry if done regularly and over several years.**

19

**Sources**

<http://www.ars-grin.gov/cgi-bin/nchar/nchar.pl?species=12248>  
<http://www.ars-grin.gov/cgi-bin/nchar/nchar.pl?species=12248>  
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<http://www.ars-grin.gov/cgi-bin/nchar/nchar.pl?species=12248>

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## Internship/Learning Agreement

Section 1 – Student Identification			
Last Name, First Name:	Griffin, Zachary	Western ID:	W01358885
Email Address	griffiz@wwu.edu	Major/PreMajor	UPSD

Section 2 – Registration Information			
Total Credits:	6	Faculty Advisor:	Dr. Rebekah Paci-Green
Internship Start Date:	9/17/2021	Internship End Date:	Mid-June 2022
Number Credits Per Quarter (F/W/S/Sum)	2		
<i>Note: You must be registered for credits during quarters you perform <b>any part</b> 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:	Amy Brown
Mailing Address:	n/a
Email Address:	apbrown@cob.org
Phone Number:	360-303-6511
Description of Duties (Or Attach Job Description): Taking the role of a group leader at Saturday volunteer work parties, guiding volunteers of all ages and backgrounds with a focus on safety and effectiveness. Being a part of a team that is responsible for work party planning, preparation, and tool maintenance. Working with plants and the community in a way that also helps restore the many parks and trails around Bellingham. During Spring Quarter, there might be extra help the organization might need, using my offered skills in GIS and planning, to complete a project that will be beneficial to them in the future.	

**Section 4 – Learning Objectives**

**What do I intend to learn from this experience:**

- Learning and exploring different environmental restoration planning methods that improve upon local ecology (removing non-native/invasive flora, maintain trail standards, sustainably managing vegetation) and environmental quality of recreational/open space areas for all users.
- Working with the local municipality to effectively manage a volunteer program to get local citizens involved with their local parks, giving back to the community.
- Building upon valuable skills which can be used as stepping stones towards future positions such as taking a leadership role, team work collaboration, and using robust communication methods to complete projects.
- Learning how to coordinate, mediate, and effectively work with a diverse array of individuals with varying degrees of outdoor/environmental education, perspectives, and experience. Getting them to be engaged, collaborating, and working together in a way that expands their outdoor experiences and relationship to nature in a positive and healthy way.
- Learning about and facilitating sustainable community-based programs that incentivize citizens to form sustainable connections with other citizens, partners, and city departments.
- Expanding knowledge of native/invasive flora attributes and identification.
- Working with different community partners and stakeholders.

**How does this experience contribute to my educational goals:**

It'll give me hands-on environmental planning experience with the local Parks and Rec. department in a way that fosters sustainable connections, well-informed, community-based, and healthy citizen engagement with their local ecosystems, which meets a lot of my personal education goals. Restoration projects and recreational space management is a sector I would like to jump into and I see this position as the stepping stone. It is important to me because it is a way to get people outside and learning about the ecosystem they live in. As a leader, facilitator, and educator of these volunteer work parties, I see it as a way to foster positive relationships not only between individuals, but with their host environment. Perhaps creating the first step in a snowball effect that will change perspectives, values, and lifestyles while also bringing people together through teamwork to improve spaces meant to be enjoyed by every community member. I'll also build upon my leadership and communication skills which are vital to the field of work I plan to head into. My academic focus in urban planning and sustainable development will be greatly strengthened by all of these kinds of experiences.

If Faculty require any additional Learning Objectives, they should be listed here:

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

<p>Meet with Advisor: _____</p> <p>First Draft Due: _____</p> <p>Final Draft Due: _____</p>	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 70%;"></th> <th style="width: 15%; text-align: center;">Yes</th> <th style="width: 15%; text-align: center;">No</th> </tr> </thead> <tbody> <tr> <td>Additional Learning Objectives (as assigned by faculty)</td> <td style="text-align: center;"><input type="radio"/></td> <td style="text-align: center;"><input checked="" type="radio"/></td> </tr> <tr> <td>Oral Presentation Required</td> <td style="text-align: center;"><input type="radio"/></td> <td style="text-align: center;"><input checked="" type="radio"/></td> </tr> <tr> <td>Daily/Weekly Log Require</td> <td style="text-align: center;"><input checked="" type="radio"/></td> <td style="text-align: center;"><input type="radio"/></td> </tr> </tbody> </table>		Yes	No	Additional Learning Objectives (as assigned by faculty)	<input type="radio"/>	<input checked="" type="radio"/>	Oral Presentation Required	<input type="radio"/>	<input checked="" type="radio"/>	Daily/Weekly Log Require	<input checked="" type="radio"/>	<input type="radio"/>
	Yes	No											
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Oral Presentation Required	<input type="radio"/>	<input checked="" type="radio"/>											
Daily/Weekly Log Require	<input checked="" type="radio"/>	<input type="radio"/>											

### Section 6 – Students Certification

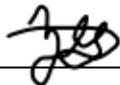
I certify that I have read the University Policy on Risk Management Considerations for Student Internships and I will [report](#) any injuries suffered while performing internship promptly to WWU.

[http://www.wvu.edu/bfa/Risk\\_Mgmt/documents/Internship%20Considerations%20\(14\).pdf](http://www.wvu.edu/bfa/Risk_Mgmt/documents/Internship%20Considerations%20(14).pdf)

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 the 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

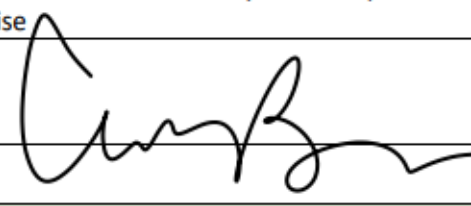
 6/12

### 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 Huxley 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 Huxley Internship Coordinator (360) 650-3646, [ed.weber@wwu.edu](mailto:ed.weber@wwu.edu) should any problems arise

Internship Site  
Supervisor  
Signature/Date

 7/6/21


### 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. 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/tasks/reports assigned and load final internship report onto the Huxley Server. P:\Huxley\PUBLIC\_folders\COLLEGE\_OFFICE\Intern\_Reports

Faculty Advisor's  
Signature/Date

Rebekah Paci-Green

 Digitally signed by Rebekah Paci-Green  
Date: 2021.06.22 13:59:54 -07'00'

### Section 9 – Huxley College Internship Coordinator

Actions:

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

Works Cited

Sandt, Laura, et al. *Pursuing Equity in Pedestrian and Bicycle Planning*. Pedestrian Bicycle and Information Center, Mar. 2016.

Williams, Eric, et al., editors. "*Innovative Land-Use Planning Techniques: A Handbook for Sustainable Development*". NH Department of Environmental Services, 2008.