



Grant Application 2022-2023

The SEJF grant application is for all fund requests. Please fill out the application completely, utilizing additional space as appropriate. Supplementary documents may be added in the appendix at the end of the document.

*Note: if you are requesting a large grant (over \$35,000) you must first submit a Large Grant Abstract. Abstracts must be reviewed and approved by the Sustainability Engagement Institute Director before a final application can be submitted. Ask a program representative for a copy of the Large Grant Abstract template.

Each grant team is assigned an SEJF project coordinator; this individual will collaborate with the project team and provide feedback and insight on the application. Teams are expected to meet on a regular basis with their SEJF project coordinator.

The research and writing components required for this application take, at minimum, a month to complete. Last-minute requests may not be accepted. For detailed application instructions, please refer to the *SEJF Grant Application Toolkit* or ask your project coordinator.

Submit your completed application by emailing a scanned version (including signatures) to the SEJF Grant Program Coordinator, Zinta Lucans. Applications must be signed by your advisor, all members of the project team, and all stakeholders in order for them to be reviewed. Email: lucansz@wwu.edu.

Application Level: Determine the amount of funding you will require and check or highlight the appropriate category:

	Small Grant: Up to \$5,000. Applications of this size will be reviewed by the Communications Manager and the Sustainability Institute Director. Small grants may be approved, declined, or sent to the SEJF Committee for consideration.
X	Medium Grant: Between \$5,001 and \$35,000. Applications of this size will be reviewed by the Communications Manager and the Sustainability Institute Director for alignment and completeness and then provided to the SEJF Committee. The committee will review the grant, receive your presentation, and approve or decline the funding request.
	Large Grant: Over \$35,000. To request funding at the level, you must already have submitted and received approval of your grant abstract. Please attach your approved abstract to the end of this application. Applications of this size will be reviewed by the Communications Manager and the Sustainability Institute Director for alignment and completeness and then provided to the SEJF Committee. The committee will review the grant, receive your presentation, and approve or decline the funding request.

SECTION 1: Project Concept.

a. **Project Title:** LEAD Reforestation Demonstration Project

b. **Statement of Purpose:**

The LEAD Reforestation Demonstration Project brings environmental, social, and educational benefits to the WWU community through the planting of a native climax mini-forest on campus following the Miyawaki Method. The proposed location is on the north end of the WWU campus, just north of parking lot 3R and adjacent to the Arboretum (see appendix for a detailed map).

c. **Describe your proposed project in detail:**

The LEAD Reforestation project will turn a degraded site on WWU's campus into a native climax forest using the Miyawaki Method. LEAD (Learning Environment Action Discovery) is a longstanding ecorestoration and service-learning program at WWU that has been directed by College of the Environment graduate students since the 1990s. We provide service-learning and volunteer opportunities for WWU students, and many students involved with LEAD have gone on to find jobs and careers in related fields. We partner with on campus organizations such as WWU Buildings and Grounds, The Outback, and The Sehome Arboretum Board of Directors to help maintain and restore vegetated areas around campus. This work includes removing non-native species, planting native trees and understory plants, propagating native plants, amending soil, and otherwise turning degraded sites into healthy, functioning ecosystems. In addition to our on-campus work, LEAD works closely with the City of Bellingham Parks and Recreation Department doing similar restoration work on sites around Bellingham. Other local partners include the Nooksack Salmon Enhancement Association, Whatcom Million Trees, and the Whatcom Land Trust.

LEAD is run by two graduate student co-directors as well as a group of undergraduate interns. We are currently expanding our intern program and have four outstanding interns focused on web development and outreach, communications, native plant restoration and project planning, and environmental education. In addition to the internal team, LEAD recruits hundreds of student and community volunteers throughout the year to participate in our weekly work parties. Our work parties are a great way for students (and community members) to participate in experiential learning across disciplinary boundaries. We also connect with relevant classes on campus to host specialized work parties related to specific class curriculum. In the spring, LEAD co-directors teach a two-credit seminar class with 10-20 undergraduate students. This seminar is open to any student currently enrolled at Western. The seminar culminates in a student-run restoration project in partnership with one of the above organizations.

This proposed project is based on the reforestation technique known as The Miyawaki Method. The Miyawaki Method is unique in that it recreates the conditions needed for a native forest to arise in decades, rather than centuries. This method is focused on planting forests rather than trees, the benefits of which include improved ecosystem function, carbon sequestration, habitat creation, temperature regulation, and low maintenance costs once established. Unlike some tree planting projects, Miyawaki forests are ecologically functional and biodiverse. They are well suited to urban environments because they can grow in areas as small as six-parking spots.¹ They have been planted in former parking lots, medians, along highways, behind schools and in other degraded sites around the world.

The Miyawaki Method is generally broken down into five steps: 1) Choose a reforestation site and identify a budget/funding strategy for the project, 2) Determine the potential natural vegetation of site, 3) Prepare the soil, 4) Plant the forest, 5) Maintain the forest. LEAD intends to follow this process, culminating in a forest planting party in May, 2023. To accomplish these steps, we will need to purchase a significant number of tools. All of the requested tools will continue to be used by LEAD during regular work parties and future reforestation

¹ Lewis, Hannah. 2022. Mini-Forest Revolution: Using the Miyawaki Method to Rapidly Rewild the World.

projects. With approval from Classroom Support Tech IV Scott Wilkinson, we will be able to store some of these tools in the basement storage area of the Environmental Studies building, room ES 64. We have also included a small tool shed in our budget that will store the remaining LEAD tools. We are in the process of submitting a ReADY request through Facilities Maintenance to be able to place this shed near the biology Greenhouses behind Arntzen Hall. This space was recommended to us by Scott Wilkinson, Diane Knutson (Administrative Manager College of the Environment), and Peter Thut (Biology Greenhouse Manager), so we are hopeful our request will be approved. If not, we will work with Facilities Management to find a more suitable location to store our toolshed.

Our project preparation has already begun, including site identification, six fall work parties to remove non-native species at the site, outreach and partnership building, plant identification, nursery creation, soil testing, and budgeting. We have already removed an estimated 23 cubic yards of non-native plant material including English Ivy, Holly, Clematis, and Himalayan Blackberry! We will continue research to identify the potential natural vegetation and to plan appropriate soil preparation practices to be implemented in Spring, 2023. Steps 2-5 will be an integral part of the Spring 2023, LEAD Seminar. Students will be broken into project groups and will focus on researching, planning, teaching, and implementing one of these four steps. The books purchased with the budget will be required reading for this class and will be loaned to students in the seminar. The books will remain property of LEAD, however, and will be used again next year by future LEAD interns and seminar students. One of the benefits of these forests is that they require very little maintenance. During the first few years, LEAD will do some occasional weeding and watering and identify partners to help maintain the forest through the summer and into next year. The facilities department has a large vacuum truck that can store water and has long hoses. We have connected with them and are planning to coordinate use this summer. We plan to hire a student employee for approximately 5 hours/week for the summer of 2023 to perform routine maintenance to keep the forest healthy. After approximately 3 years, Miyawaki Forests are usually self-sufficient and do not require any external maintenance.

Lastly, we intend to bring a speaker on campus to host a workshop or other educational event. This event would hopefully be in person, and include some hands-on demonstrations of how to plant a Miyawaki Forest and the ensuing benefits. If we cannot get an in-person event scheduled, we could also host a virtual event where the speaker could show other examples of these forests around the world and discuss the ecological and social benefits. We have met with two potential candidates, Hannah Lewis who authored the book “Mini-forest Revolution”, and Ethan Bryson, project manager for Natural Urban Forests in Seattle. Both have extensive experience implementing Miyawaki Forests and have expressed interest in being involved with our project as well.

d. Who is the intended audience?

The intended audience includes everyone in the greater WWU community; however, we are particularly focused on engaging students. The forest will be planted on land co-owned by WWU and the City of Bellingham (COB), and will therefore be visible and accessible to the public. The greater WWU and Bellingham communities will be able to enjoy the benefits of a native forest now and into the future. It is also intended to benefit *future* students as a method for implementing restoration projects.

e. How does this project directly impact the Western student community? How many students will be affected?

This project will directly involve LEAD Co-directors, LEAD interns, volunteers, and students enrolled in the Spring 2023 LEAD seminar. We have two graduate students and expect to have 6-8 interns, 200-300 volunteers, and 10-20 seminar students throughout AY 22-23, all of which will be directly affected by this project. Students involved with LEAD in future years will be affected as well. Outside of LEAD, this project will impact all students by providing ecosystem services such as carbon sequestration and pollution abatement, aesthetic beauty, and educational opportunities. Additionally, we intend to use this grant to bring a speaker to campus to host a workshop related to this planting method. We see this as an important educational opportunity for students at

WWU. This workshop would be open to all students and interested community members, not just those involved with LEAD.

SECTION 2: Project Outcomes.

a. What are the goals and desired outcomes of your project?

By planting a successful Miyawaki mini-forest, we intend to provide educational opportunities, restore the local environment, and benefit the community in perpetuity in the following ways:

- *Demonstration Project:* Although Miyawaki forests have been implemented all over the world, there are few local examples, with none in Whatcom County. Our overarching goal for this project is to serve as a proof-of-concept demonstration project to encourage the planting of future Miyawaki forest in our region.
- *Education:* We intend for this project to provide educational opportunities to learn about native plants, the local ecosystem, soil health, project planning, non-native species removal, transplanting, propagation, tree planting, and much more. These opportunities will allow students to apply many of the concepts they have learned in class to a real-world project with tangible impacts. The mini-forest will hopefully serve as a demonstration site where future classes or workshops can be held.
- *Environment:* We intend for this project to provide tangible environmental benefits to the local ecosystem including improved ecosystem services, improved soil health, carbon sequestration, improved wildlife habitat, and improved ecosystem health.
- *Community:* This project will involve many partnerships and collaboration between students and others in the greater WWU community. One of our goals for this project is to build community around environmental stewardship that will extend past this initial planting project. This project is part of an ongoing effort to improve collaboration on restoration efforts between WWU and COB.

b. How will your project positively support the four pillars of sustainability at Western?

1. Create economic vitality:

During this first phase of the project, LEAD does not have any direct economic goals. However, LEAD sees this project as a proof-of-concept demonstration that could be emulated at a larger scale in the future. If more forests were planted around campus or the greater Bellingham area, they could be monitored to document carbon sequestration and ecosystem service benefits. A third-party organization could register these benefits as eco-credits, and WWU could retire the credits to offset their carbon footprint.

Another economic benefit of Miyawaki Forests is their self-sufficiency. After only three years, these forests do not require maintenance, which would decrease the input costs associated with labor, tools, water, etc. If WWU adopted mini-forests on a wider scale, WWU Buildings and Grounds would have fewer areas to maintain. Additionally, if successful, piloting a little-known reforestation technique could be a great opportunity to forge new partnerships in the community, host workshops, and teach classes, all of which could bring new economic opportunities at WWU.

2. Promote human health:

LEAD envisions this reforestation project promoting human health in four primary ways:

- a. This project provides increased opportunities for hundreds of WWU students to work outside and participate in experiential learning. Experiential learning and environmental volunteering have been

shown to benefit human health in a myriad of ways including improved creativity, enhanced community building, increased motivation and engagement, etc.²³

- b. The LEAD mini-forest will create a healthy, native greenspace that is visible and accessible to the public. Access to greenspace is associated with many psychological benefits and has even been shown to improve academic performance in some instances.⁴
- c. This project will improve public safety by improving the health of large trees along a busy thoroughfare. There are many trees at our project site that are currently overtaken by ivy and other non-native species. This threatens to kill these large trees, making them a fall hazard to the public. By removing ivy and successfully introducing native species, this forest will improve slope stability with mature root networks and decrease the hazard posed by falling trees.
- d. This forest will improve ecosystem service benefits including carbon sequestration/climate mitigation, water quality, and soil health. Mini-forests have also been shown to temper the effects of urban heat islands, helping to regulate temperature and the adverse effects of extreme temperature on human health.⁵ Because human health is directly tied to ecosystem health, these services will promote healthier, thriving communities.

3. *Protect local and global ecology:*

As part of a larger network of mini-forest projects all over the world, the LEAD mini-forest represents a tangible step toward reintroducing native forests across the globe. Nearly all mini-forest projects thus far have seen native fauna return in large numbers to their forests, and we expect to see the same.⁶ In addition to improving wildlife habitat, we expect this forest to improve overall ecosystem health as well. One of the most important components of a mini-forest is that, if implemented correctly, it closely mimics the ecosystem function of a true native climax forest.⁷ This sets Miyawaki forests apart from other tree planting efforts that do not result in improved nutrient cycling, water retention, soil health, and other key metrics of ecosystem function.

4. *Uphold social equity:*

This project, aside from providing positive ecosystem benefits for the community at large, will offer free access to a specialized reforestation technique and expert knowledge which would otherwise be unavailable to the general public. Our project and planned workshops will remove the monetary, time, and transportation barriers which would otherwise render these skills inaccessible to many.

- c. **How will your project positively align with Western's Sustainable Action Plan (SAP)?** Please determine how it advances one or more of the ten SAP chapters. *For information on the SAP, please refer to the Sustainability Engagement Institute's website (sustain@wwu.edu) or ask your program coordinator. The ten SAP chapters are:*

² Eugenio-Gozalbo, M., Ramos-Truchero, G., & Suárez-López, R. (2021). University gardens for sustainable citizenship: Assessing the impacts of garden-based learning on environmental and food education at Spanish higher education. *International Journal of Sustainability in Higher Education*, 22(3), 516–534. <https://doi.org/10.1108/IJSHE-06-2020-0208>

³ Measham, T. G., & Barnett, G. B. (2008). Environmental Volunteering: Motivations, modes and outcomes. *Australian Geographer*, 39(4), 537–552. <https://doi.org/10.1080/00049180802419237>

⁴ Kuo, M., Klein, S. E., HEM Browning, M., & Zaplatosch, J. (2021). Greening for academic achievement: Prioritizing what to plant and where. *Landscape and Urban Planning*, 206, 103962. <https://doi.org/10.1016/j.landurbplan.2020.103962>

⁵ Kurian, A. L. 2020.. Urban Heat Island Mitigation and Miyawaki Forests: An Analysis. 6. *Poll Res. 39 (November Suppl. Issue) : S186-S191.*

⁶ Lewis, Hannah. 2022. Mini-Forest Revolution: Using the Miyawaki Method to Rapidly Rewild the World.

⁷ Schirone, B., Salis, A., & Vessella, F. (2011). Effectiveness of the Miyawaki method in Mediterranean forest restoration programs. *Landscape and Ecological Engineering*, 7, 81–92. <https://doi.org/10.1007/s11355-010-0117-0>

1. Built Environment
2. Campus & Community Engagement
- 3. Curriculum and Research**
4. Dining Services
- 5. Grounds**
6. Investments
7. Procurement
- 8. Student Life**
9. Transportation
10. Waste

Primary chapter of alignment: *Curriculum and Research, Student Life*

Explanation:

Because the mini-forest project will involve both the LEAD seminar class and the LEAD interns and work party volunteers, it furthers sustainability education in both the curricular and co-curricular environment. Therefore, it advances both the “Curriculum and Research” (CR) and “Student Life” (SL) chapters of the SAP. Students in the LEAD seminar will engage in experiential learning, applying the sustainability concepts they learn in class to a project with tangible environmental benefits for the Western community (CR, Goal 1, Objective 1.3). Volunteers and interns will also benefit from this opportunity to engage in praxis and build on the knowledge gained in the classroom.

By participating in this project, students and volunteers alike will better understand global environmental interdependence and be empowered to engage in local actions that contribute to global solutions (SL, Goal 1, Objective 1.1). For example, this project is an opportunity to discuss how local reforestation projects increase carbon sequestration, thus offsetting global greenhouse gas emissions. Participants will gain practical experience in implementing sustainability solutions (SL, Goal 2), and will learn an approachable and adaptable model of restoration (the Miyawaki Method) that can be replicated off campus. Thus, participants are empowered to become “force-multipliers, taking their knowledge and passion to the home and workplace” (SAP, p.3) and expanding sustainability beyond the borders of Western’s campus (SL, Goal 3, Objective 3.1).

Additional chapter(s) of alignment, if applicable: *Grounds*

Explanation:

This project will advance the “Grounds” (G) chapter of Western’s Sustainable Action Plan through a restoration model that meaningfully involves students, thus achieving tangible environmental benefits while fostering awareness of sustainability practices. The mini-forest relies on heavy mulching and native species adapted to the local climate, ensuring it will efficiently use what little water input it requires in the 2-3 years before it becomes maintenance-free, thus reducing consumption of natural resources (G, Goal 1). The mini-forest will not require pesticides to maintain (G, Goal 3). The forest will also protect water quality, fulfilling Western’s responsibility to steward water for communities downhill (G, Goal 4). The site is well-positioned to absorb polluted runoff from a nearby parking lot, and planting the mini-forest will increase the site’s absorption capacity, preventing runoff and eroded sediment from washing into the street. Finally, the project will involve students in the management of Western’s grounds, deepening familiarity with the local environment and encouraging a sense of pride and an ethic of stewardship for the area while promoting an understanding of restoration that is applicable to other ecosystems around the globe (G, Goal 5).

d. How will your project address the UN Sustainable Development Goals (SDGs)? *The United Nations has developed seventeen sustainable development goals (SDGs) to transform our world. These goals address the full spectrum of sustainability. When we work locally to transform our community, we are in league with people around the globe striving to create a more just society. The UN's seventeen SDGs are:*

- | | |
|---|--|
| 1. No Poverty | 10. Reduced Inequality |
| 2. Zero Hunger | 11. Sustainable Cities and Communities |
| 3. Good Health and Well-being | 12. Responsible Consumption and Production |
| 4. Quality Education | 13. Climate Action |
| 5. Gender Equality | 14. Life Below Water |
| 6. Clean Water and Sanitation | 15. Life on Land |
| 7. Affordable and Clean Energy | 16. Peace and Justice Strong Institutions |
| 8. Decent Work and Economic Growth | 17. Partnerships to Achieve the Goal |
| 9. Industry, Innovation, and Infrastructure | |

Please list and explain the three United Nations' Sustainable Development Goals that your project primarily addresses.

- Climate Action:* Our project takes tangible, urgent action to combat climate change locally. Healthy native forests sequester carbon and regulate temperature locally. We see our project as part of the global network of Miyawaki forests that together can help mitigate climate change.
- Life on Land:* Our project promotes the sustainable use and management of terrestrial ecosystems. Miyawaki forests around the world improve wildlife habitat and preserve local species biodiversity. This project also seeks to halt and reverse land degradation by restoring a site that is currently overtaken by non-native species.
- Sustainable Cities and Communities:* This project will create a healthy urban greenspace that is easily visible and accessible to the greater WWU community. Our forest will improve the safety of the area by cleaning up litter and removing the non-native species (ivy in particular) that are threatening to bring down trees in the area.

e. How will the success of the project be measured? Describe the quantitative and/or qualitative sustainability metrics you will use to measure the success of your project. A data collection plan is required for all projects, and all data must be provided to the SEJF Program upon completion of the project.

Metric	Description	How and when will you collect it?
Completion of proposed steps	All five steps of Miyawaki Method completed- culminate in planting forest	Pictures will be taken to document each step including the final forest after initial planting
Forest establishment	Refers to the growth and succession pattern over time of the species planted	A picture will be taken once per quarter for the following three years after establishment to document forest succession
Tree mortality	Refers to the degree of successful establishment of our planted trees.	We will count and map all newly planted material, and conduct a post-project survey of the number of trees that survived every quarter in conjunction with the forest establishment metric.
Community engagement	Refers to the number of volunteers and service-learning participants	We will monitor the number of participants and total participant hours.

SECTION 3: Project Participants.

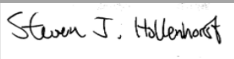
Team Information: A team should consist of two to five individuals, including the team advisor.

Project Advisor (Faculty or Staff) Student proposals must include a staff or faculty advisor. The role of the advisor is to assist and guide the team during the development, implementation, and post-implementation stages of the proposal process.

Project Lead: There must be at least one team lead designated for the project. This individual is expected to serve as the communication liaison for the project.

Financial Agent: The project must have someone with budget authority to manage funds for all purchases. Should funds require transfer, this individual will have to provide a FAST Index and Activity Code to the SEJF Manager.

Program Coordinator: A member of the SEJF team will serve as the primary contact for the program and committee.

Name	Department/School: <i>Students provide major/minor</i>	Position: Faculty/staff/student; <i>Students provide expected graduation quarter/year</i>	Western email address	Signature to verify agreement
<i>Team Advisor:</i> Steve Hollenhorst	College of the Environment, UEPP	Faculty	hollens@wwu.edu	
<i>Team Lead:</i> Ava Stone	College of the Environment, ENVS Graduate Student	Staff/Student- June, 2023	stonea23@wwu.edu	
<i>Team Member:</i> Brandon McWilliams	College of the Environment, ENVS Graduate Student	Staff/Student- June, 2024	mcwillb@wwu.edu	
<i>Team Member:</i> Tegan Keyes	College of the Environment, ENVS Undergraduate Student	Student- June, 2024	keyest2@wwu.edu	
<i>Financial Agent:</i>	Diane Knutson *Steve Hollenhorst will take over this position after Diane retires in April, 2023	Admin Services Manager Faculty	knutsod3@wwu.edu hollens@wwu.edu	Diane Knutson
For fund transfers <i>FAST Index:</i> <i>Activity Code:</i>	FSSTRS			
Program Coordinator:	Zinta Lucans			

SECTION 4: Project Timeline.

- a. Describe how your project will progress, both before and after the approval of your proposal. Outline all tasks that are required to complete the project, including all the means in which you will promote the project on campus, in the table below. Insert additional rows, as necessary.

Action	Purpose	Initiation	Completion
Choose Site	Determine project site location	Oct, 2022	Oct, 2022
Build Nursery	Collect plants to be used for reforestation	Oct, 2022	March, 2023
Remove non-native species	Non-native plants must be removed from project site before soil prep and planting can occur	Oct, 2022	May, 2022
Maintain Nursery	Keep our starts watered and healthy so they will be successfully transplanted to the forest site	Oct, 2022	May, 2023
Obtain additional plants	We will not be able to collect enough plant material on campus. Some will need to be purchased from native plant nursery	Winter, 2022	May, 2023
Obtain soil amendments	Need to determine correct soil amendments to use to create healthy soil conditions	Jan, 2023	April, 2023
Prepare soil	Soil must be prepped before planting	April, 2023	May 2023
Plant	Plant the forest!	May, 2023	May, 2023
Maintain forest	Periodic weeding and watering will occur for the following 3 years. These efforts will be coordinated and performed by LEAD co-directors, interns, students, and volunteers	May 2023	~May 2026

- b. When is the planned project completion date? The first phase of the project will culminate in planting the mini-forest in May, 2023. The project will be considered complete at the end of AY 23-24 in June, 2024. LEAD will continue to provide routine maintenance including watering and weeding for the following three years.
- c. When will final metrics and a final report be submitted to the SEJF Program? *This should be completed no later than one month after the project completion date.*

June, 2024.

SECTION 5: Project Stakeholders.

- a. Does your project involve labor/participation or require permission from organizations, departments, or individuals on campus? Who will be impacted if this proposal is implemented? All stakeholders must provide a signature of approval for this project.

Stakeholder Name	University Department and Position	Involvement in Project	Stakeholder signature of approval
LEAD (Current and future Co-Directors)	College of the Environment	Current LEAD co-directors will be in charge of the project.	Ava and Brandon

		Future LEAD co-directors will be responsible for maintaining the project in the future.	
Heidi Zeretzke	Buildings and Grounds- Lead Gardener	Help choose and approve worksite, provide guidance on plant material collection, lend some tools/pots to be used for project implementation	*See project ownership form signature

b. Who will be the project owner upon completion of the project? Which individual/office/department will take over the project? This owner should also be listed as a stakeholder.

LEAD Co-directors and interns- Brandon McWilliams will be the returning co-director next year, AY 23-24

c. Does your project propose a temporary or permanent facility or property modification? Yes

If so, is a Project Owner Form attached to the appendix of this application? *Please ask your project coordinator for this form.*

Yes. See attached form.

SECTION 6: Project Budget.

Provide an itemized list of the budget items required for this project. Include equipment, construction costs, publicity, labor, and any other costs. Include funding amounts from other sources that will impact project cost. The SEJF Program encourages the identification of additional funding sources to augment SEJF funds, and failure to secure such support may prevent approval of an application. List pending, approved, and denied applications for funding from other sources, along with amounts requested from those sources.

Budget item	Cost per Item	Quantity	Cost
Soil Amendments- compost, additives	\$30/yd	300 cubic yds	\$9,000
Mulch	\$10	100 yds	\$1,000
Plant material	~\$1.75	1200	\$2,000
Spade	\$10	8	\$80
Flathead Shovel	\$15	5	\$75
Rakes	\$15	4	\$60
Buckets	\$5	20	\$100
Gloves	\$40 for 12 pack	24	\$80
Potato Fork	\$30	4	\$120
Pick Axe	\$35	2	\$70
Broad Fork	\$100	2	\$200
Loppers	\$24	2	\$48
Clippers	\$15	10	\$150
Tool Shed	\$500	1	\$500
Tarps	\$20	5	\$100
Weed Wrench	\$200	1	\$200
Wheelbarrow	\$130	1	\$130

Tape Measure	\$15	1	\$15
Mini-Forest Revolution Reference Book	\$20	10	\$200
Collapsible Table	\$40	1	\$40
Potting Soil	\$50	3 yds	\$150
Soil lab testing (3 rounds)	\$50		\$150
Additional Tool Rental (for large planting work party)			\$200
Slope stabilization materials (stakes, mallets)			\$50
Event Supplies (promotional materials, etc.)			\$100
Foldable Tent	\$80	1	\$80
Volunteer Snack budget			\$500
Printing (flyers, posters, - will need new ones each quarter to advertise new work party dates)			\$50
Miscellaneous (tool repair, transportation/gas reimbursement, etc.)			\$300
Workshop Stipend- cover speaker and their transportation costs			\$1500
Educational materials (sign or series of educational signs explaining the project, would likely be done next year as a follow-up to planting)			\$700
Summer maintenance- hire a student employee (watering, weeding, repairing any damage, etc.)	\$22.80/hr	5 hours/wk 16 weeks	\$1,824
Deer fence materials			\$500
Total project budget			\$20,272

Additional funding source(s), if applicable	Status	Amount
College of the Environment pays for two half-time graduate student TAs to run the program	Current	Tuition Waiver: ~\$1,000-4,000/qtr depending on number of credits and residency status Stipend: \$5,100/qytr
Total of all other funding sources		\$6,100-\$9,100
Total requested funds from SEJF		20,272

If the project is implemented, will there be any ongoing replacement, operational, maintenance or renewal costs? If yes, has a source of funds been identified to cover those costs? This must be communicated to the appropriate stakeholder.

There are no ongoing costs that are not included in the grant.

Ongoing cost	Amount/year	Responsible Stakeholder	Signature
n/a			

SECTION 6: Appendices.

Provide any additional documents, references, or information here. For large grants, attach the approved abstract in its entirety at the end of this document. When possible, provide documents rather than URLs.

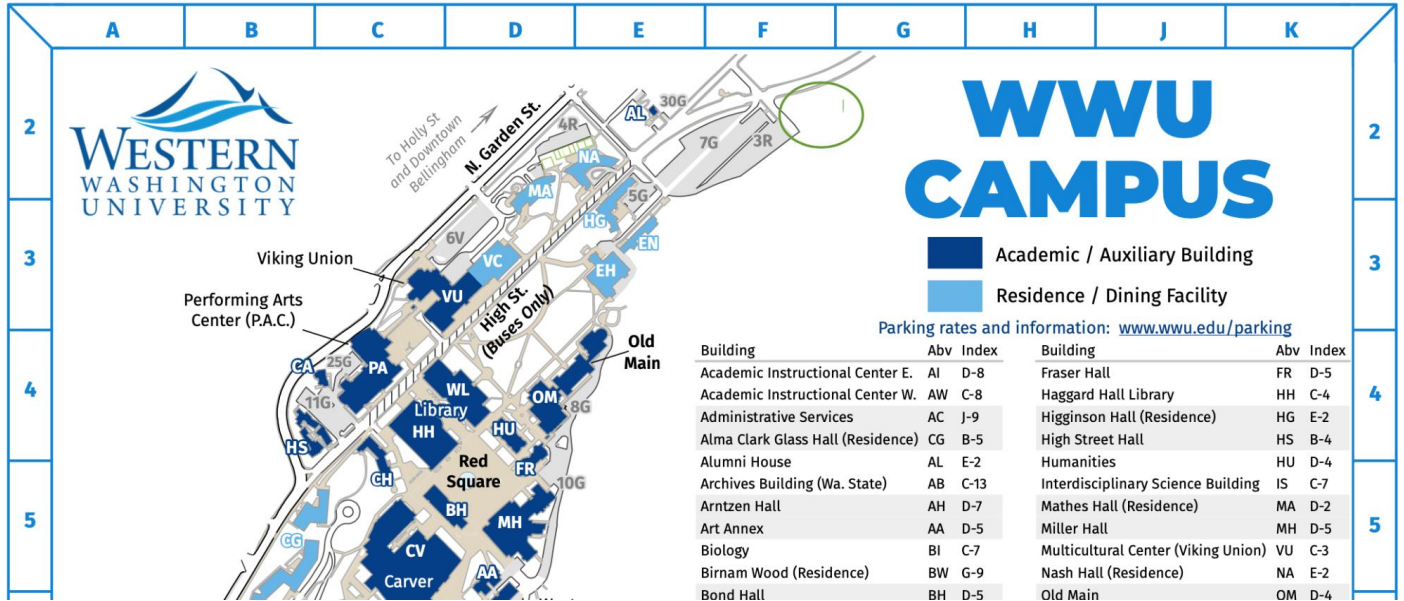


Figure 1. A map of WWU showing our project site in the green circle, just north of parking lot 3R.

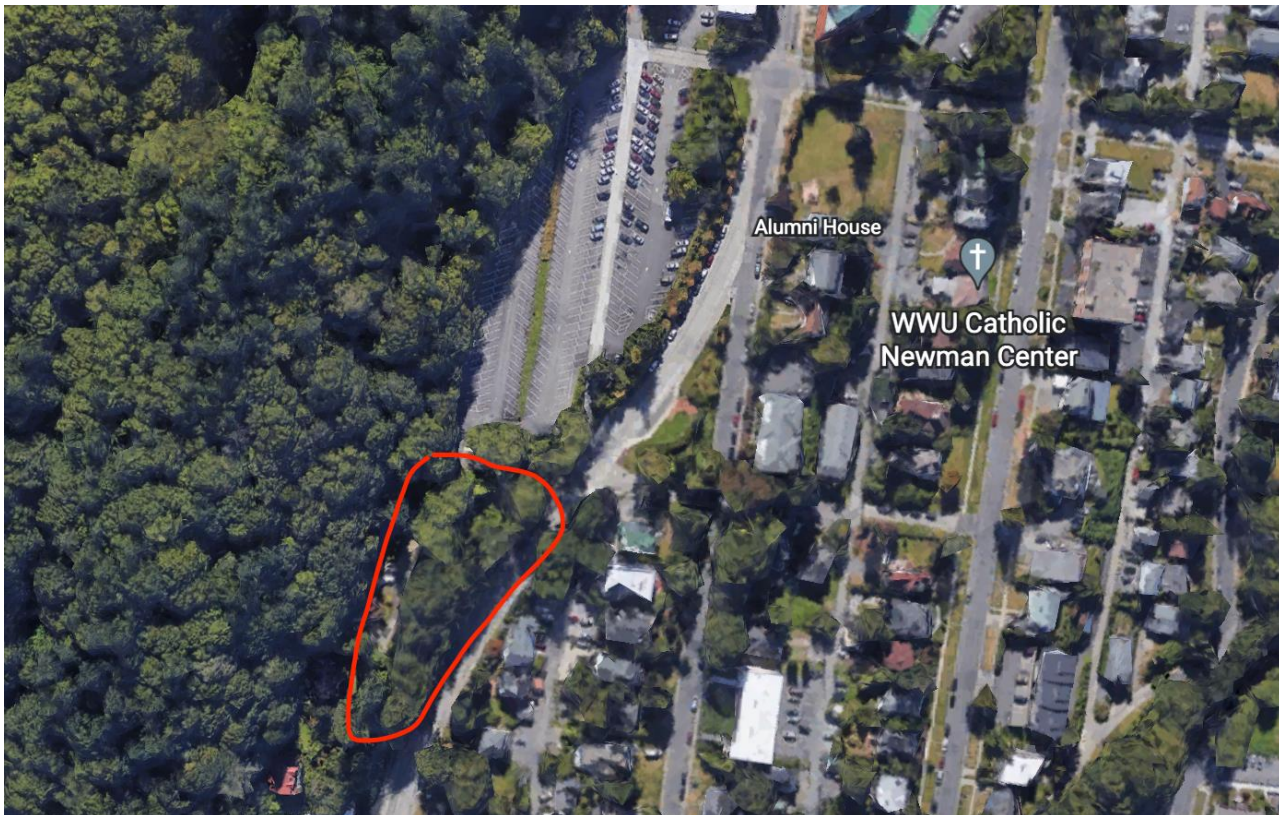


Figure 2. Satellite imagery of worksite circled in red.



Figure 3. Photo of worksite during a recent LEAD work party. Note the extensive amounts of English Ivy and Clematis overtaking the larger trees in the background. The middle area is full of Himalayan Blackberry and Holly that we have begun to remove.



White lines drawn on the ground form the shape of a medicinal wheel. These lines indicate the 400 Sq m that will become an educational forest for the Yakama Community.



SHARE

The Miyawaki forest at Tu'paxin after 24 months of growth. Aspen trees are growing as high as 21 feet, and rosehips are already being picked by the local community and prepared for use by elders.

Figure 4. Images from a Miyawaki Forest planted outside the Yakama Nation Correctional and Rehabilitation Facility in Washington. The photo on the right shows the forest just two years after planting.



Sustainability, Equity,
& Justice Fund

Project Owner Form

This form must be submitted with the final grant application to convey long-term ownership of a project.

This section is to be filled out by the project team. Please fill in the blanks prior to receiving approval from Project Owner:

Project Name	LEAD Reforestation Project
Project Lead	Ava Stone + Brandon McWilliams

This project is expected to cost \$ 100 for annual maintenance. If parts/components of this project stop working or need upgrades, it is estimated that the replacement cost would be \$ 100. This project has a lifespan of 3 year(s). The Sustainability, Equity, & Justice Fund agrees to pay for the annual maintenance and replacement costs up to a cap of \$ ~~100~~ during the pilot program (2 months/~~year~~) of the project's implementation.

This section is to be filled out by the project owner. By signing this form, I confirm that the project lead has discussed this project with me, and that (please initial each box to indicate your consent):

HZ	I approve this project to be conducted at the following campus unit (facility/property/program) that I manage (list here): Large wooded lot N of 3R parking with property
HZ	My campus unit (specified above) agrees to be responsible for the financial and personnel transactions associated with this project as described below.
HZ	After the pilot program has ended, my campus unit agrees to take over the annual operational expenses, maintenance, and replacement costs of this project. During the pilot program, my campus unit agrees to pay any costs exceeding the cap specified above. My campus unit will pay for removal of the project should the project cease to secure operational, maintenance, and/or replacement funding after the pilot program grant period has expired. My campus unit will retain ownership and responsibility of the project post-removal.

With the following stipulations (if applicable):

Name: Heidi Zeretzke	Email: Heidi.Zeretzke@wwu.edu
Signature: Heidi Zeretzke	Date: 11/16/22
Title/Position: Gardner Lead/Acting Super	Phone: 360-650-2278
Department/Organization: Outdoor Maintenance WWA	

Additional Notes:



**GRANT APPLICATION
PROPOSAL REVIEW PROCESS**

Please arrange a meeting with Zinta Lucans, SEJF Program Coordinator for the Sustainability Engagement Institute, to review your drafted proposal. Once your project proposal is complete, sign and deliver it via email to: lucansz@wwu.edu.

Completed medium and large grants applications are presented to the SEJF Committee for consideration. The SEJF Program Coordinator will provide you with dates and information for your presentation once your application is complete and submitted.

Zinta Lucans
SEJF Program Coordinator, Sustainability Engagement Institute, Western Washington University

Signature: *Zinta Lucans* Date: 11/23/2022

*This signature confirms that the application has been accepted for SEJF committee review;
it does not indicate funding approval.*

Grace Wang
Director, Sustainability Engagement Institute, Western Washington University

Signature: _____ Date: _____

*This signature confirms that the application has been accepted for SEJF committee review;
it does not indicate funding approval.*