



WASHINGTON STATE UNIVERSITY
EXTENSION

2021 King County Forest Stewardship Extension Education Final Report

December 31, 2021

Task 1: An Online Forest Owners' Winter School available to King County participants

Accomplishments

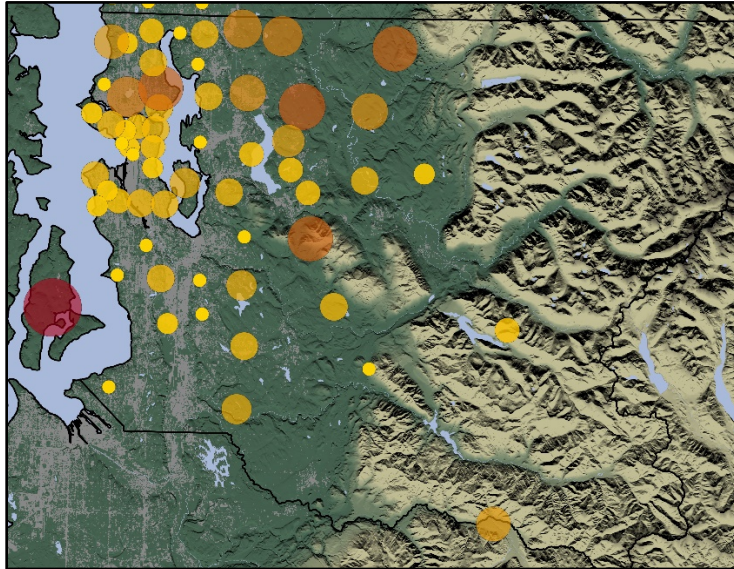
The first ever *Online* Forest Owners' Winter School was held February 27, 2021. 29 different sessions were offered, including panel discussions and landowner roundtables. Topics included wildlife, forest health, silviculture, special forest products, wildfire risk reduction, and others.

Over 1,800 people registered, representing 38 out of Washington's 39 counties, 21 other states, 2 other countries, and over 100,000 acres of forested property. 718 of the registrants attended live. Those who were not able to attend live had the opportunity to watch recordings of the sessions.

King County had by far the most participants of any county, with 331 people registered, representing 105 ownerships and 2,899 acres of forestland. 144 of the King County registrants attended live. A post-event report is included in Attachment A.

	North King County		South King County/Vashon		Total King County	
	Total	Attended Live	Total	Attended Live	Total	Attended Live
People	224	104	107	40	331	144
Ownerships	63	27	42	16	105	43
Acres	1,938	486	961	252	2,899	738

King County registrants by location (larger/darker dots = more people):



Task 2: Four Online Forest Stewardship Coached Planning courses available to King County participants

Accomplishments

All four courses are complete. The Winter course finished on March 17th, the spring course finished on June 15th, the fall afternoon course finished October 27th, and the fall evening course finished November 3rd. Topics covered included forest development, forest health, wildlife, silviculture, invasive weeds, wildfire risk reduction, and others. King County had the highest level of participation of any county, with 96 people representing 55 families/organizations, 40 properties, and 1,662 acres. The number of people and groups is much higher in north King County than south King County. This is because the north King County totals include absentee landowners who live in Seattle but own forested property in another county. The number of properties is a better indicator of north vs. south participation, which in this case is 60% north and 40% south. The acreage totals are much lower for south King County, because many of these properties are on

Vashon, where parcel sizes are particularly small. Post-event reports are included in Attachment A.

	Course	People	Families/ Organizations	Properties	Acres
North King County	Winter	16	11	7	551
	Spring	23	9	5	363
	Fall Afternoon	14	9	5	558
	Fall Evening	17	9	7	50
	Total	70	38	24	1,522
South King County	Winter	7	5	5	14
	Spring	12	7	7	81
	Fall Afternoon	2	2	2	29
	Fall Evening	5	3	2	15.6
	Total	26	17	16	139.6
Total King County	Winter	23	16	12	565
	Spring	35	16	12	444
	Fall Afternoon	16	11	7	587
	Fall Evening	22	12	9	65.6
	Total	96	55	40	1,662

Task 3: Minimum of six topical webinars available to King County participants

Accomplishments

12 webinars (two each for six topics) were put on during the summer

- Who lives here now? Wildlife at home (7/29/2021)
- The Bradley Method of noxious weed control (8/5/2021)
- Variable density thinning (8/12/2021)
- Forest health highlights (8/17/2021)
- Lions and fishers and bears, oh my! Current events in northwest wildlife management (8/19/2021)
- Healthy forest understories and the weeds that get in the way (8/26/2021)

A King County participation report is included in Attachment B.

Task 4: Minimum of six online modules published and made available to King County participants

Accomplishments

We completed six modules:

1. Managing a successful timber sale: <https://youtu.be/HKkgOaKQfb0>
2. Animal damage control: <https://youtu.be/jJHFf4Pv1Jl>
3. Forest taxes: <https://youtu.be/V9W4WHaw4Ts>
4. Fire risk reduction: <https://youtu.be/478INVgL5PM>
5. Aesthetics and recreation: <https://youtu.be/hF84tz3b-V4>
6. Threatened and endangered species: <https://youtu.be/shdcYFa34W0>

In addition, we have also done significant work on four other modules that are not yet complete:

7. Agroforestry and special forest products
8. Forest practices regulations
9. Forest insects in western Washington

The new modules are a significant improvement over prior versions. They are presented in widescreen format in 4K UHD. WSU media and graphics personnel assisted with the graphics and audio processing for improved quality. The modules are better accessible for those with disabilities, as most have descriptive audio incorporated into the narration and the closed captioning is 100% accurate and professionally edited.

We opted to have most of the modules formally peer reviewed. This formal vetting process is a critical step to ensure the accuracy and integrity of the scientific information presented. Peer review, meeting accessibility standards, securing copyright permissions, and publication-quality information makes these on-demand learning modules much more robust than simply posting webinar recordings.

The links above for these modules are not the final public links. End users will access the videos through a learning management system, where each video is combined with supplemental materials and a quiz that users must pass to complete the module. Through the learning management system, we will be able to evaluate the modules and track usage and impacts.

Task 5: Provide newsletters and online resources to King County forest owners and interested citizens

Accomplishments

Various communiques were sent to our King County newsletter list (1,426 subscribers) throughout the year to keep people informed of upcoming programs and opportunities. We regularly updated our website, consulting forester directory, small scale sawmill directory, YouTube channel, and social media sites with new material throughout the year. Our web and social media sites were viewed 308,292 times in 2021.

We also produced two new peer-reviewed publications that are available from the WSU Extension Publications website (<https://pubs.extension.wsu.edu/>).

1. Seasonal Foliage Discoloration and Loss in Pacific Northwest Conifer Trees
2. Forestry Education and Assistance for Washington Forest and Woodland Property Owners.

Copies of these publications are included in Attachment C.

Task 6: Provide individual off-site (e.g., phone, email) consultations with King County property owners as needed

Accomplishments

71 individual consultations were provided to King County property owners in 2021. Of these, 38 were for north King County, 22 were for south King County, and 11 were from unknown parts of the county.

Task 7: Follow-up evaluations of past major King County events

Accomplishments

We are conducted the following mail surveys this year:

- 2013 Preston CP (8 yr)
- 2013 Online CP (8 yr)
- 2018 Online CP (3 yr)
- 2018 Carnation CP (3 yr)
- 2018 Vashon CP (3 yr)

- 2020 Winter Online CP (1 yr)
- 2020 Fall Online CP (1 yr)
- 2020 Winter School (1 yr)
- 2020 Online Field Day (1 yr)

A total of 194 surveys were sent. In addition to the initial survey letter, three reminder letters and three or four email reminders were sent. We received 156 valid responses so far, which is an 80.4% response rate, which is extremely high for a survey. We also conducted an online one-year follow-up survey for the 2020 Online Field Day. 169 survey invitations were sent by email, followed by an email reminder. We received 53 valid responses so far (31.4% response rate). Response rates are lower for online surveys.

Updated summary reports of our follow-up survey data that includes the data collected this year are provided in Attachment D.



WASHINGTON STATE UNIVERSITY
EXTENSION

**2021 King County Forest Stewardship Extension
Education Report**

Attachment A:

Event Reports



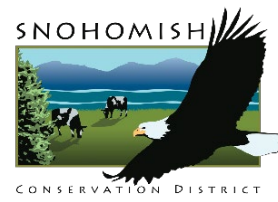
Forestry

WASHINGTON STATE UNIVERSITY
EXTENSION

Winter 2021 Online Forest Stewardship Coached Planning Executive Summary



King County



I. Introduction and program description

Program description

Forest Stewardship Coached Planning is an eight-week forestry course for people who own forested/wooded property. This comprehensive course teaches property owners everything they need to know about forest stewardship, and it helps property owners identify and achieve their long-term objectives, such as forest and ecosystem health, wildlife and biodiversity, aesthetics, and periodic income. The course includes eight evening class sessions taught by a variety of experts, a Saturday hands-on field trip (delayed during the COVID-19 pandemic), a digital library of reference materials and how-to guides, weekly reading and writing exercises, and a site visit from a service forester.

Topics covered

- | | |
|----------------------------------|--|
| 1. Intro to forest stewardship | 10. Invasive weeds |
| 2. Native trees | 11. Climate change |
| 3. Forest stand development | 12. Agroforestry and special forest products |
| 4. Forest health | 13. Wildfire risk reduction |
| 5. Wildlife habitat | 14. Timber sale issues |
| 6. Silviculture | 15. Current use taxation |
| 7. Forest inventory | 16. Cost share assistance |
| 8. Forest soils | 17. Writing a forest stewardship plan |
| 9. Water and sensitive resources | |

Forest stewardship plans

The course is structured around the development of a personalized written forest stewardship plan. Weekly class sessions relate to different sections of a forest stewardship plan. Participants write their plans incrementally during the course using weekly assignments, samples, and “coaching” from the course instructors and site visit foresters. Plans follow the Washington Integrated Forest Stewardship Plan Guidelines template. Approved plans qualify participants to receive a “Stewardship Forest” sign from the Department of Natural Resources, can be used to help qualify for cost share

grants or forest certification, and are necessary to enroll in current use tax programs (if all other requirements are met).

II. Participation

Participant numbers

A total of 60 people participated representing 33 properties, 820 private forested acres, and 3,500 acres of public land. Private ownership sizes ranged from 1 — 500 acres, with a median ownership size of 7.5 acres. About half of the participants were new forest landowners

The properties represented 10 Washington counties. King County had the highest number of participants, followed by Snohomish County.

Participant values

Participants had a variety of ownership values. The top three ownership values were observing nature, maintaining a healthy ecosystem, and aesthetic enjoyment. Six landowners (10%) valued timber income as important or very important.

III. Outcomes and Impacts

Knowledge and attitude change

The most immediate impact is knowledge change. Post-event evaluations found documented knowledge increase across 13 core forest stewardship topics. The three topics with the greatest knowledge increases were how to write a forest stewardship plan, silviculture and reforestation, and forest inventory. 100% of respondents said that the course increased their enjoyment of, and appreciation for the ecological importance of, their forestland.

Behavior change

100% of respondents intend to implement new or different stewardship practices based on what they learned in this course. The top intended practices identified by respondents were invasive species control, tree planting, wildlife habitat improvements, thinning, and wildfire risk reduction. Our one-year follow-up surveys over the past 12 years have consistently shown that approximately 87% of participants

will indeed implement one or more practices within a year of taking the course (n=594), 84% are more likely to retain their forest as forest because of taking the course (n=574), and 95% will share course knowledge with an average of 8 other people (n=608).

IV. Participant Feedback

General Impressions:

- 100% had their expectations met, with 84% having their expectation exceeded.
- 100% would recommend the class to other landowners.
- 100% were glad they took the class.
- 100% found the class to be a good value for the cost of registration.

Sample Participant Feedback

- This was the best course I have taken! Bravo! Incredibly well organized, professional, and so fun!
- Very informative, changed my preconceived notions, and now I have more informed perception. We are better able to evaluate not only our own properties, but have an informed opinion on what goes on in our counties
- This program increased our understanding, appreciation, and respect of the land we own and live on and want to do our best to preserve it and pass it along to future generations better than we received it.
- Great course! Lots of good information for managing my 1 acre urban forest. Thanks!
- The information was plentiful and useful. I really appreciated the one to one check ins as well.
- Phenomenal class. Thanks to all who made this possible. I know the hours of preparation and ongoing behind the scenes work over the years are uncountable.
- You were all welcoming, thorough, encouraged questions and gave good answers, personable, enthusiastic about their topics. Researched info if they didn't know. Probably have given this talk dozens of times but made it fresh and interesting.

- One of the best organized online courses ever. The syllabus, flash drive files and posted videos of classes were invaluable.
- The customized course packet was especially helpful. The personalization of the content to my land made the entire course more engaging.
- We have especially appreciated the opportunity to have discussion before & after class, as well as putting things in chat which you all have monitored so closely.
- The course was very well organized and executed. Great communication via multiple methods and follow up with questions and open items. The online venue was also easy to use and effective (though we'd all like to get together again).
- Excellent team; well organized!
- Well facilitated. Good energy every time they presented. I especially liked the Lounge sessions and received some really good advice. The e-mail responses to my questions were also much appreciated.
- It was easy to see that you both are very passionate about your field of work. We appreciated your presentations for the easy and enjoyable way you passed along the information.
- Kevin is artful at delivering information in a very accessible way - weaving together the big picture with details that leads to deeper understanding for me. Brendan also clearly holds loads of experience and knowledge. I learned so much from both of them.
- Very well-done course - there's always a lot to try to cover in a short amount of time but I thought that it was well balanced. Even hearing about timber harvesting was a good learning session even if we are not interested in growing trees for lumber. All sessions were well prepared and well presented (and with some humor).
- Best time and money we've spent in a long time. Every presentation was interesting, even those which didn't pertain much to us.
- I now know my property much better now and can identify trees much better. I can see a forest and tell what is going on.
- Excellent amount of information, the depth and breadth of which definitely exceeded our expectations.

- Brendan and Kevin did an outstanding job of running an on-line course. Incredibly well facilitated, supported. I was very impressed with their use of online tech in a seamless way.
- So much information to absorb but it is broken into manageable pieces to make it attainable to create a plan at the end of the course.
- I had high expectations. These were exceeded. The presentations were delivered at a challenging but accessible pace. The science underpinning things was nearby. Excellent work by the entire team!
- I am so glad I took this course. It was a lot of work but I am now much more knowledgeable about what a forest needs to be healthy, attractive and with a diverse habitat.
- I appreciate the time and effort put into the course. I am surprised at the professional/thorough quality of the course given that it's offered practically free.
- Fantastic and passionate presenters. Very engaging.
- Appreciate the expertise, engaging format, and personalized attention.
- We are overall very satisfied with the content of the program and are very happy that we spent the last eight Wednesday evenings with you all. Thank you very much.
- I'm very impressed with the course presenters and the content. Quite frankly, I had plenty of college courses (a long time ago) for which I paid much more and received much less. And on that idea, this course has generated an interest in gaining a much more in-depth education about forest management.
- We enjoyed and appreciated all the comprehensive lessons from all of the instructors. We learned so much that we will apply in caring for our young forest, and are so glad to know we can reach out to you for further guidance as needed.
- High quality, excellent information that is exactly what we were hoping for. It will no doubt help us both preserve the land we are on but also ensure that we find much more enjoyment in living here. We will be putting together a plan so we can lock up the majority of the land in Open Space Conservation.
- We look at forests very differently now, noting crown ratios, need for thinning, spotting symptoms of laminated root rot, etc. We're impressing our neighbors thanks to you.

- My husband was very skeptical of 3 hours of zoom each week as a learning format and he LOVED this course.

V. Acknowledgements

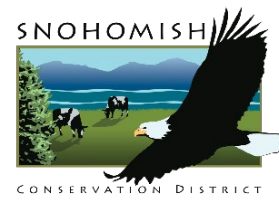
The Forest Stewardship Coached Planning program is an educational partnership between Washington State University and the Washington Department of Natural Resources. The 2020 northwest WA online courses were made possible by funding from Washington State University, Island County, King Conservation District, King County, San Juan County, Skagit County, and the Snohomish Conservation District. Additional in-kind support was provided by King Conservation District, King County, and the Washington Department of Natural Resources.



Forestry

WASHINGTON STATE UNIVERSITY
EXTENSION

Spring 2021 Online Forest Stewardship Coached Planning Executive Summary



I. Introduction and program description

Program description

Forest Stewardship Coached Planning is an eight-week forestry course for people who own forested/wooded property. This comprehensive course teaches property owners everything they need to know about forest stewardship, and it helps property owners identify and achieve their long-term objectives, such as forest and ecosystem health, wildlife and biodiversity, aesthetics, and periodic income. The course includes eight evening class sessions taught by a variety of experts, a Saturday hands-on field trip (done virtually due to the COVID-19 pandemic), a digital library of reference materials and how-to guides, weekly reading and writing exercises, and a site visit from a service forester.

Topics covered

- | | |
|----------------------------------|--|
| 1. Intro to forest stewardship | 10. Invasive weeds |
| 2. Native trees | 11. Climate change |
| 3. Forest stand development | 12. Agroforestry and special forest products |
| 4. Forest health | 13. Wildfire risk reduction |
| 5. Wildlife habitat | 14. Timber sale issues |
| 6. Silviculture | 15. Current use taxation |
| 7. Forest inventory | 16. Cost share assistance |
| 8. Forest soils | 17. Writing a forest stewardship plan |
| 9. Water and sensitive resources | |

Forest stewardship plans

The course is structured around the development of a personalized written forest stewardship plan. Weekly class sessions relate to different sections of a forest stewardship plan. Participants write their plans incrementally during the course using weekly assignments, samples, and “coaching” from the course instructors and site visit foresters. Plans follow the Washington Integrated Forest Stewardship Plan Guidelines template. Approved plans qualify participants to receive a “Stewardship Forest” sign from the Department of Natural Resources, can be used to help qualify for cost share

grants or forest certification, and are necessary to enroll in current use tax programs (if all other requirements are met).

II. Participation

Participant numbers

A total of 66 people participated, representing 35 families, 33 properties, and 997 forested acres. Ownership sizes ranged from 1 – 320 acres, with a median ownership size of 9 acres. More than half of the participants were new forest landowners

The properties represented 9 Washington counties. King County had the highest number of participants, followed by Snohomish County.

Participant values

Participants had a variety of ownership values. The top four ownership values were maintaining a healthy ecosystem, aesthetic enjoyment, wildlife habitat, and observing nature. 13% of participants valued timber income as important or very important.

III. Outcomes and Impacts

Knowledge and attitude change

The most immediate impact is knowledge change. Post-event evaluations found documented knowledge increase across 15 core forest stewardship topics. The four topics with the greatest knowledge increases were how to write a forest stewardship plan, agroforestry/special forest products, forest soils, and forest inventory. 100% of respondents said that the course increased their enjoyment of, and appreciation for the ecological importance of, their forestland.

Behavior change

100% of respondents intend to implement new or different stewardship practices based on what they learned in this course. The top intended practices identified by respondents were invasive species control, wildfire risk reduction, wildlife habitat improvements, and thinning. Our one-year follow-up surveys over the past 12 years have consistently shown that approximately 87% of participants will indeed implement one or more practices within a year of taking the course (n=594), 84% are more likely

to retain their forest as forest because of taking the course (n=574), 92% will enjoy their forest more (n=582), and 95% will share course knowledge with an average of 8 other people (n=608).

IV. Participant Feedback

General Impressions:

- 100% had their expectations met, with 96% having their expectation exceeded.
- 100% would recommend the class to other landowners.
- 100% were glad they took the class.
- 100% found the class to be a good value for the cost of registration.

Sample Participant Feedback

- Fantastic breadth and depth for a beginner. I feel much more confident to identify and address issues on my property and also feel more informed about larger forestry issues affecting the state.
- Excellent course. I wish I'd had time to learn this 35 years ago when we bought the property.
- Learned much more than I expected; it was far more rigorous than I imagined it would be.
- I hope other WSU Extension courses are half as good as this one :-). Very motivated to continue lifelong learning through other WSU courses and I hope to instill in my kids the opportunity they have for lifelong learning through programs like this one.
- This class is fantastic. I will never look at trees or forests the same again, and I'm so glad. Knowing what to look for and what there is to see makes every visit into our woods so much more interesting. And we know where to go if we feel unsure about anything.
- Excellent. Not at all what we expected. Anticipated a dry science course - this is not that!
- So very prepared. Top notch content. I wish my college professors had been half as good.

- Well organized. Well presented. Lots of resources. LOTS of information.
- The course is excellent at not pushing a particular agenda onto the participants. I really appreciate the balanced perspectives provided.
- Great presenters, super knowledgeable, and speak to very relatable issues to landowners.
- We've learned so much and realize the enormity of the responsibility we have for maintaining our little forest for the future.
- Very well organized and presented. All presentations were well done and useful.
- Wonderful facilitators - super bright, knowledgeable, great teachers, and very thoughtful, kind, and helpful. Thank you!
- I see our woods in a completely different light. I also feel a deeper sense of responsibility, and much better prepared, to monitor and affect the health of our forest.
- "Extremely helpful. So very happy we signed up, and very grateful at the breadth of content covered and the knowledgeability of all the presenters. Knew *nothing* about forest management beforehand, and feel well prepared to write a reasonable forest management plan now.
- I really, really, really loved the provided content, both the library of reference materials and the personalized land maps! Blown away at the generosity of the instructors and the amount of time invested by you in course preparation. I know what it takes to create good learning content, so I recognize how much work was involved.
- A great learning experience.
- We have really enjoyed this course!
- The course overall was spectacular with a tremendous amount of information presented in a short span of time.
- Very engaging class even with the webinar format!
- This information is well worth the time and money expended. The ongoing support past the class time is very generous.
- Learned a lot, was rarely bored (unusual for me) and eager to finish our Stewardship plan.

- Informative and entertaining!
- I wanted to learn more about my forest. Instead, this course completely changed how I look at what makes a healthy forest, how I can up my wildlife, the coming climate change...
- I would love for every forest owner to have the information from this course.
- This was a fantastic experience, knowledge to last me a lifetime!
- Keep this program going, it is such a valuable resource. Biggest asset is the personalities of those teaching and administering this course. You're all around nice people who we'd want to spend some time around the campfire with!
- I'm eternally grateful. It's been an inspiring experience.

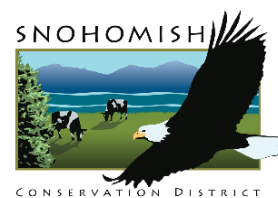
V. Acknowledgements

The Forest Stewardship Coached Planning program is an educational partnership between Washington State University and the Washington Department of Natural Resources. The 2020 northwest WA online courses were made possible by funding from Washington State University, Island County, King Conservation District, King County, San Juan County, Skagit County, and the Snohomish Conservation District. Additional in-kind support was provided by King County, Skagit Conservation District, Snohomish Conservation District, Washington Department of Natural Resources, and Whidbey Island Conservation District.



WASHINGTON STATE UNIVERSITY
EXTENSION

Online Forest Stewardship Coached Planning Fall 2021 Afternoon Class Executive Summary Report



I. Introduction and program description

Program description

Forest Stewardship Coached Planning is an eight-week forestry course for people who own forested/wooded property. This comprehensive course teaches property owners everything they need to know about forest stewardship, and it helps property owners identify and achieve their long-term objectives, such as forest and ecosystem health, wildlife and biodiversity, aesthetics, and periodic income. The course includes eight evening class sessions taught by a variety of experts, a Saturday hands-on field trip (done virtually due to the COVID-19 pandemic), a digital library of reference materials and how-to guides, weekly reading and writing exercises, and a site visit from a service forester.

Topics covered

- | | |
|----------------------------------|--|
| 1. Intro to forest stewardship | 10. Invasive weeds |
| 2. Native trees | 11. Climate change |
| 3. Forest stand development | 12. Agroforestry and special forest products |
| 4. Forest health | 13. Wildfire risk reduction |
| 5. Wildlife habitat | 14. Timber sale issues |
| 6. Silviculture | 15. Current use taxation |
| 7. Forest inventory | 16. Cost share assistance |
| 8. Forest soils | 17. Writing a forest stewardship plan |
| 9. Water and sensitive resources | |

Forest stewardship plans

The course is structured around the development of a personalized written forest stewardship plan. Weekly class sessions relate to different sections of a forest stewardship plan. Participants write their plans incrementally during the course using weekly assignments, samples, and “coaching” from the course instructors and site visit foresters. Plans follow the Washington Integrated Forest Stewardship Plan Guidelines template. Approved plans qualify participants to receive a “Stewardship Forest” sign from the Department of Natural Resources, can be used to help qualify for cost share grants or forest certification, and are necessary to enroll in current use tax programs (if all other requirements are met).

II. Participation

Participant numbers

A total of 50 people participated, representing 29 families and organizations, 26 properties, and 6,091 forested acres. Ownership sizes ranged from 0.1 — 500 acres, with a median ownership size of ten acres. 43% of the participants were new forest landowners. For 85% of participants, this was their first WSU Extension Forestry program.

The properties represented seven Washington counties. Island County had the highest number of participants, followed by King and Snohomish County.

Participant values

Participants had a variety of ownership values. The top four ownership values were maintaining a healthy ecosystem, observing nature, wildlife habitat, and personal attachment to the land. 12% of participants valued timber income as important.

III. Outcomes and Impacts

Knowledge and attitude change

The most immediate impact is knowledge change. Post-event evaluations found documented knowledge increase across 15 core forest stewardship topics. The four topics with the greatest knowledge increases were how to write a forest stewardship plan, forest development, silviculture and reforestation, and agroforestry/special forest products. 100% of respondents said that the course increased their enjoyment of, and appreciation for the ecological importance of, their forestland.

Behavior change

100% of respondents who had forest land intend to implement new or different stewardship practices based on what they learned in this course. The top intended practices identified by respondents were thinning, invasive species control, wildlife habitat enhancement, and wildfire risk reduction. Our one-year follow-up surveys over the past 12 years have consistently shown that approximately 88% of participants will indeed implement one or more practices within a year of taking the course (n=645), 85% are more likely to retain their forest as forest because of taking the course (n=627), 93% will enjoy their forest more (n=634), 87% will recommend the course to someone else (n=677), and 95% will share course knowledge with an average of 8 other people (n=667).

IV. Participant Feedback

General Impressions:

- 100% had their expectations met, with 85% having their expectation exceeded.
- 100% would recommend the class to other landowners.
- 100% were glad they took the class.
- 100% found the class to be a good value for the cost of registration.

Sample Participant Feedback

- I can't say enough about how valuable I have found this class. I have learned something (or many things) in every session that has helped me understand forests and ecosystems better
- This was a great course, that lived up to the expectation that it would appeal to a wide variety of folks interest in forest stewardship.
- This is the best class I could have taken. I've gained a great deal of knowledge that is going to help not only with managing our property but also with my writing in general and my ability to intelligently discuss forest maintenance and planning with other people. Thank you for this!
- Completely worth all of my time.
- Biggest regret: I wish I'd taken it decades ago.
- I learned so much and will be acting on a great majority of the best practices that were shared.
- The class is very informative and inspiring to get us to make some changes on our land – while supporting us to accomplish our own goals.
- I really liked it! I feel like I've learned a lot about areas I don't think I would have thought about. I am VERY happy I took the course.
- A great, informative class that every forest owner should take.
- I feel privileged and honored to be taking this class. I'm learning a lot and I feel as though we're finally taking serious steps toward caring for the forest we have and protecting the forest of the future.
- Lots more people should take this class!

- I learned a lot from each session--and also how much more I still have to learn, along with some sense of where to go to get the additional information. Presentations were clear and well-organized.
- Each class has been excellent with an abundance of resource material.
- I have already recommended it to some neighbors and family members.
- Learned a lot and really appreciate being connected with WSU and forest experts.
- I have taken quite a few of your classes and they always deliver excellent information. The instructors are on point and willing to take the time to answer questions.
- I'm much more appreciative of what we have surrounding us.
- I definitely feel the care and interest in my learning experience.
- Just awesome. So sad that the class is over!!
- Everything worked well, and I think that the way the class is organized is very effective, and the information very understandable.
- Consistently knowledgeable and engaged. Never once felt like the presentations were being 'phoned-in'!
- It's hard to do a course like this all online, but I feel like I not only learned a lot, I was part of a learning community.
- Fantastic overview with links to an abundance of resources and additional materials that I would not have found on my own.
- Having spent more than 20 years connected to education, I'd say this was a \$10,000 dollar course, especially with the invitation to stay in touch with the teachers.
- I thoroughly enjoyed the course and learned so much. Thank you, Kevin, for all of your hard work with putting this on. I know it is an incredible amount of work and really appreciate the degree of thought and detail that has been put into making this such a valuable course.
- This was an incredible course, and I greatly appreciate the opportunity to take it, despite the fact that I was working with a small urban area that I don't own. With what I have I learned in this course, I hope to get more involved in urban forest management.
- Super informative. There's a TON of information, and additional resources but Kevin does a great job of highlighting what to start with.

- The class is excellent. Guest speakers are knowledgeable, and Kevin is amazing with how he presents and organizes each session.

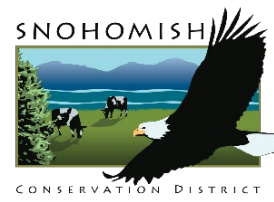
V. Acknowledgements

The Forest Stewardship Coached Planning program is an educational partnership between Washington State University and the Washington Department of Natural Resources. The 2020 northwest WA online courses were made possible by funding from Washington State University, Island County, King Conservation District, King County, San Juan County, Skagit County, and the Snohomish Conservation District. Additional in-kind support was provided by King County, Skagit Conservation District, Snohomish Conservation District, Washington Department of Natural Resources, and Whidbey Island Conservation District.



WASHINGTON STATE UNIVERSITY
EXTENSION

Online Forest Stewardship Coached Planning Fall 2021 Evening Class Executive Summary Report



I. Introduction and program description

Program description

Forest Stewardship Coached Planning is an eight-week forestry course for people who own forested/wooded property. This comprehensive course teaches property owners everything they need to know about forest stewardship, and it helps property owners identify and achieve their long-term objectives, such as forest and ecosystem health, wildlife and biodiversity, aesthetics, and periodic income. The course includes eight evening class sessions taught by a variety of experts, a Saturday hands-on field trip (done virtually due to the COVID-19 pandemic), a digital library of reference materials and how-to guides, weekly reading and writing exercises, and a site visit from a service forester.

Topics covered

- | | |
|----------------------------------|--|
| 1. Intro to forest stewardship | 10. Invasive weeds |
| 2. Native trees | 11. Climate change |
| 3. Forest stand development | 12. Agroforestry and special forest products |
| 4. Forest health | 13. Wildfire risk reduction |
| 5. Wildlife habitat | 14. Timber sale issues |
| 6. Silviculture | 15. Current use taxation |
| 7. Forest inventory | 16. Cost share assistance |
| 8. Forest soils | 17. Writing a forest stewardship plan |
| 9. Water and sensitive resources | |

Forest stewardship plans

The course is structured around the development of a personalized written forest stewardship plan. Weekly class sessions relate to different sections of a forest stewardship plan. Participants write their plans incrementally during the course using weekly assignments, samples, and “coaching” from the course instructors and site visit foresters. Plans follow the Washington Integrated Forest Stewardship Plan Guidelines template. Approved plans qualify participants to receive a “Stewardship Forest” sign from the Department of Natural Resources, can be used to help qualify for cost share grants or forest certification, and are necessary to enroll in current use tax programs (if all other requirements are met).

II. Participation

Participant numbers

A total of 47 people participated, representing 27 families and organizations, 27 properties, and 372 forested acres. Ownership sizes ranged from 0.5 — 57.3 acres, with a median ownership size of 8.6 acres. 63% of the participants were new forest landowners. For 79% of participants, this was their first WSU Extension Forestry program.

The properties represented seven Washington counties. King County had the highest number of participants, followed by Island and Snohomish County.

Participant values

Participants had a variety of ownership values. The top four ownership values were maintaining a healthy ecosystem, privacy/rural lifestyle, observing nature, and wildlife habitat. 19% of participants valued timber income as important.

III. Outcomes and Impacts

Knowledge and attitude change

The most immediate impact is knowledge change. Post-event evaluations found documented knowledge increase across 15 core forest stewardship topics. The four topics with the greatest knowledge increases were how to write a forest stewardship plan, forest inventory, forest soils, and invasive weeds. 100% of respondents said that the course increased their enjoyment of, and appreciation for the ecological importance of, their forestland.

Behavior change

100% of respondents who had forest land intend to implement new or different stewardship practices based on what they learned in this course. The top intended practices identified by respondents were thinning, invasive species control, and wildlife habitat enhancement. Our one-year follow-up surveys over the past 12 years have consistently shown that approximately 88% of participants will indeed implement one or more practices within a year of taking the course (n=645), 85% are more likely to retain their forest as forest because of taking the course (n=627), 93% will enjoy their forest more (n=634), 87% will recommend the course to someone else (n=677), and 95% will share course knowledge with an average of 8 other people (n=667).

IV. Participant Feedback

General Impressions:

- 100% had their expectations met, with 71% having their expectation exceeded.
- 100% would recommend the class to other landowners.
- 100% were glad they took the class.
- 100% found the class to be a good value for the cost of registration.

Sample Participant Feedback

- To say I've learned a lot in this course is an understatement. I'm so happy I took it, and I'm amazed at how many useful things I've learned.
- I learned so much that I fear that it is leaking out of my ears.
- Incredibly grateful for this class & all the contributors! This has helped us tremendously & we hope to take more soon!
- This was worth more than we expected. Classes were fun and held our attention.
- I appreciate Kevin's willingness to meet/chat individually so I could ask site specific questions. He is a valuable resource to the forestland owners.
- This course is a terrific resource to owners of small forestlands. I would recommend it to any private owners of forest land.
- You guys are amazing. Thanks so much for a wonderful course.
- I don't know how you guys can do this course for the price. It's amazing.
- I enjoyed every class, and it was well worth my time.
- 100% happy we took this course!
- I've already recommended the class to several people, I think they'll enjoy their property so much more, better understanding what's happening.
- We are so happy we took this class, we bring it up to each other daily and discuss the materials daily. This was the best thing we could have done next to buying our land.
- The class accomplished the main goal of creating a Stewardship Plan. Who knew I was going to learn so much in the meantime?
- There are several people I've already recommended the class to - I think it will just make their forest ownership so much more enjoyable and informed.

- Excellent organization. This has been well-thought through.
- This course is very well organized, it is evident it's put on by pros that have done this before.
- I am much more aware and appreciative of the complexity of forest management. I will never be a forester, but have increased respect for landowners who are serious and hard-working to better manage their properties.
- Quality content, delivered by knowledgeable people who care. A very supportive environment to learn and ask questions.
- Remote learning can be difficult. The format did an excellent job keeping me engaged with just the right amount of science and humor.
- The course was organized incredibly, incredibly well, the content and the support material in our packets were nothing short of excellent.
-

V. Acknowledgements

The Forest Stewardship Coached Planning program is an educational partnership between Washington State University and the Washington Department of Natural Resources. The 2020 northwest WA online courses were made possible by funding from Washington State University, Island County, King Conservation District, King County, San Juan County, Skagit County, and the Snohomish Conservation District. Additional in-kind support was provided by King County, Skagit Conservation District, Snohomish Conservation District, Washington Department of Natural Resources, and Whidbey Island Conservation District.

2021 Online Forest Owners' Winter School – Post Event Report



Extension Forestry
WASHINGTON STATE UNIVERSITY



WASHINGTON STATE DEPARTMENT OF
NATURAL RESOURCES

Contents

Contents	2
Introduction and program description.....	3
Online adaptation	3
Sessions offered	3
Virtual Lunch tables.....	4
Participants	4
Total participation.....	4
Figure 1: Registration locations	4
Table 1: Participation by county:	5
Use of recordings	6
Reaching a new audience	6
Participant response.....	6
Overall reception	6
Reception of the online format	6
Table 2: Willingness to attend a future Winter School.....	7
Table 3: Preference for future Winter School format	7
Outcomes and impacts	7
Table 4: Objectives the Winter School will help participants accomplish	8
Example participant feedback.....	8
Acknowledgements	9

Introduction and program description

Online adaptation

Washington State University Extension Forestry, in partnership with the Washington State Department of Natural Resources and other agencies, hosts a Forest Owners' Winter School every year, usually one in eastern WA and one in western WA. These all-day Saturday events are among our most popular and impactful programs. Participants choose from a variety of classes and demonstrations offered throughout the day on a variety of forest stewardship topics.

In 2021, a traditional in-person winter school was not possible given the social distancing requirements due to the COVID-19 pandemic. We adapted to this by using Zoom to offer an Online Forest Owners' Winter School, which was held on Saturday, February 27, 2021.

Sessions offered

The Winter School featured 29 different live webinar sessions including classes, demonstrations, panel discussions, and landowner roundtables. Instructors and moderators included WSU faculty and staff, experts from ten partner agencies, and professional consulting foresters.

- | | |
|--|---|
| 1. Forest health in Eastern WA | 15. Managing your forest in a changing climate |
| 2. Forest health in Western WA | |
| 3. Intro to Forest Practice Rules and Small Forest Landowner Assistance | 16. Native American uses of the land |
| 4. Forest soils | 17. Native pollinators in managed forest landscapes |
| 5. Growing shiitake mushrooms on logs | 18. Non-timber forest products |
| 6. Hardwood management | 19. Panel: Current timber markets |
| 7. Invasive forest weeds in Eastern WA | 20. Panel: What services to expect from consulting foresters and selling timber |
| 8. Invasive forest weeds in Western WA | 21. Panel: Working with a land trust |
| 9. Landowner Assistance | 22. Red alder management |
| 10. Landowner Roundtable: The best tools I've ever owned | 23. Silvopasture |
| 11. Landowner Roundtable: I would have done things differently—I wish somebody would have told me about... | 24. Tree planting/site prep in Eastern WA |
| 12. Living with beavers | 25. Tree planting/site prep in Western WA |
| 13. Managing for big game | 26. Western redcedar dieback: What's happening and how you can help |
| 14. Managing for songbirds | 27. Wildfire risk reduction in Eastern WA |
| | 28. Wildfire risk reduction in Western WA |
| | 29. Wildlife species and habitat |

Virtual Lunch tables

An important element of our in-person events is networking among participants that happens during breaks at in-person events. To facilitate this type of environment in a virtual setting, during the lunch break we created “virtual lunch tables” – Zoom meeting rooms where participants could turn on their cameras and microphones and interact with one another. There were five different virtual lunch tables, each with a different theme: forest health, wildlife, agroforestry and special forest products, timber harvest and professional services, and silviculture.

Participants

Total participation

Over 1,800 people registered, representing 38 out of Washington’s 39 counties, 21 other states, 2 other countries, and over 100,000 acres of forested property. 718 people attended live, representing 535 ownerships and 49,255 forested acres.

Figure 1: Registration locations

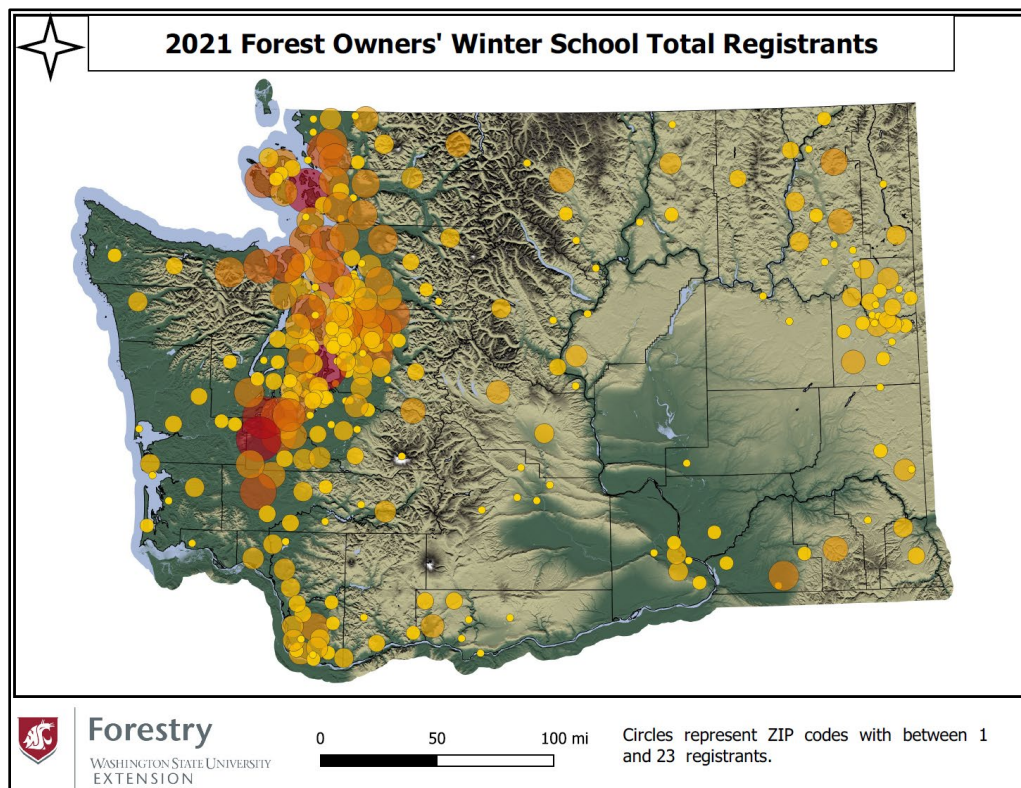


Table 1: Participation by county:

County	Live Attendees	Ownerships	Forested Acres
King	144	113	6,006
Thurston	49	38	944
Snohomish	43	31	4,213
Kitsap	41	29	8,556
Outside WA	37	28	3,948
Clark	34	24	3,172
Skagit	32	24	390
Spokane	33	24	952
Island	33	23	214
Stevens	32	22	5,192
Whatcom	26	22	5,552
San Juan	24	20	580
Lewis	26	19	652
Pierce	23	18	462
Jefferson	18	13	323
Clallam	12	10	228
Mason	13	9	320
Okanogan	12	9	1,346
Benton	13	8	554
Walla Walla	12	7	397
Cowlitz	11	6	182
Klickitat	5	5	1,143
Asotin	4	4	205
Kittitas	4	4	44
Whitman	5	4	275
Chelan	5	3	87
Columbia	5	3	457
Grays Harbor	5	3	258
Skamania	3	3	210
Pacific	3	2	77
Adams	2	1	3
Douglas	2	1	1
Franklin	1	1	2
Garfield	1	1	40
Lincoln	1	1	2,200
Pend Oreille	2	1	40
Wahkiakum	2	1	30
Total	718	535	49,255

Use of recordings

Registrants, who did not attend live were given access to the webinar recordings after the event. 79% of survey respondents who did not attend live said they “definitely” planned on viewing the Winter School recordings, and 39% said that they had registered with the intent of only viewing the recordings after the event ($n = 178$). In the first four months following the event, the recordings had been viewed 1,047 times.

Reaching a new audience

For 55% of participants, this was their first WSU Extension Forestry education event ($n = 1,458$).

Participant response

Overall reception

The Winter School sessions were generally well-received. Average participant rankings of each session and the experience of the day on a scale of 1 (poor) to 4 (excellent) were high. 98% of respondents rated the overall experience as “excellent” or “good,” with 72% rating it as “Excellent” ($n = 256$). The mean response for overall experience of the day was 3.69. The mean response for individual webinar sessions were all ranked between “good” and “excellent.”

Reception of the online format

83% of respondents said they “really” liked the online format, 15% said they “somewhat” liked it, and only 2% said they did not like it ($n = 273$).

Based on lessons learned from the 2020 Online Forest Owners’ Field Day, we changed the way we had people connect to the webinars. Rather than have people connect through their web browser using links, which introduced authentication/account issues, we had people download the Zoom desktop or mobile client in advance and manually enter the meeting ID into the client. We developed a visual instruction guide to this entire process. This eliminated all of the connection issues we had for the Field Day. Only a handful of people were unable to connect, and when contacted they admitted to not being willing to read or follow any of the instructions provided.

Overall, 81% of respondents reported no technical issues at all. Only 4.5% said they had significant technical issues, most of which were an issue with limited broadband internet service and poor bandwidth. While this wasn’t a widespread problem, it

demonstrates the need to continue improving rural broadband internet service for adequate access to online education services.

Respondents showed a strong preference for future Winter School programming to be done online, though the majority also said they would like the option of both an online and an-person version. Only 1% thought we should discontinue the online version. 23% of respondents said they would probably or definitely not attend an in-person event, with 15% saying they would only attend online if there was no other option.

Table 2: Willingness to attend a future Winter School

Based on your experience would you attend another WS	Online?	In-person?
Definitely yes	78.3%	23.1%
Probably yes	20.2%	38.8%
Probably not	0.4%	20.9%
Only if there was no other option	0.4%	15.3%
Definitely not	0.7%	1.9%
	n=272	n=268

Table 3: Preference for future Winter School format

In the future (beyond the current pandemic), do you think we should:	
Go back to offering ONLY in-person Winter Schools	1%
Keep offering ONLY online Winter Schools	20%
Offer BOTH online and in-person Winter Schools	79%
	n = 266

Outcomes and impacts

- 99% said they learned something new (*n*= 265).
- 98% said the Winter School provided practical information that they could use on their property (*n*= 267):
- 89% of respondents said they will do something new or different on their property based on what they learned at the Winter School (*n*= 228).

96% of live attendee respondents said the winter school will help them meet at least one of their forest stewardship objectives. Improving forest health, improving wildlife habitat, and decreasing wildfire risks were cited most frequently as objectives the Winter School will help participants accomplish.

Table 4: Objectives the Winter School will help participants accomplish

What objectives will this Winter School help you accomplish?	#	% of respondents
Improve forest health	173	76.2%
Improve habitat	132	58.1%
Decrease risk from fire	106	46.7%
Decrease risks from insects or disease	88	38.8%
Decrease invasive species	87	38.3%
Contribute to climate change mitigation	74	32.6%
Improve productivity for growing trees	71	31.3%
Improve wood quality	42	18.5%
Increase tree cover	42	18.5%
Improve income opportunity	40	17.6%
Protect cultural resources	31	13.7%
Decrease risk of erosion	27	11.9%
Improve recreational opportunity	25	11.0%
Other	17	7.5%
Increase livestock forage	15	6.6%

n = 227

Example participant feedback

- Wonderful way to get information! While in-person is more fun, this was a very convenient way to get a LOT of people together. I (well, we) enjoyed all the sessions we "attended." Got lots of info, planning to go to the recordings/questions for more.
- Very engaged presenters. They showed a lot of enthusiasm and willingness to help.
- The sessions I attended were solid and interesting. I enjoyed having the chance to attend virtually as it made it more likely that I could attend.
- VERY WELL DONE!!! Having the recordings available to watch at different times of day is especially useful for me, my internet is metered and can be very slow at different times of the day and month.
- Thanks for hosting this! Very informative, and can't wait to see the slides online.
- Such valuable information from the experts! Thank you so much for offering this. I did like the collective participant teachers being from all around the Pacific NW and not just WA state.

- Very engaged presenters. They showed a lot of enthusiasm and willingness to help.
- Valuable info re: forest management for the novice. Looking forward reviewing the missed sessions, especially the fire management.
- There are so many extremely useful and highly educational sessions it is difficult to pick from the overlapping sessions. Great work and please continue the great work.
- The winter class was very enjoyable and informative for me. Great individual classes and presentations. I will be watching some of the ones I missed.
- Overall, I found the Winter school to be very good and the sessions I attended were well presented and informative. I got a lot of renewed information that I hope to be beneficial. My answer to how well I liked the online school is that it was well done, and though I would prefer to have it in person, I actually found it much more convenient to attend.
- It was very good...We greatly appreciate the time and effort put into making this online Winter School happen. It was well publicized and organized, and you went out of your way to make sure people were able to connect beforehand.
- It targeted not only on the large forest landowner, but it also focused on areas of interest to the smaller landowners—something for everyone!
- If this had been an "in person" format, I would not have been able to attend. I appreciate the ZOOM option.

Acknowledgements

This program is an educational partnership between Washington State University (WSU) Extension Forestry and the Washington State Department of Natural Resources (DNR). This program was made possible in part by funding support from WSU, DNR, Island County, King Conservation District, King County, Lewis County, Pacific County, San Juan County, Skagit County, Stevens County, Snohomish Conservation District, USDA Forest Service, the Renewable Resources Extension Act.

Extension programs and employment are available to all without discrimination. Evidence of noncompliance may be reported through your local Extension office.



WASHINGTON STATE UNIVERSITY
EXTENSION

**2021 King County Forest Stewardship Extension
Education Report**

Attachment B:

Webinar Participation Report



WASHINGTON STATE UNIVERSITY
EXTENSION
FORESTRY

King County

2021 Webinar Participant Report

The WSU Extension Forestry program offered a summer webinar series to King County forest owners and citizens interested in forest stewardship. Each webinar was offered twice on the same day, for a total of 12 webinars.

Webinars offered

1. Who lives here now? wildlife at home (7/29/2021)

Description: Let's take a deep dive into the specific habitat needs of some iconic species that utilize our small forest ownerships. Pileated woodpeckers, Douglas squirrels, and small owls come to mind. And there will be some great photos too!

Instructor: Ken Bevis, Stewardship Wildlife Biologist, WA DNR

2. The Bradley Method of noxious weed control (8/5/2021)

Description: Are you tired of your Sisyphean struggle against noxious weeds? Of working all summer, only to be crushed as that ball of blackberry canes come rolling back down the hill? The Bradley Method is an alternative approach to noxious weed control, utilizing the slow favoring of native plants. Perhaps this low-stress approach to weed control is right for your property.

Instructor: Steven Burke, Manager, King County Noxious Weed Control Program

3. Variable density thinning (8/12/2021)

Description: Are you trying to diversify your stand of even-aged Douglas-fir? Are you interested in harvesting, but worried about the ecological impacts? Variable density thinning is a fantastic method that can add structural, age-class, and species diversity

to almost any forest. If you dream of propelling your forest to mature, more old-growth-like, conditions, then this method is for you. control, utilizing the slow favoring of native plants. Perhaps this low-stress approach to weed control is right for your property.

Instructor: Patrick Shults, Extension Forester, Washington State University

4. Forest health highlights (8/17/2021)

Description: Did you see the parch blight this year? Have you observed an increase in tree mortality on your property? Come hear about current forest health issues, concerns, and trends from an expert.

Instructor: Glenn Kohler, Forest Entomologist, WA DNR

5. Lions and fishers and bears, oh my! Current events in Northwest wildlife management (8/19/2021)

Description: Lots of press lately on big predators. Did grizzly bears get re-introduced? What about the wolves? And those fishers showing up. And even Marbled Murrelets! And whatever happened to the spotted owl? This talk will be an even-handed, biologically based discussion of the latest big issues.

Instructor: Ken Bevis, Stewardship Wildlife Biologist, WA DNR

6. Healthy forest understories and the weeds that get in the way (8/26/2021)

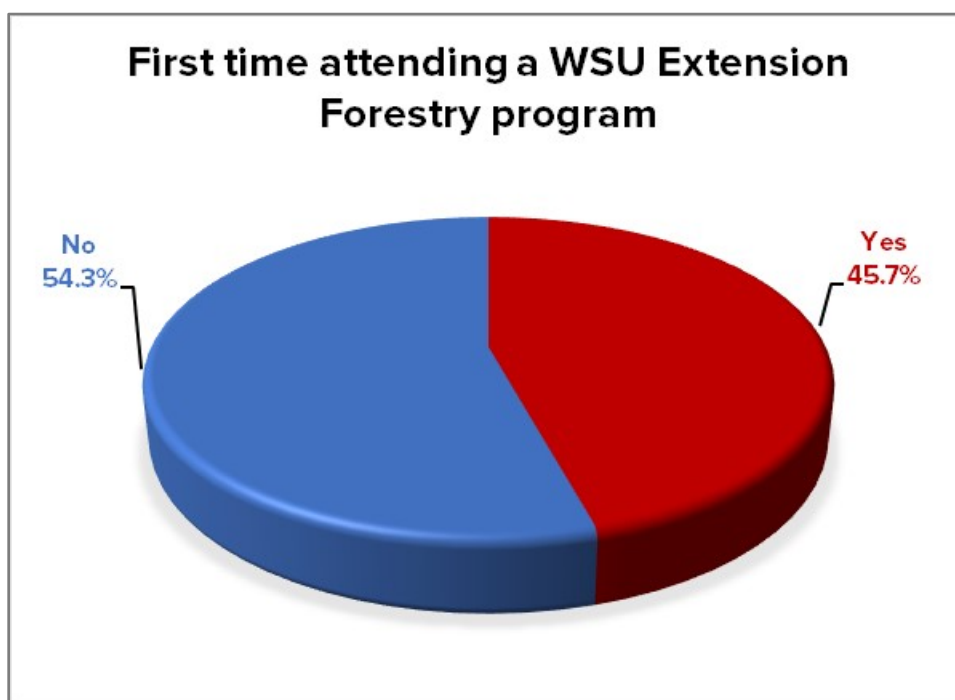
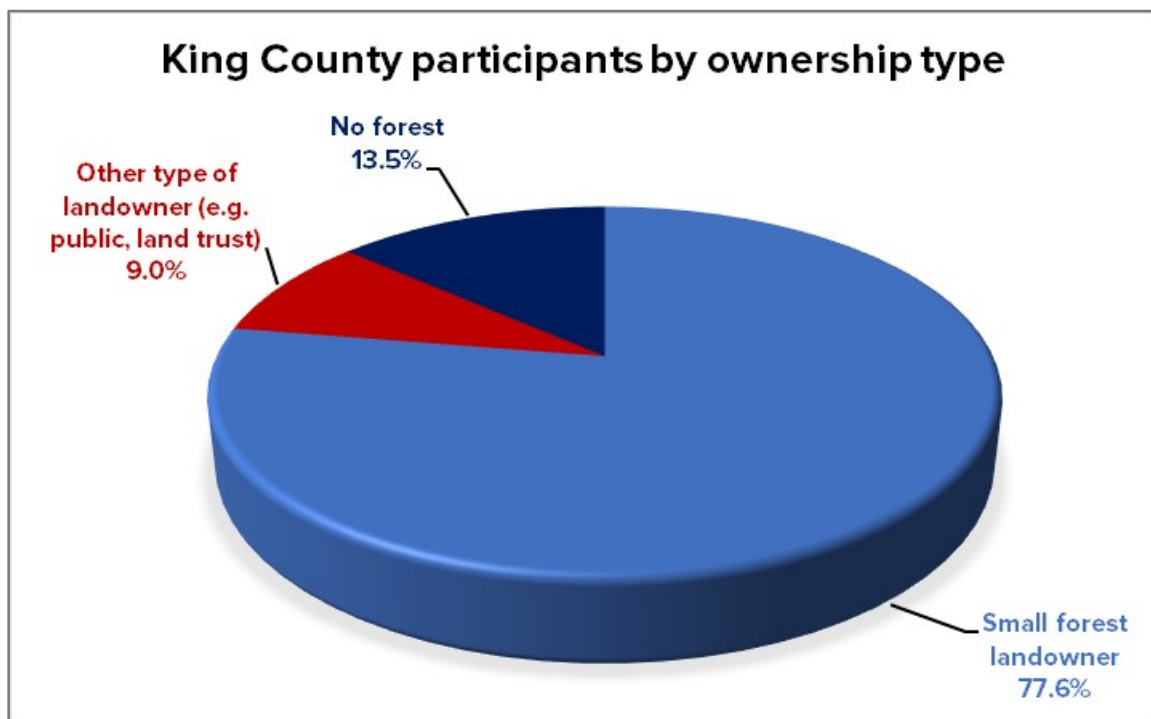
Description: Your forest's understory is a vital element of its resiliency, health, and diversity. Come learn what your understory should look like, how you can maintain it, and the common weeds that get in the way.

Instructor: Skye Pelliccia, Noxious Weed Control Specialist, King County Noxious Weed Control Program

King County participation

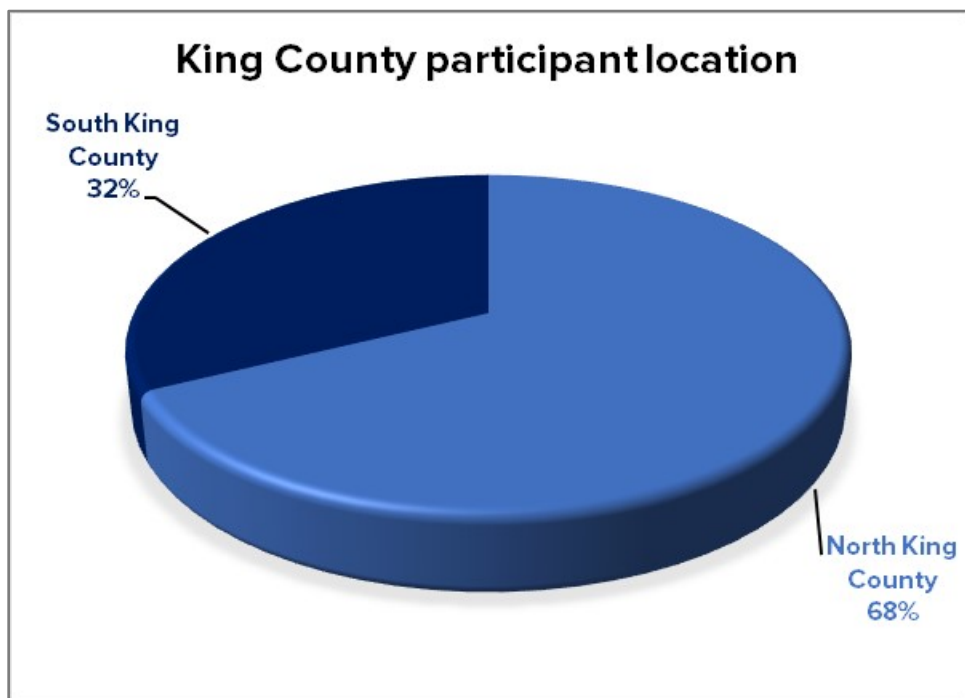
Participant numbers

For the 12 webinars, there were 884 registrations for people who reside and/or own property in King County. These registrations represented 223 unique individuals, as most participants registered for multiple webinars. 77.6% of participants were small forest landowners representing 2,469 acres of forest in King County. 9% of participants were managers of other types of forestland, such as public and land trust lands, representing 90,730 acres of forest in King County. A total of 93,199 acres of King County forest were represented by program participants. The remaining 13.5% of attendees were interested members of the public. For almost half of the attendees, this was their first WSU Extension Forestry program.



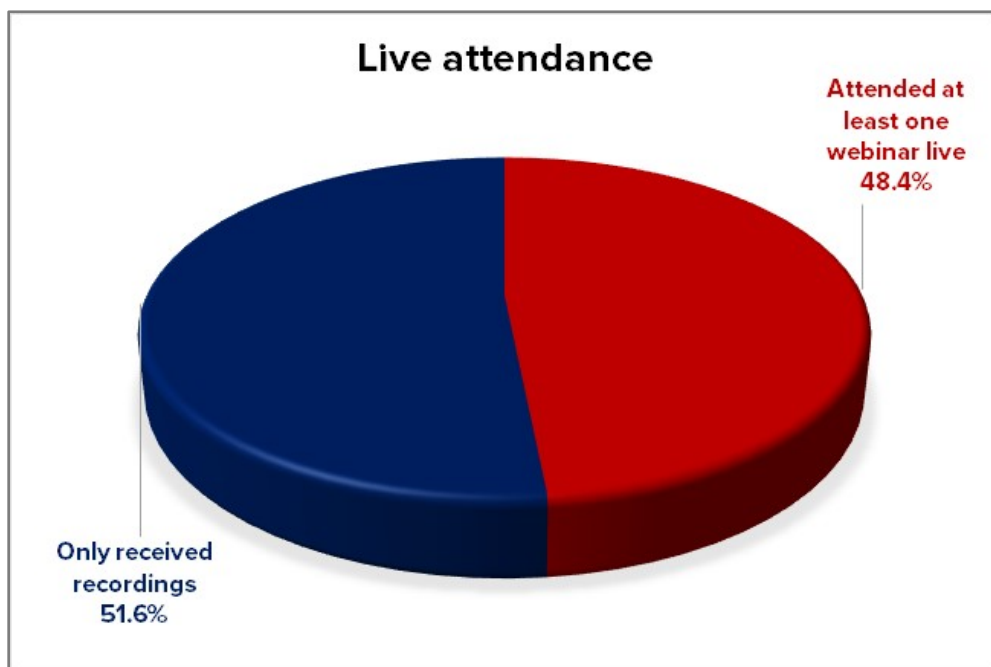
Participant locations

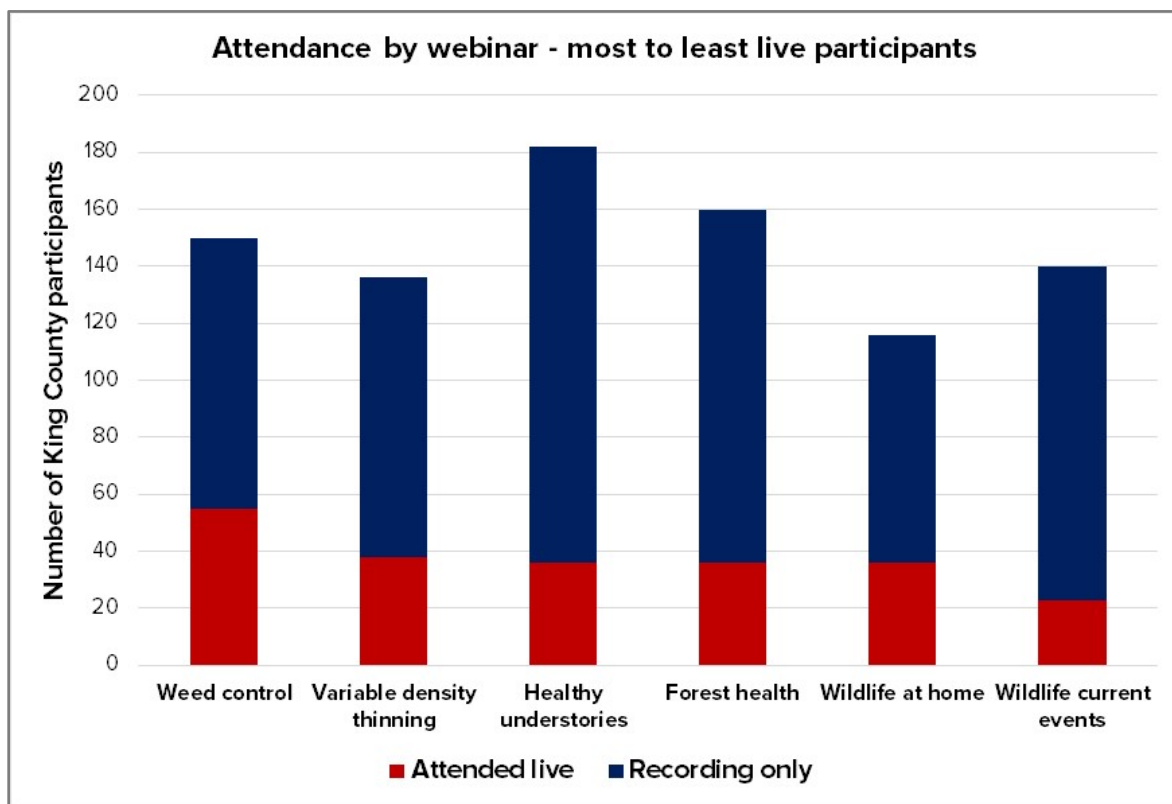
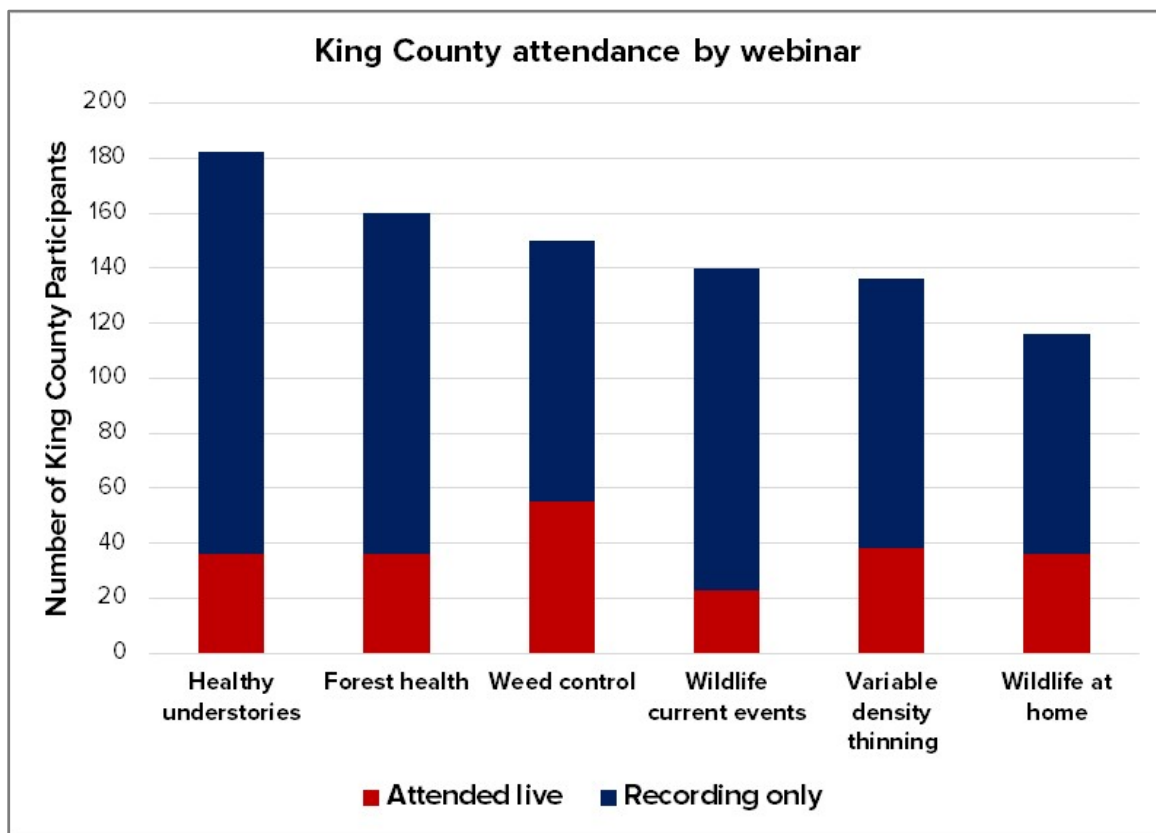
68% of participants were from north King County (north of I90) and 32% were from south King County or Vashon. One of the reasons for the higher number of north King County participants is that these include many people who reside in Seattle and own forestland elsewhere in the county or the state.



Participation per webinar

Approximately half of the King County participants watched at least one webinar live, with the other half opting to only receive links to the recordings. The healthy forest understories and forest health highlights webinars were the most popular overall for King County participants, with the Bradley weed control method and variable density thinning webinars being the most popular for live attendance.

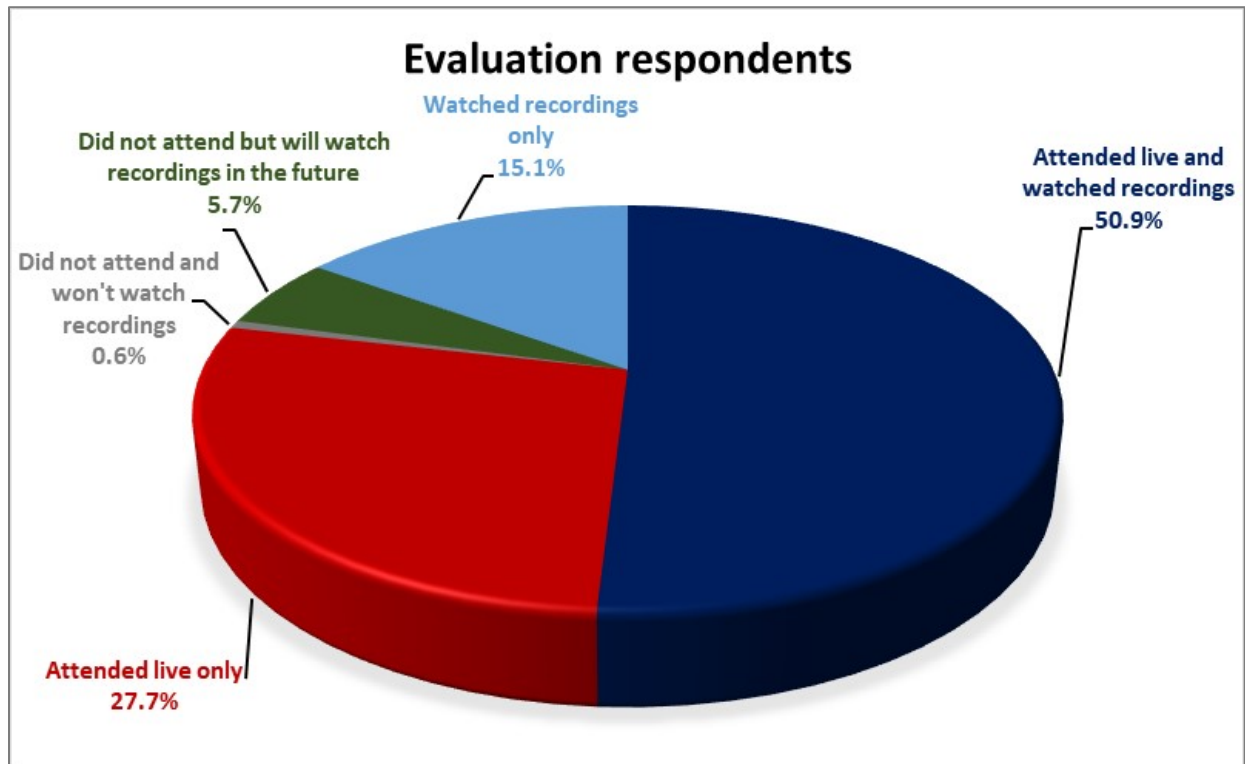




Evaluation results

Evaluation respondents

After the conclusion of the series, we sent invitations to 633 registrants to complete an online evaluation. We received 161 responses (25.4%), including people who had watched live, watched recordings, and who had not watched but planned to watch the recordings. The results below are aggregated for all respondents; they are not county-specific.



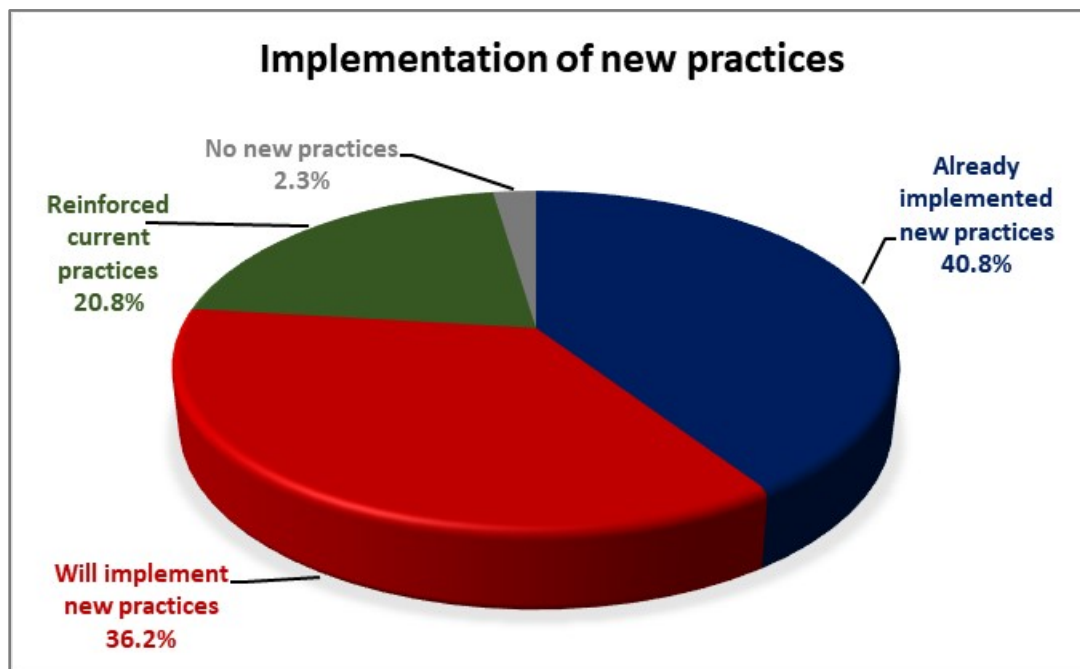
Webinar ratings

96.6% of respondents rated the webinar series as good or excellent. No respondent rated the series as poor. The average rating was 3.6 on a scale of 1 (poor) to 4 (excellent). 98% of respondents who had watched either a live or recorded webinar said the information was useful to them.



Impacts

99.3% of respondents who had watched either a live or recorded webinar said they learned something new. 77% said that they would implement or had already implemented new practices based on what they learned from the webinar series. 20.8% said they would not be doing new practices, but rather the webinars confirmed and reinforced practices they were already implementing.



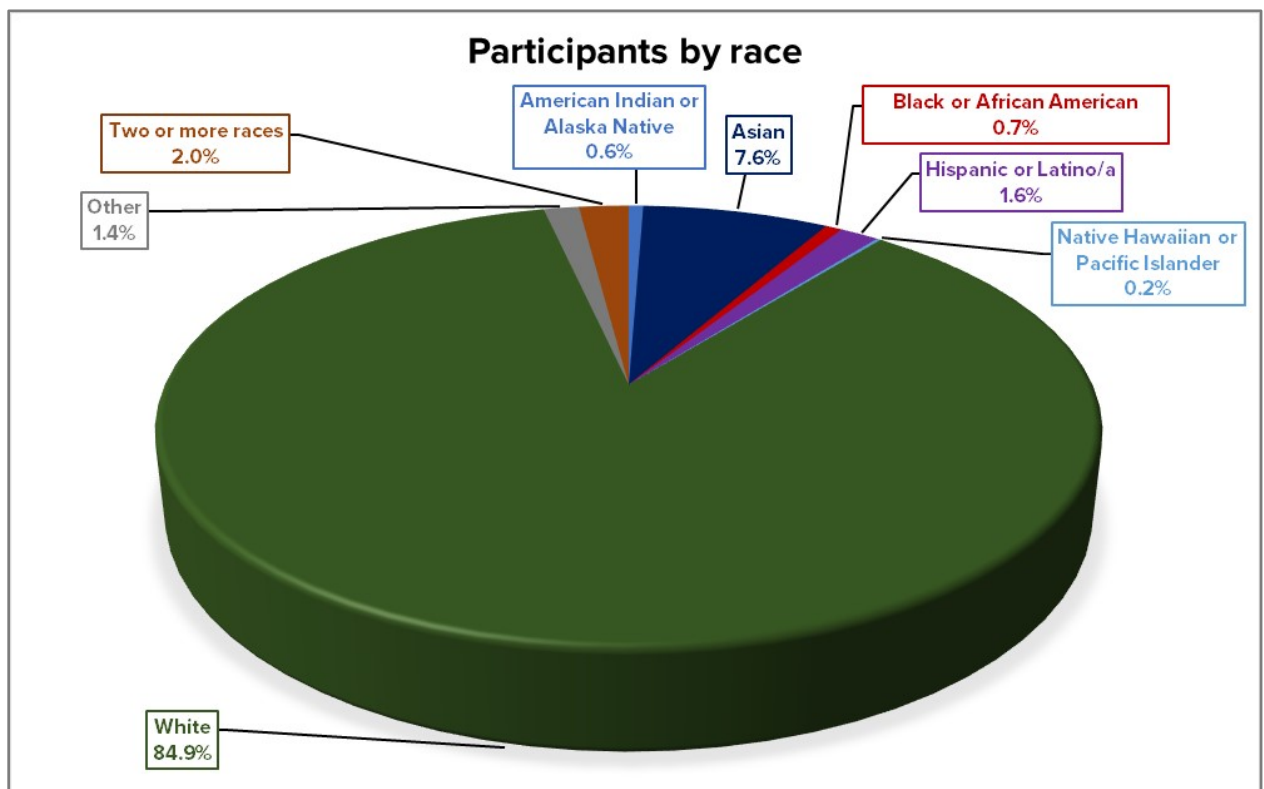
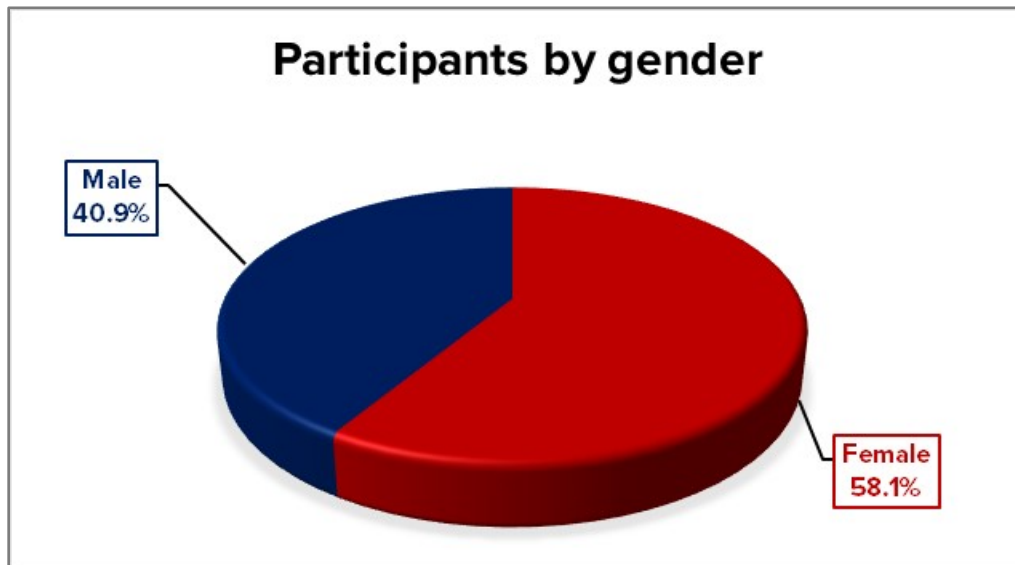
Example participant feedback

- All speakers were well prepared and made the topics easy to understand.
- There was so much good information that I was grateful to be able to watch the videos of some of the sessions, to get the information again!
- I enjoyed the presentation, and it changed the way I think about how to maintain my property.

- Great topics and pace. Presenters were extremely knowledgeable and patiently and completely answered questions. I hope to attend more events like this, so glad they are online!!!
- The webinars are always super informative and practical - very helpful when looking at different aspect of managing my forest.
- Lots of information for viewers of every level of expertise and experience.
- I found them informative, engaging, and very well done.
- The topics and presentations are always excellent, and I always learn something new.
- I learned a lot and changed some of my practices as I restore habitat on my land.
- I found the information very clearly presented, relevant, and easy to apply to my small, forested property.
- I'm always super impressed with the on-time start, the technology capability, the knowledge of the presenters, and the usability of the information. I have learned so much from WSU webinars.
- Presenters all very knowledgeable and delivered professional presentations.
- These were really great. The speakers were excellent and knew their stuff. It even worked well over zoom.
- I liked the ability to access the recordings. The quality of the presentations was excellent.
- Well-paced, with enjoyable and relevant anecdotes. Offered new information and built on what I already knew. Looking forward to using what we learned on our timber farm and sanctuary!
- The knowledge level of the presenters and ability to communicate to a varied audience was very high.
- I looked forward to viewing them each week, good idea showing at noon and evening. I remember them being the perfect length for a lunch break.
- Not only were the webinars exceptionally helpful, they were also incredibly entertaining!
- Excellent information presented in a clear and organized format.
- Very practical information. Info was clear and understandable.
- I feel I was enlightened in some way with all of the webinars.
- I have new respect for the problems private foresters face in both keeping a stand healthy and sustainable while producing saleable trees for the wood products industry at a profit.
- Good presentation. Got me interested in wanting to watch the webinars I missed to learn more of forest management and our involvement.
- SO glad they are happening, much more accessible to me than in-person stuff. Connects me with the forest we tend.
- Excellent series....please continue. It provides access for people who cannot afford to or cannot physically attend in-person sessions.
- Excellent information shared by experts in the respective fields.
- Registration instructions were clear and easy to follow. I appreciated the opportunity to learn about a topic of interest to me in a safe way during the pandemic. The quality of the webinar I attended was excellent.

Participant demographics

The following demographic data is aggregated for all registrants; it is not county-specific. The majority of participants were white females.



Acknowledgements

This program was made possible in part by funding support from Washington State University, Island County, King County, King Conservation District, San Juan County, Skagit County, and Snohomish Conservation District.



WASHINGTON STATE UNIVERSITY
EXTENSION

**2021 King County Forest Stewardship Extension
Education Report**

Attachment C:

New WSU Extension Forestry Publications

SEASONAL FOLIAGE DISCOLORATION AND LOSS IN PACIFIC NORTHWEST EVERGREEN CONIFER TREES



Introduction

A hallmark of fall is leaf color change and drop, which is a phenomenon predominantly associated with deciduous broadleaf trees. However, some foliage on evergreen conifers also turns shades of yellow and orange in the fall and is subsequently shed. This is particularly noticeable on western redcedar (*Thuja plicata*), where splotches of bright orange are highly visible and can cause alarm for homeowners and small forest landowners because it is mistaken for a forest or tree health issue. It is actually a normal, annual function that does not mean something is wrong with the tree. This publication explores the different foliage retention strategies of trees, the phenomenon of seasonal foliage loss on evergreen conifers and how it differs from deciduous trees, and other seasonal color variations in Pacific Northwest (PNW) conifers that may look unhealthy but are generally harmless.

Background

Conifers vs. Broadleaf Trees

Trees are divided into two key types: conifers and broadleaf trees. Conifer means cone-bearing. Native Pacific Northwest (PNW) conifer trees are either in the pine (Pinaceae), yew (Taxaceae), or cypress (Cupressaceae) family. Trees in the pine and yew families have needle-like leaves and include trees like Douglas-fir (*Pseudotsuga menziesii*), western hemlock (*Tsuga heterophylla*), lodgepole pine (*Pinus contorta*), and Pacific yew (*Taxus brevifolia*), while trees in the cypress family usually have awl- or scale-like leaves, such as Rocky Mountain juniper (*Juniperus scopulorum*) and western redcedar. Broadleaf trees have wider, flatter leaves. Native PNW broadleaf trees come from a variety of families and include trees like bigleaf maple (*Acer macrophyllum*), red alder (*Alnus rubra*), and black cottonwood (*Populus trichocarpa*).

Evergreen trees have leaves year-round, whereas deciduous trees spend part of the year without leaves due to seasonally unfavorable growing conditions (Kikuzawa 1991). The term *conifer* is often used synonymously with the term *evergreen*, as most conifers keep their foliage year-round. Similarly, the term *broadleaf* is often synonymous with *deciduous*, as most broadleaf trees shed all their foliage in the fall. These characterizations do not always hold true, though. For instance, larches (*Larix* spp.) are deciduous conifers and Pacific madrone (*Arbutus menziesii*) is an evergreen broadleaf tree. Even “conifer” can seem like a misnomer sometimes, as yews and junipers have modified cones that are fleshy, berry-like structures. Other terms include *angiosperms* (“seeds in vessels”), describing broadleaf trees, since their seeds develop in an ovary (fruit), and *gymnosperms* (“naked seeds”), describing conifers, since their seeds do not develop in an ovary.

Leaf Habit

Leaf habit refers to whether a tree is evergreen or deciduous. There are trade-offs between evergreen and deciduous foliage. The resources a tree needs to construct foliage is roughly the same for the two foliage types per unit of mass (Villar et al. 2006; Villar and Merino 2001; Wright et al. 2004). Evergreen trees use their foliage for multiple years, but making the foliage durable enough to last multiple years comes at a cost of lower photosynthetic capacity (i.e., productivity) such that the tree needs multiple years to recoup the resource investment. Deciduous trees only use their leaves for one growing season, but the leaves are highly productive such that the tree only needs one growing season to recoup its resource investment (Givnish 2002; Kikuzawa 1995; Wright et al. 2004).

Both evergreen and deciduous strategies are effective in many environments, and both types of trees successfully grow together in many ecosystems (Kikuzawa and Lechowicz 2011; van Ommen Kloeke et al. 2012; Wright et al. 2004). Evergreen trees have lower productivity rates than deciduous trees, but they can be productive for more of the year, as they are able to



WASHINGTON STATE UNIVERSITY
EXTENSION

photosynthesize later into the fall and earlier in the spring when deciduous trees are not leafed out (Givnish 2002; Stephenson 1990). Some evergreens can even photosynthesize during periods in the winter if air and soil temperatures are warm enough (Chabot and Hicks 1982; Sevanto et al. 2006; Schaberg 2000). This extended growing season can give evergreen trees an advantage on low-productivity sites, as the site limitations force deciduous trees to photosynthesize at lower rates than they otherwise could. With both the evergreen and deciduous trees photosynthesizing at relatively low rates (the evergreen trees inherently and the deciduous trees because of site limitations), the evergreen trees have the advantage because they can photosynthesize over a longer period. Evergreen trees also have lower soil nutrient needs, giving them a particular advantage on nutrient-poor sites (Aerts 1995; Stephenson 1990; Givnish 2002).

Evergreen trees also have advantages over deciduous trees when the warm season is also the dry season. In most temperate forests, including the eastern U.S., deciduous trees dominate because summers are wet. The combination of ample warmth and moisture allow deciduous trees to better utilize their seasonal high productivity potential. In the western U.S., where summers are droughty, deciduous trees are at a disadvantage because the time of the year when they are leafed out coincides with low availability of water and nutrients. In this region, the ability of evergreens to photosynthesize in the shoulder seasons of fall and spring when temperatures are above freezing and moisture is available is the key to their success. This is particularly true west of the Cascades where winters are mild, providing evergreens with a long growing season (Givnish 2002; Prentice et al. 1992; Stephenson 1990). PNW conifers, which are evergreen with the exception of larches, enjoy these advantages as well as the advantages of their conical crown shapes that are better able to capture sunlight in the overcast or low sun angle conditions that characterize PNW winters (Waring 1982; Waring and Franklin 1979).

Normal Foliage Loss in Evergreen Conifers

A Seasonal Phenomenon

Just like their deciduous counterparts, evergreen conifers shed foliage in the fall. However, they are only shedding their innermost foliage, which may be several years old. Over time, the photosynthetic productivity of foliage decreases due to shading from newer foliage, internal wear and tear, pathogen and insect damage, and dirt that accumulates on the surface. Abscission of older foliage occurs when either more resources are used by the tree to maintain it than the tree recoups via photosynthesis or the tree would obtain a net gain in productivity by transferring resources from the older needles to the newer, more productive needles (Kikuzawa and Lechowicz 2011). In other words, trees maximize profit in terms of gains from

continued photosynthesis relative to the cost of leaf maintenance, and they maximize return on investment in how they allocate their existing assets. The “leaf economy” has been compared to the human economy, with trees acting similar to corporations (Villar et al. 2021).

The Curious Case of the Larches—Deciduous Conifers

The most extreme examples of seasonal foliage loss in conifers are the larches, which are deciduous conifers that drop all their needles in the fall. Two larch species are native to the Pacific Northwest: western larch (*Larix occidentalis*) and alpine larch (*Larix lyallii*). Larches inhabit sites at some of the highest elevations and most northern latitudes that trees can grow. These are areas characterized by particularly harsh winter conditions consisting of both low temperatures and low sunlight. The evergreen advantage does not work out nearly as well under these conditions, as there is less shoulder-season opportunity for photosynthesis and even higher energy requirements to construct foliage that can tolerate the more extreme conditions. The larch’s strategy is to be deciduous, producing “cheap,” disposable foliage that is highly productive during the growing season but has to be replaced annually (Figure 1). It is particularly advantageous to be a deciduous conifer in these environments, as the tall, narrow crown that is characteristic of conifers provides the best balance between light-collecting ability and resistance to damage from snow and ice accumulation at high elevations and latitudes, compared to the shorter, broader crowns of broadleaf trees (Gower and Richards 1990).



Figure 1. Larches are deciduous conifers, with all of their needles turning gold and dropping in the fall. Photo: K. Zobrist.

Pacific Madrone—An Evergreen Broadleaf Tree

Pacific madrone (*Arbutus menziesii*) (Figure 2) is one of only two evergreen broadleaf trees native to Washington, and by far the more common one. The other species is golden chinkapin (*Chrysopsis chrysophylla*), which is rare in Washington, only occurring in a couple of small, isolated populations (Zobrist 2014). Madrones keep their leaves for one and a quarter year, with the prior year's leaves falling in June after the new year's leaves are fully grown (Reeves 2007).



Figure 2. Pacific madrone is an evergreen broadleaf tree, keeping its leaves for one and a quarter year. Photo: K. Zobrist.

During abscission, foliage turns color and falls off the tree, similar to what happens to the foliage on deciduous trees. During this process, while the appearance of the tree may be somewhat alarming, it is part of normal conifer “housekeeping” and growth and will resolve itself with the changing of the seasons. The foliage that has turned orange or brown will be blown out of the tree with the fall winds. If the tree is otherwise healthy, it should look much better by the end of December.

This seasonal phenomenon tends to be highly visible in western redcedar because of the nature of its foliage; it has overlapping scales for foliage instead of individual needles. Thus, instead of small individual needles turning color, entire branchlets turn color. This is referred to as *flagging* (Figure 3). A closer inspection will reveal that the dead foliage is the oldest, innermost foliage (Figure 4).

Seasonal foliage loss can also be particularly noticeable in pines as well. Pines have longer needles than other conifers and a more open architecture that makes the branch interiors more visible (Figure 5). Pines also tend to have a relatively short foliage retention period, as long leaf length is associated with shorter leaf retention periods (Smith et al. 2019). In contrast, seasonal foliage loss is not very noticeable in conifers like

Douglas-fir or western hemlock, as the small needles turning brown on the interior of the branches are not readily visible. The activity is revealed later in the season, though, when streets and roofs become carpeted with dead needles as they blow out of the trees with the fall winds (Figure 6).



Figure 3. Fall flagging in western redcedar. Photo: K. Zobrist.



Figure 4. The foliage being shed is the oldest, innermost foliage. Photo: K. Zobrist.



Figure 5. Seasonal foliage loss is also readily visible in pines. Photo: K. Zobrist.



Figure 6. Douglas-fir needles accumulating on the ground in the fall. Photo: K. Zobrist.

Leaf Longevity

The length of time that a conifer will retain its foliage varies by species but usually ranges from one to ten years (Smith et al.

2019). In western Washington, average leaf retention has historically ranged from three to nine years for coastal Douglas-fir, four to seven years for western hemlock, two to five years for western redcedar, nine to eleven years for Sitka spruce (*Picea sitchensis*), and four to ten years for grand fir (*Abies grandis*) (Pease 1917).

Location, site condition, tree age, foliage position in the tree, and recent weather conditions can influence retention times. In a given species, foliage generated in more resource-limited environments will tend to be retained longer, as a longer payback period is needed for the tree to recoup the cost of its investment (Kikuzawa et al. 2013; Kikuzawa and Lechowicz 2011; van Ommen Kloeke et al. 2012). In other words, a tree growing on a colder, drier, or more nutrient-poor site will keep its foliage longer than a tree of the same species growing on a warmer, moister, or more nutrient-rich site. Foliage retention for a given species can even vary on the same site depending on canopy position, with trees growing in the shadier lower canopy keeping their foliage longer than trees growing in the upper canopy (Kikuzawa and Lechowicz 2011). For instance, Harlow et al. (2005) found that the average foliage retention time for western redcedar in northern Idaho is 6.8 years on upper canopy trees compared to 10.6 years on lower canopy trees.

Drought Impact on Seasonal Foliage Loss

Foliage that is produced in unfavorable conditions, such as a dry or nutrient-poor site or a low-light understory environment, will tend to last longer because it takes the tree longer to recoup its investment. In contrast, foliage that is produced under favorable conditions but suddenly subjected to unfavorable conditions may be shed prematurely (Kikuzawa and Lechowicz 2011). An excessive summer drought can accelerate seasonal foliage loss in evergreen conifers. The annual foliage loss process may begin earlier in the year, and there can also be an unusually high level of seasonal foliage loss that year. For example, a tree that may have normally shed only its seven-year-old foliage may shed its five-, six-, and seven-year-old foliage in an extreme drought year. The accelerated leaf shedding is a drought survival strategy, as less foliage means less overall water demand and water loss. Even though the leaves being shed may not have paid back the tree's investment cost, in a survival situation, it may be better for the tree to cut its losses, reallocate resources from the less-productive older foliage to the more-productive newer foliage, and shed the older foliage prematurely to reduce the tree's water demand (Dallstream and Piper 2021; Munné-Bosch and Alegre 2004; Stephenson et al. 2018).

Drought can also alter the timing of fall color change and leaf drop in deciduous species. The effect seems to differ by tree species, with drought accelerating color change and leaf drop in some species (e.g., Figure 7) but delaying it in others (Dallstream and Piper 2021; Xie et al. 2018). The interaction between drought and other stressors may also dictate how the

timing changes for these events. Xie et al. (2015) found that high drought stress delayed fall color change and leaf drop in New England deciduous trees, but a combination of moderate drought stress and high heat stress accelerated these events instead. Ultimately, changes to the timing of fall color change and leaf drop in deciduous trees in response to drought appear to be tied to multiple variables, including tree species, severity of drought, and the combination of drought with other stressors.

Accelerated seasonal foliage loss in either evergreen or deciduous trees under drought conditions is not necessarily cause for concern or an indication that the tree is dying. Rather, the tree is employing strategies to mitigate the impacts. It does indicate that the drought is causing stress, though, and continued or additional stress could cause more serious problems at some point.



Figure 7. Premature leaf senescence in quaking aspen (*Populus tremuloides*) in Snohomish County, WA, during a record summer drought. Photo: K. Zobrist.

Other Nonserious Seasonal Foliage Discoloration and Loss in Evergreen Conifers

Winter Bronzing

Another seasonal foliage discoloration that occurs in the winter is bronzing on western redcedar, especially on seedlings (Figure 8). Plants produce pigments as protective chemicals. For instance, some plants will produce anthocyanins in response to a variety of different environmental stressors, causing leaves to turn red (Chalker-Scott 2016). In the case of western redcedar in the winter, the tree produces a purple carotenoid pigment called rhodoxanthin in response to a combination of sun exposure and low temperatures. The tree's ability to photosynthesize decreases with decreasing temperatures. In bright sunlight, the foliage is then exposed to more light than it can utilize for photosynthesis, so the tree produces rhodoxanthin to protect the foliage from damage due to the excess light energy beyond that which it can use at the lower rate of photosynthesis. This winter sunscreen gives the sun-exposed foliage a bronze color, while shaded foliage remains green (Han et al. 2004; Solovchenko and Neverov 2017; Weger et al. 1993). This does not result in foliage loss; it is simply a seasonal color change. The bronze foliage will green up again in the spring, as this process reverses when temperatures warm up again.

Winter Desiccation

Winter desiccation, also called parch blight, can cause needle discoloration and loss in the Cascade foothills of western Washington and Oregon when unseasonably warm, dry winds funnel through the mountain passes from east of the Cascades in the winter. The warm, dry wind takes more moisture out of the foliage than the tree can replenish because the ground is frozen, killing the needles. The dead needles may stay green while conditions are still cool and wet, but when the weather turns warmer in the spring, they turn red and begin to shed. The damage typically occurs on the east sides of exposed trees, especially Douglas-firs. The sudden red appearance of damaged areas can be striking in the spring (Figure 9).

A similar phenomenon can occur as a result of rapid temperature fluctuations, such as unseasonably warm daytime temperatures combined with cold nighttime temperatures. This can occur across a narrowly defined elevation band in the mountains due to a temperature inversion. This is called red belt, because the exposed sides of the trees in that elevation band turn red, causing a red stripe across the hillside. Winter desiccation is not usually a serious issue because it does not usually harm the buds. The tree greens up again when the new year's foliage emerges from the intact buds later in the spring and the damaged old needles are shed. The needle loss can cause stress to the tree, though, so it may be desirable to monitor affected trees for signs of stress as the year progresses (Allen et al. 1996; Campbell 1999; Scharpf 1993).

When to Be Concerned

Normal seasonal foliage loss in evergreen conifers follows a recognizable pattern of shedding the oldest, innermost foliage on the tree in the fall while leaving several years' worth of newer foliage intact. There are some insects and disease agents that also tend to affect a tree's oldest foliage, but these agents usually leave evidence of their presence, such as speckling or chewing. For example, Swiss needle cast, a disease of Douglas-fir that can cause all but the current year's needles to turn yellow and fall off, has fruiting bodies that show up as tiny black dots on the undersides of the needles, giving them a sooty appearance (Figure 10). Needle loss happens during the spring and summer as opposed to fall (Goheen and Willhite 2006; Mulvey et al. 2013). Another example is sawflies, which are insects whose larvae feed on older needles of some conifers. They leave telltale partially eaten needles that turn red (Figure 11), and the insects themselves may be present and visible (Goheen and Willhite 2006). These are problems that may have a more serious impact on the tree, and property owners may wish to seek professional advice regarding treatment or control.

Different patterns of foliage loss or decline may also be signs of more serious problems. A dead top (Figure 12) could indicate severe drought stress. Uniform thinning and yellowing of the crown (Figure 13) may indicate root disease. Damage and loss to only the current year's foliage could be caused by a variety of pests, pathogens, or environmental conditions (Allen et al. 1996; Goheen and Willhite 2006). In extreme cases where all the foliage suddenly turns yellow, brown, or red (and it is not a deciduous conifer like a larch), the tree has died (Figure 14).

If there is concern about the condition of a tree, it is beneficial to monitor it for at least a full year (or even several years) to get a better sense of whether there is a sustained pattern of decline or just natural seasonal fluctuations. Conifers tend to look the healthiest in late spring and early summer. It is also helpful to observe various species of trees throughout all seasons over multiple years to get a sense of the trees' natural seasonal rhythms. Having a calibrated understanding of what the normal baseline conditions are for trees allows for better detection of conditions that may be abnormal.



Figure 8. Winter bronzing on a western redcedar seedling. Photo: K. Zobrist.



Figure 9. Douglas-fir in Snohomish County, WA, in spring 2021 after winter parch blight event, prior to spring bud break. Only the needles on the right side of the branch were affected as this was the side of the branch facing east, which was the wind direction. Photo: R. Brooks, WA DNR.



Figure 10. Black fruiting bodies of Swiss needle cast, which give the undersides of Douglas-fir needles a sooty appearance. Photo: K. Zobrist.



Figure 11. Sawfly damage to the older needles of a pine tree, leaving stubs and remnants of partially eaten needles. Photo: S. Katovich, Bugwood.org.

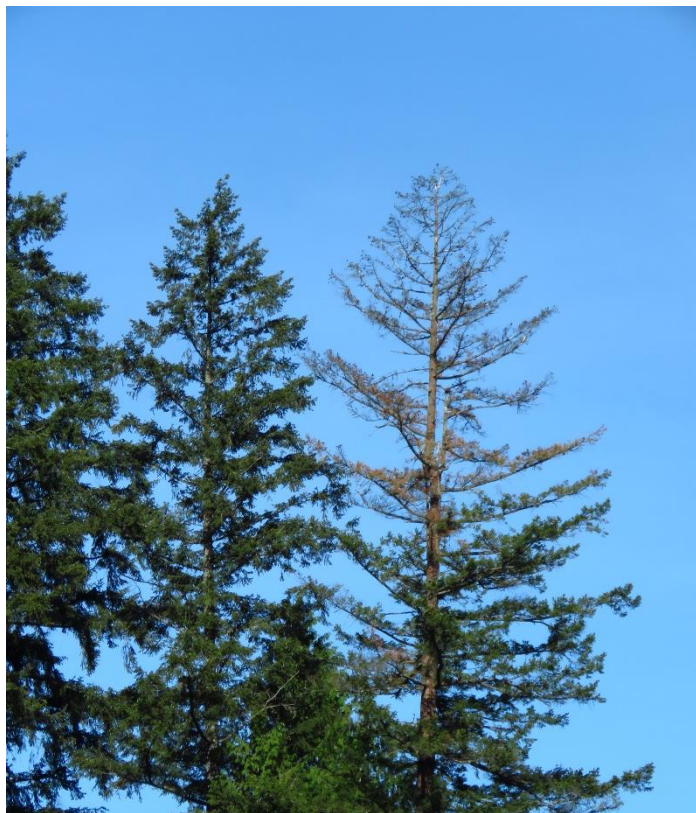


Figure 12. A tree with a dead top that is characteristic of a drought injury. Photo: K. Zobrist.



Figure 13. A uniformly thin and yellowing crown of a Douglas-fir suffering from root disease. Photo: K. Zobrist.

If property owners have concerns about the health of their trees, there are resources available. *Forestry Education and Assistance for Washington Forest and Woodland Property Owners* (Zobrist 2021) lists a variety of public and private sources of assistance for property owners and is free through WSU Extension. In general, a forestry professional is the best source of assistance for tree issues in a forested context, and an arborist is the best source of assistance for tree issues in a home landscape context. If there is an immediate safety concern with a tree that could cause serious injury or property damage, a hazard assessment should be done right away by a certified consulting arborist rather than waiting and monitoring. The PNW chapter of the International Society of Arboriculture (ISA) maintains a directory of certified consulting arborists on their website at <https://pnwisa.org>.



Figure 14. A western redcedar that died due to drought. Photo: K. Zobrist.

References

- Aerts, R. 1995. The Advantages of Being Evergreen. *Tree* 10 (10): 402–407.
- Allen, E., D. Morrison, and G. Wallis. 1996. Common Tree Diseases of British Columbia. Natural Resources Canada Canadian Forest Service, Victoria, BC.
- Campbell, A. 1999. Abiotic Injury to Forest Trees in Oregon. *Oregon State University Extension Publication* EC1501. Oregon State University.
- Chabot, B.F., and D.J. Hicks. 1982. The Ecology of Leaf Life Spans. *Annual Review of Ecology and Systematics* 13: 229–259.
- Chalker-Scott, L. 2016. Why Do Leaves Turn Red? *Washington State University Extension Publication* FS209E. Washington State University.
- Dallstream, C., and F.I. Piper. 2021. Drought Promotes Early Leaf Abscission Regardless of Leaf Habitat but Increases Litter Phosphorus Losses Only in Evergreens. *Australian Journal of Botany* 69: 121–130.
- Givnish, T.J. 2002. Adaptive Significance of Evergreen vs. Deciduous Leaves: Solving the Triple Paradox. *Silva Fennica* 36 (3): 703–741.
- Goheen, E.M., and E.A. Willhite. 2006. Field Guide to Common Diseases and Insect Pests of Oregon and Washington Conifers. R6-NR-FID-PR-01-06. USDA Forest Service, Pacific Northwest Region.
- Gower, S.T., and J.H. Richards. 1990. Larches: Deciduous Conifers in an Evergreen World. *BioScience* 40 (11): 818–826.
- Han, Q., S. Katahata, Y. Kakubari, and Y. Mukai. 2004. Seasonal Changes in the Xanthophyll Cycle and Antioxidants in Sun-Exposed and Shaded Parts of the Crown of *Cryptomeria japonica* in Relation to Rhodoxanthin Accumulation During Cold Acclimation. *Tree Physiology* 24: 609–616.
- Harlow, B.A., R.A. Duursma, and J.D. Marshall. 2005. Leaf Longevity of Western Red Cedar (*Thuja plicata*) Increases with Depth in the Canopy. *Tree Physiology* 25: 557–562.
- Kikuzawa, L. 1991. A Cost-Benefit Analysis of Leaf Habit and Leaf Longevity of Trees and Their Geographical Pattern. *The American Naturalist* 138 (5): 1250–1263.
- Kikuzawa, K. 1995. The Basis for Variation in Leaf Longevity of Plants. *Vegetation* 121: 89–100.
- Kikuzawa, K., and M.J. Lechowicz. 2011. *Ecology of Leaf Longevity*. Tokyo: Springer.

- Kikuzawa, K., Y. Onoda, I.J. Wright, and P.B. Reich. 2013. Mechanisms Underlying Global Temperature-Related Patterns in Leaf Longevity. *Global Ecology and Biogeography* 22: 982–993.
- Mulvey, R.L., D.C. Shaw, G.M. Filip, and G.A. Chastagner. 2013. Swiss Needle Cast. Forest Insect & Disease Leaflet 181. USDA Forest Service, Pacific Northwest Region, Portland, OR.
- Munné-Bosch, S., and L. Alegre. 2004. Die and Let Live: Leaf Senescence Contributes to Plant Survival under Drought Stress. *Functional Plant Biology* 31: 203–216.
- Pease, V.A. 1917. Duration of Leaves in Evergreens. *American Journal of Botany* 4: 145–160.
- Prentice, I.C., W. Cramer, S.P. Harrison, R. Leemans, R.A. Monserud, and A.M. Solomon. 1992. A Global Biome Model Based on Plant Physiology and Dominance, Soil Properties and Climate. *Journal of Biogeography* 19: 117–134.
- Reeves, S.L. 2007. [Arbutus menziesii](#). In *Fire Effects Information System*, online. USDA Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory.
- Schaberg, P.G. 2000. Winter Photosynthesis in Red Spruce (*Picea rubens* Sarg.): Limitations, Potential Benefits, and Risks. *Arctic, Antarctic, and Alpine Research* 32 (4): 375–380.
- Scharpf, R.F. 1993. Diseases of Pacific Coast Conifers. Agriculture Handbook 521. Albany: USDA Forest Service Pacific Southwest Research Station.
- Sevanto, S., T. Suni, J. Pumpanen, T. Grönholm, P. Kolari, E. Nikinmaa, P. Hari, and T. Vesala. 2006. Wintertime Photosynthesis and Water Uptake in a Boreal Forest. *Tree Physiology* 26: 749–757.
- Smith, L., R.B. Primack, L. Zipf, S. Pardo, A.S. Gallinat, and Z.A. Panchen. 2019. Leaf Longevity in Temperate Evergreen Species Is Related to Phylogeny and Leaf Size. *Oecologia* 191: 483–491.
- Solovchenko, A., and K. Neverov. 2017. Carotenogenic Response in Photosynthetic Organisms: A Colorful Story. *Photosynthesis Research* 133: 31–47.
- Stephenson, N.L. 1990. Climatic Control of Vegetation Distribution: The Role of the Water Balance. *The American Naturalist* 135 (5): 649–670.
- Stephenson, N.L., A.J. Das, N.J. Ampersee, K.G. Cahill, A.C. Caprio, J.E. Sanders, and A.P. Williams. 2018. Patterns and Correlates of Giant Sequoia Foliage Dieback During California's 2012–2016 Hotter Drought. *Forest Ecology and Management* 419–420: 268–278.
- van Ommen Kloeke, A.E.E., J.C. Douma, J.C. Ordoñez, P.B. Reich, and P.M. van Bodegom. 2012. Global Quantification of Contrasting Leaf Life Span Strategies for Deciduous and Evergreen Species in Response to Environmental Conditions. *Global Ecology and Biogeography* 21: 224–235.
- Villar, R., and J. Merino. 2001. Comparison of Leaf Construction Costs in Woody Species with Differing Leaf Life-Spans in Contrasting Ecosystems. *New Phytologist* 151: 213–226.
- Villar, R., M. Olmo, P. Atienza, A.J. Garzón, I.J. Wright, H. Poorter, and L.A. Hierro. 2021. Applying the Economic Concept of Profitability to Leaves. *Scientific Reports* 11 (1): 49.
- Villar, R., J.R. Robleto, Y. De Jong, and H. Poorter. 2006. Differences in Construction Costs and Chemical Composition between Deciduous and Evergreen Woody Species Are Small as Compared to Differences among Families. *Plant, Cell and Environment* 29: 1629–1643.
- Waring, R.H. 1982. Land of the Giant Conifers. *Natural History* 91 (10): 54–63.
- Waring, R.H., and J.F. Franklin. 1979. Evergreen Coniferous Forests of the Pacific Northwest. *Science* 204: 1380–1386.
- Weger, H.G., S.N. Silim, and R.D. Guy. 1993. Photosynthetic Acclimation to Low Temperatures by Western Red Cedar Seedlings. *Plant, Cell and Environment* 16: 711–717.
- Wright, I.J., P.B. Reich, M. Westoby, D.D. Ackerly, Z. Baruch, F. Bongers, J. Cavender-Bares, et al. 2004. The Worldwide Leaf Economics Spectrum. *Nature* 428: 821–827.
- Xie, Y., X. Wang, and J.A. Silander Jr. 2015 Deciduous Forest Response to Temperature, Precipitation, and Drought Imply Complex Climate Change Impacts. *Proceedings of the National Academy of Sciences* 112 (44): 13585–13590.
- Xie, Y., X. Wang, A.M. Wilson, and J.A. Silander Jr. 2018. Predicting Autumn Phenology: How Deciduous Trees Respond to Weather Stressors. *Agricultural and Forest Meteorology* 250–251: 127–137.
- Zobrist, K.W. 2014. *Native Trees of Western Washington*. WSU Press, Pullman, WA.
- Zobrist, K.W. 2021. [Forestry Education and Assistance for Washington Forest and Woodland Property Owners](#). Washington State University Extension Publication FS043E. Washington State University.

By
Kevin W. Zobrist, Professor, WSU Extension Forestry



FS056E



WASHINGTON STATE UNIVERSITY
EXTENSION

Copyright © Washington State University

WSU Extension publications contain material written and produced for public distribution. Alternate formats of our educational materials are available upon request for persons with disabilities. Please contact Washington State University Extension for more information.

Issued by Washington State University Extension and the US Department of Agriculture in furtherance of the Acts of May 8 and June 30, 1914. Extension programs and policies are consistent with federal and state laws and regulations on nondiscrimination regarding race, sex, religion, age, color, creed, and national or ethnic origin; physical, mental, or sensory disability; marital status or sexual orientation; and status as a Vietnam-era or disabled veteran. Evidence of noncompliance may be reported through your local WSU Extension office. Trade names have been used to simplify information; no endorsement is intended. Published January 2022.

FORESTRY EDUCATION AND ASSISTANCE FOR WASHINGTON FOREST AND WOODLAND PROPERTY OWNERS



Introduction

Forestry education and assistance for forest and woodland property owners in Washington is available from a variety of sources, including public agencies, private consultants, and fellow landowners. Available resources include publications, videos, workshops, online classes, technical advice, and financial assistance. Whatever your situation, there is likely a resource, organization, or individual that can help you meet your goals for your property.

Quick Reference Guide— Where to Go For:

General Forestry Information

- WSU Extension Forestry staff (p. 6).
- DNR Forest Stewardship Program (p. 6).

Forestry Classes, Workshops, Publications, and Other Educational Resources

- WSU Extension (p. 2).

Site Visits

- DNR stewardship forester or wildlife biologist (p. 6).
- Some local conservation districts (see Appendix 1 for a directory, p. 14).
- USDA-NRCS Service Center or local field office (p. 14).

Financial Assistance Programs

- DNR Small Forest Landowner Office (p. 5).

- DNR Forest Health Assistance Program (eastern Washington) (p. 8).
- USDA-NRCS Service Center or local field office (p. 14).
- Some local conservation districts (see Appendix 1 for a directory, p. 14).

Forest Health

- WSU Extension Forestry Program (p. 2).
- DNR Forest Stewardship Program (p. 6).
- USDA-NRCS Service Center or local field office (p. 14).

Forest Management Plan Preparation

- WSU Extension Coached Planning Program (p. 3).
- Private consulting forester (p. 10).
- DNR Forest Stewardship Program (p. 6).
- USDA-NRCS Service Center or local field office (p. 14).
- Some local conservation districts (see Appendix 1 for a directory, p. 14).

Forest Practices Regulations/Permitting

- DNR Small Forest Landowner Office Regulatory Assistance Forester (p. 6).
- DNR Regional Office (p. 7).

Forest Taxes

- Washington Department of Revenue (p. 10).
- County assessor or planning department (p. 10).

Hazard Tree Assessment

- Certified consulting arborist (p. 10).

Invasive Weed Control

- State or county noxious weed control board (p. 11).

- WSU Extension Forestry staff (p. 6).
- Local conservation district (see Appendix 1 for a directory, p. 14).
- DNR Forest Stewardship Program (p. 6).

Networking with Other Landowners

- Landowner associations (p. 11).
- Women Owning Woodlands (p. 5).
- WSU Extension Forestry events (pp. 3–5).

Timber Sales

- Consulting forester (p. 10).

Wildlife Information

- DNR Stewardship Biologist (p. 6).
- WSU Extension Forestry staff (p. 6).
- Woodland Fish and Wildlife publications (p. 6).

Yard or Landscape Trees in Non-forestry Settings

- Certified consulting arborist (p. 10).
- Local WSU Extension office (ask for horticulture or Master Gardeners—see Appendix 1 for a directory, p. 14).

Washington State University (WSU) Extension

About WSU Extension

The land-grant system was first established by Congress through the Morrill Act, which Abraham Lincoln signed into law in 1862 to provide better higher education opportunities for working classes. The goal of the land-grant system was to make public universities more accessible to the public and to begin offering higher education on more applied subjects such as agricultural, engineering, and military science in addition to classical studies. The federal government granted federal land to each state that the states could then sell and use the funds to establish the land-grant universities. The land-grant system was expanded in 1890 to include historically black colleges and universities, and it was expanded in 1994 to include tribal colleges and universities. Washington has two land-grant institutions. Washington State University (WSU) in Pullman is the 1862 land-grant institution, and Northwest Indian College in Bellingham is the 1994 tribal land-grant institution.

Building on this mission of providing greater public accessibility to university resources, the Smith-Lever Act of 1914 established the nationwide Cooperative Extension Service as part of the

land-grant system. WSU Extension is a three-way partnership between the USDA National Institute of Food and Agriculture (NIFA), Washington State University, and local county governments. WSU Extension has offices in every county in Washington as well as four Research and Extension Centers.

Each local office offers a different mix of local programs that may include agriculture, gardening, community and economic development, health and wellness, nutrition education, youth and families, forestry, and natural resource stewardship. Agriculture, Master Gardeners, Livestock Advisors, Beach Watchers, 4-H, and Forestry are examples of specific programs offered by WSU Extension around the state. The specific Extension programs offered in a county are determined by the county legislative authority (i.e., county council or county commissioners). Some counties in Washington elect to have an Extension Forestry program and some do not.

WSU Extension Forestry Program

The WSU Extension Forestry program (<https://forestry.wsu.edu/>) provides educational workshops, demonstrations, tours, online courses, educational videos, publications, newsletters, and individual consultation on a variety of forestry subjects, including silviculture, wildlife, invasive weeds, forest health, wildfire, climate change, tool and chainsaw safety, and small-scale forestry operations. Extension Forestry personnel are WSU faculty members and administrative professionals who are stationed at local county Extension offices and serve a region of the state. Visit the WSU Extension Forestry website (<https://forestry.wsu.edu/>) to learn about the Extension Forestry staff who serve your county.

An additional role of the Extension Forestry program is to facilitate connections between property owners and other resources. This includes connecting people with technical and financial support offered by our partner agencies such as the Washington Department of Natural Resources (DNR), local conservation districts, and USDA Natural Resources Conservation Service (NRCS). The program also connects people with private sector professionals. The WSU Extension Forestry website maintains up-to-date directories of consulting foresters, silvicultural contractors, and small-scale sawmill operators.

For additional information about WSU Extension resources in your county, please contact your local county Extension office. The WSU Extension website (<https://extension.wsu.edu/>) has information on all WSU County Extension offices and a vast library of Extension publications, which cover topics including forestry, home gardening, agriculture, and more. In addition to all of the resources available on the WSU Extension website, you can also plug into the national Extension network through the Extension Foundation (<http://www.extension.org/>), which has a vast array of resources for foresters, farmers, communities, and homeowners.

Forest Stewardship Coached Planning

Coached Planning is the flagship of the WSU Extension Forestry Program. Coached Planning courses are offered both in person at various locations around the state and online. These courses typically include one evening class per week for seven to nine weeks, plus a Saturday field trip (Figure 1). The classes are designed to help property owners develop customized management solutions to meet their individual ownership objectives. Participants will identify their property ownership goals and develop a comprehensive forest management plan.

A written management plan may qualify landowners for:

- Recognition as a Washington State Stewardship Forest with a metal sign to display (Figure 2).
- Financial assistance funding.
- Third-party certification of sustainable management practices by the Forest Stewardship Council (FSC) or the American Tree Farm System (ATFS) (see Forest Certification section below).
- A possible reduction in property-tax rates through current-use programs like Designated Forestland, Timberland, or the Public Benefit Rating System (PBRs).

See WSU Extension publication [Your Forest Stewardship Plan](#) (FS060E) for additional information on the benefits of management plans.

See the [Washington State Integrated Forest Management Plan Guidelines and Template](#) for management plan requirements.

The Coached Planning courses are designed for those with a few wooded acres as well as those with larger forested tracts, whether managing for timber production or simply for enjoyment of wildlife and aesthetics. Resource managers from nonprofits, land trusts, or local parks departments are also encouraged to attend.

Forest Stewardship Coached Planning is a collaborative educational partnership offered by WSU Extension in cooperation with the Washington Department of Natural Resources (DNR) and the U.S. Forest Service, along with other federal, state, and local natural resources agencies. For more information and a list of upcoming classes, please visit <https://forestry.wsu.edu/> or contact your local Extension Forestry staff (<https://forestry.wsu.edu/staff/>).

Forest Owners' Field Days

Each summer, WSU Extension, the DNR, and other agency partners host educational field days for owners of forested or wooded properties. These field days offer a hands-on, “out in the woods” educational experience for the whole family. Participants can attend outdoor seminars, forest walks, and demonstrations offered throughout the day on a variety of forestry topics, such as forest health, thinning, pruning, riparian management, wildlife habitat, special forest products, wildfire protection, growing edible mushrooms, chainsaw safety, and more (Figure 3). Sessions are offered every hour at different stations throughout the field day site, and participants get to

choose which session they want to attend for each time slot. With advance notice, mobility assistance can usually be available.



Figure 1. WSU Extension Forestry professor Kevin Zobrist teaches a participant proper tree planting technique at a Coached Planning field trip. Photo: B. Whyte.

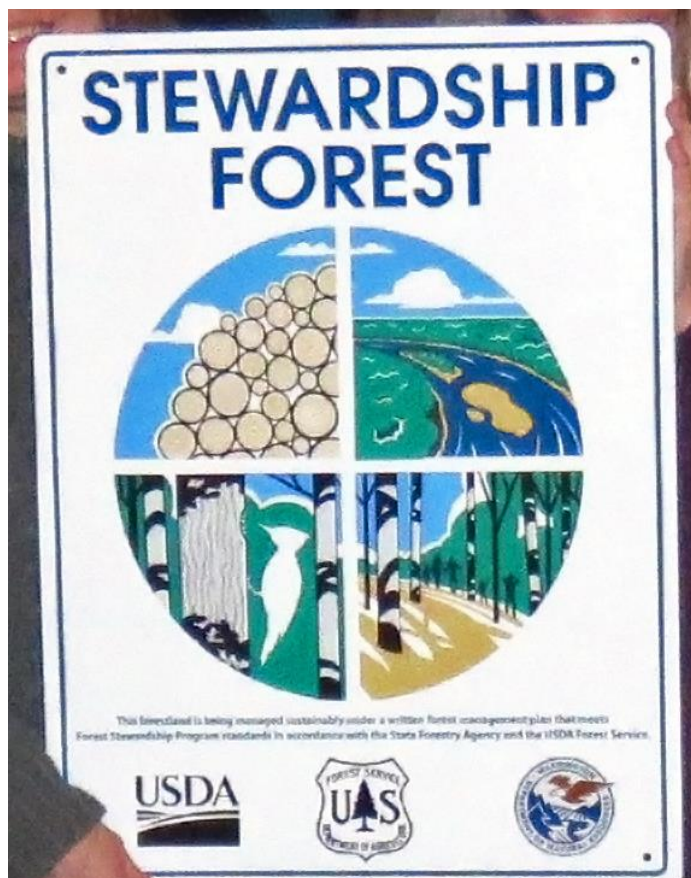


Figure 2. Stewardship Forest sign. Photo: K.W. Zobrist.

Like the Coached Planning courses, the field days provide educational opportunities for participants of all skill levels regardless of property size or ownership objectives. They offer an excellent introduction to forest stewardship, provide

advanced learning opportunities for experienced landowners, or simply allow landowners a chance to “sharpen the saw” to refresh existing skills or be updated on the latest forestry research and developments. The field days also offer valuable opportunities for networking with forestry professionals and fellow property owners.

Typically, at least three Saturday field days are held each year in different locations around the state, with at least one in western Washington and one in eastern Washington. An online version featuring field videos with live interaction with instructors is sometimes offered as well. For information on upcoming field days, contact your local Extension office or visit <https://forestry.wsu.edu/>.



Figure 3. DNR Stewardship biologist Ken Bevis teaches about wildlife at the Forest Owners' Field Day. Photo: K.W. Zobrist.

Forest Owners' Winter School

Winter School is the classroom counterpart to the summer Forest Owners' Field Days, offering a chance to brush up on forestry knowledge during the off season. Similar to the field days, sessions are offered every hour in different classrooms at the Winter School venue, with participants choosing which session they want to attend for each time slot. A variety of topics are offered, including forest health, invasive weed management, wildlife, climate change, growing edible mushrooms, chainsaw maintenance, and more (Figure 4 and Figure 5). Panel discussions and landowner roundtables are often included as well. Winter School is another opportunity for valuable networking with forestry professionals and fellow property owners.

Winter School is usually offered at least twice per year between January and March, with at least one offered in western Washington and one in eastern Washington. A live webinar-based online version is sometimes offered as well. For information on upcoming Winter School programs, contact your local Extension office or visit <https://forestry.wsu.edu/>.

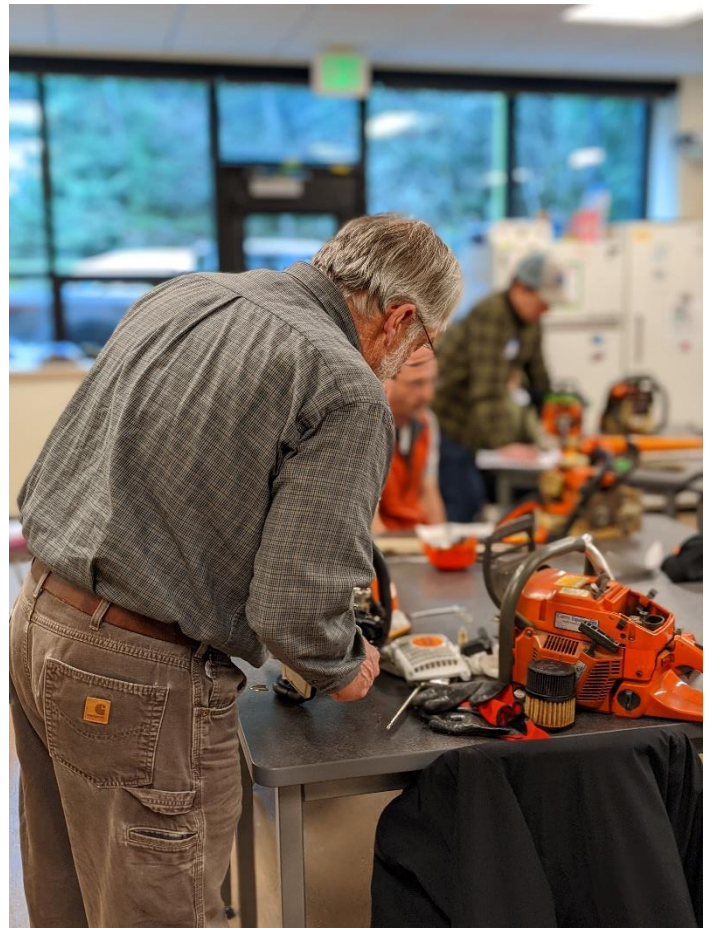


Figure 4. A participant learns about chainsaw maintenance at the Forest Owners' Winter School. Photo: B. Whyte.



Figure 5. WSU Extension Forestry professor Kevin Zobrist teaches participants how to grow edible mushrooms on logs at the Forest Owners' Winter School. Photo: B. Whyte.

Get Connected with WSU Extension Forestry

Newsletters

Stay on top of the latest news, information, upcoming events, and other available resources for forest landowners by subscribing to one or more of these free email newsletters:

Forest Stewardship Notes

This statewide educational newsletter provides news, feature articles, technical advice, and event announcements for forest landowners throughout Washington. The newsletter is published quarterly by WSU Extension Forestry and the Washington DNR Small Forest Landowner Office (SFLO). To view current and past issues, visit <https://foreststewardshipnotes.wordpress.com/>. On that page, click on “Get email alerts about new posts” to subscribe to the newsletter.

Northwest Forest Stewards Email List

This daily electronic mailing list provides news about forest landowner programs and events occurring around Washington State. This email announcement list is managed by WSU Extension Forestry and conveys information by all landowner assistance agencies and organizations. To subscribe, contact Andy Perleberg at andyp@wsu.edu.

Northeast Region Extension Forestry Email List

This electronic mailing list provides periodic information and events of specific interest to forest landowners in northeast Washington. To subscribe, visit <https://forestry.wsu.edu/northeast-email-subscription/>.

Puget Sound Extension Forestry E-Newsletter

Winner of a national gold award for Extension newsletters, this newsletter features news, information, events, and resources of interest to forest and woodland owners. This newsletter is primarily focused on the Puget Sound area. To subscribe or view past issues, visit <https://forestry.wsu.edu/nps/newsletter/>.

Southwest Washington Extension Forestry Email List

This electronic mailing list provides periodic information and events of specific interest to forest landowners in the southwest Washington area. To subscribe, visit <http://lists.cahnr.wsu.edu/cgi-bin/dada/mail.cgi/list/swwalandowners/>.

Social Media

- WSU Eastern Washington Extension Forestry Facebook Page: <https://www.facebook.com/easternwashington.forestry>.
- WSU Extension Forestry Eastern Washington (@WSUExtForestEWA) Twitter Feed: <https://twitter.com/WSUExtForestEWA>.
- WSU Northeast Washington Extension Forestry Facebook Page: <https://www.facebook.com/wsuforestryNE>.
- WSU Puget Sound Extension Forestry Facebook Page: <https://www.facebook.com/wsuforestry>.
- WSU Puget Sound Extension Forestry (@WSUPugetForest) Twitter Feed: <https://twitter.com/WSUPugetForest>.
- WSU Southwest Washington Extension Forestry Facebook Page: <https://www.facebook.com/WSUForestrySW/>.

Forest Stewardship University

Forest Stewardship University is a suite of online classes available from WSU Extension on a variety of topics, including tree and plant identification, silviculture, forest health, managing noxious weeds, and understanding forest taxes and regulations. These online classes are available on demand at <http://forestry.wsu.edu/>.

Women Owning Woodlands Network (WOWnet)

Woman Owning Woodlands Network (WOWnet) is a network of women who learn, educate, and work together to build female literacy and involvement in forestry, land conservation, and

natural resources. WOWnet is a nationwide program that is dynamic, fun, and informative, and WOWnet strives to bring topical, accessible, and current forestry information to women woodland owners and forest practitioners. WOWnet supports women in forest leadership, woodlands management, and forest stewardship. Through educational resources and personal stories, WOWnet strives to instill a sense of confidence and empowerment in women's abilities to meet the challenges of forest ownership. For more information on the National Women Owning Woodlands Network visit their website: <http://www.womenowningwoodlands.net/>.

WSU Extension facilitates the Western Washington Chapter of WOWnet. The chapter operates primarily through a group email discussion list where list members can ask questions, share stories, and arrange get-togethers. To join the list and to get

information on upcoming events, please visit <http://forestry.wsu.edu/nps/wownet/>. The chapter also has a [Facebook page](#) and a [Facebook group](#).

WSU Extension Forestry Publications

WSU Extension Forestry offers a regularly updated collection of research-based, peer-reviewed publications written specifically for property owners. These informational fact sheets and how-to manuals cover a variety of topics such as forest health, forest management, native trees, wildfire, wildlife, and more. Most of these publications are available as free PDF downloads. Select publications are available in print for a nominal fee.

To browse WSU Extension Forestry and other WSU natural resources publications, visit <https://pubs.extension.wsu.edu/forestry-and-range>. You can also contact WSU Extension Publications at 509-335-2857, 800-723-1763, or ext.pubs@wsu.edu.

Woodland Fish and Wildlife Publications

WSU Extension is part of the Woodland Fish and Wildlife (WFW) Project, a cooperative effort between local, state, and federal agencies, universities, and woodland owner associations in the Pacific Northwest to provide information on improving wildlife habitat. The WFW publications are a series of short, practical, how-to publications written specifically for small woodland owners. The WFW series includes general wildlife habitat publications as well as publications on specific species of interest, including deer, bats, beavers, raptors, reptiles, and more. All WFW publications are available as free PDF downloads at <https://woodlandfishandwildlife.com>.

WSU Extension Forestry Videos

For a variety of how-to demonstrations, webinar recordings, and other educational videos, visit the [WSU Extension Forestry YouTube channel](#).

WSU Extension Forestry Faculty and Staff and Areas Served

Visit <https://forestry.wsu.edu/staff/> to find the current list of WSU Extension Forestry faculty and staff that serve your area and their contact information. If you do not see your county listed in the faculty and staff list, this means no local program is presently established in your county. In this case, contact the county director at your county's WSU Extension office to learn about engaging Extension Forestry.

Washington Department of Natural Resources (DNR)

Forest Stewardship Program

The DNR offers free advisory site visits to property owners with five or more acres of forest as part of their Forest Stewardship Program, which is administered by DNR's Forest Health and Resiliency Division. For these site visits, a DNR stewardship forester can walk the property with the owner to assess the forest conditions, provide general management advice, and assist landowners in writing their own forest management plan at no cost. A stewardship wildlife biologist is also available to provide site visits for property owners who have a special interest in wildlife habitat. Property owners with fewer than five acres of forest can receive advice from the stewardship assistance forester or stewardship biologist via phone or email. To find the stewardship assistance forester or stewardship wildlife biologist serving your area, visit the DNR's Forest Health Assistance for Small Forest Landowners website at <https://www.dnr.wa.gov/cost-share>.

Small Forest Landowner Office (SFLO)

Regulatory Assistance

The SFLO offers financial and regulatory assistance programs to property owners. A Regulation Assistance Forester is available to answer questions about forest practices regulations for timber harvesting, road construction, and other regulated forest practices. The Regulatory Assistance Forester can help property owners understand when a Forest Practices Application is required and how to apply for one.

For more information, contact the Regulation Assistance Forester at 360-902-1029 or visit <https://www.dnr.wa.gov/programs-and-services/forest-practices/small-forest-landowners/technical-assistance-landowners>.

Financial Assistance Programs

Family Forest Fish Passage Program (FFFPP)

This program provides funding for property owners to replace culverts or other stream crossings on forest roads that restrict fish from reaching upstream habitat. The program covers most or all of the cost of the stream crossing replacement. Limited funding is available, and projects are prioritized based on the amount of upstream habitat that would be opened up. Even if a property owner's project is not immediately funded, just having applied for the program and been put on the waiting list exempts the property owner from forest practices rules requiring correction of fish barriers.

For more information, contact the FFFPP Manager at 360-902-1404 or visit <https://www.dnr.wa.gov/node/570>.

Forestry Riparian Easement Program (FREP)

This program provides partial compensation to qualifying landowners for the lost financial value of qualifying timber that forest practices regulations require be left in riparian buffers or other critical areas. Enrolling in this program grants the state a 50-year easement on this timber. Funding is limited and is awarded on a first come, first served basis.

For more information, contact the FREP Manager at 360-902-1427 or visit <https://www.dnr.wa.gov/programs-and-services/forest-practices/small-forest-landowners/forestry-riparian-easement-program>.

Rivers and Habitat Open Space Program

The Rivers and Habitat Open Space Program buys permanent conservation easements from eligible property owners who have critical habitat for state-listed threatened or endangered species or river habitat in an unconfined channel migration zone. Funding is limited and allocated based on the characteristics of the habitat.

For more information, contact the Rivers and Habitat Open Space Program Specialist, at 360-902-1427 or visit <https://www.dnr.wa.gov/programs-and-services/forest-practices/small-forest-landowners/rivers-and-habitat-open-space>.

Newsletter

The SFLO provides an email newsletter, Small Forest Landowner News. For more information visit <https://sflonews.wordpress.com/>.

DNR Regional Offices

DNR General Contact

MS 47000
1111 WASHINGTON ST SE
OLYMPIA, WA 98504
360-902-1000
<http://www.dnr.wa.gov/>

Northeast Region

225 S SILKE RD
COLVILLE, WA 99114-0190
509-684-7474
northeast.region@dnr.wa.gov

Ferry, NE Lincoln, Okanogan, Pend Oreille, Spokane, and Stevens counties.

Northwest Region

919 N TOWNSHIP ST
SEDRO WOOLLEY, WA 98284-9384
360-856-3500
northwest.region@dnr.wa.gov

Island, NE King, San Juan, Skagit, Snohomish, and Whatcom counties.

Olympic Region

411 TILlicum LANE
FORKS, WA 98331-9271
360-374-2800
olympic.region@dnr.wa.gov

Clallam, Jefferson, NW Grays Harbor, and NW Mason counties.

Pacific Cascade Region

601 BOND RD
PO BOX 280
CASTLE ROCK, WA 98611-0280
360-577-2025
pacific-cascade.region@dnr.wa.gov

Clark, Cowlitz, SE Grays Harbor, Lewis, Pacific, Skamania, Thurston, and Wahkiakum counties.

South Puget Sound Region

950 FARMAN AVE N
ENUMCLAW, WA 98022-9282
360-825-1631
southpuget.region@dnr.wa.gov

King, Kitsap, Mason, and Pierce counties.

Southeast Region

713 E BOWERS RD
ELLENSBURG, WA 98926-9301
509-925-8510
southeast.region@dnr.wa.gov

Adams, Asotin, Benton, Chelan, Columbia, Douglas, Franklin, Garfield, Grant, Kittitas, Klickitat, SE Lincoln, SE Skamania, Walla Walla, Whitman, and Yakima counties.

Forest Health

Forest Health Specialists

The DNR has forest entomologists (insect specialists) and pathologists (disease specialists) who monitor forest health problems around the state. These experts are frequent speakers at educational programs for forest landowners. For assistance with a forest health problem, first contact your local DNR Stewardship Forester or WSU Extension Forestry staff for diagnoses and recommendations or for a referral to forest health specialist if necessary.

DNR publishes annual Forest Health Highlights reports on current forest health issues around the state. For more information or to access these reports, visit <https://www.dnr.wa.gov/InsectsAndDisease>.

Forest Health Assistance for Small Forest Landowners (Eastern Washington)

This program provides cost-share and technical assistance to qualifying eastern Washington forest owners to implement treatments to reduce wildfire risk or improve forest health.

For forest landowners with property in Ferry, Lincoln, Okanogan, Pend Oreille, Spokane, or Stevens counties, contact the DNR Northeast Region Office in Colville at 509-684-7474. For forest landowners with property in all other eastern Washington counties, contact the DNR Southeast Region Office in Ellensburg at 509-925-8510. For additional information, visit <https://www.dnr.wa.gov/cost-share>.

Wildfire Prevention

The DNR is responsible for wildfire protection on 12 million acres of private and state forestland. For tips and best practices information on protecting your home and forestland from wildfire, contact your local DNR Stewardship Forester, DNR Landowner Assistance Forester (eastern WA), or WSU Extension Forestry staff. Your local conservation district may also offer information and assistance on wildfire prevention.

To obtain a burn permit or to ask questions about forestry-related burning, contact the DNR regional office that serves your area. To report a wildfire, call the DNR Wildfire Hotline at 800-565-6010. For more information on DNR's wildfire resources,

visit <https://www.dnr.wa.gov/programs-and-services/wildfire-resources>.

Urban and Community Forestry

The DNR Urban and Community Forestry Program provides information and technical and financial assistance to municipalities and other organizations regarding trees in urban environments, such as street trees and trees in municipal parks. The program offers a free email newsletter. For more information, contact Ben Thompson, Urban and Community Forestry Program Manager, at 360-485-8651, or visit <https://www.dnr.wa.gov/urbanforestry>.

DNR Webster Forest Nursery

The DNR Webster Forest Nursery, located south of Olympia, offers tree seedlings for sale to landowners. This nursery grows seedlings for a variety of zones and elevations throughout the state of Washington. Seedling orders are typically accepted at the beginning of September for planting the following spring. The nursery sells out quickly each year, so people interested in purchasing seedlings should place their orders immediately when the nursery begins accepting orders in September. For more information, contact the nursery at 360-902-1234, or visit <https://www.dnr.wa.gov/programs-and-services/forest-resources/webster-forest-nursery>.

USDA Natural Resources Conservation Service

Overview

The Natural Resources Conservation Service (NRCS) is a federal agency within the United States Department of Agriculture (USDA). Formerly known as the Soil Conservation Service, NRCS works to conserve natural resources on private lands by providing technical and financial assistance to farmers, forest owners, and others. To learn more about NRCS programs in Washington, visit <https://www.nrcs.usda.gov/wps/portal/nrcs/site/wa/home/>.

Financial Assistance Programs

NRCS administers a variety of funding programs. These programs provide a type of financial assistance in which the government enters into an agreement with a private landowner to pay a portion of the cost to complete a conservation project on private land. This allows landowners to implement projects that would otherwise be cost prohibitive. A variety of conservation activities could potentially be eligible for financial assistance, such as post-wildfire restoration, pre-wildfire fuels reduction treatments, and forest health improvements. Restoration or maintenance of fish and wildlife habitats or other ecological functions through the use of basic forest practices like pre-

commercial thinning, pruning, tree planting, treating forest slash, and creating or protecting habitat structures may also be eligible.

Financial assistance programs are typically established by Congress as part of federal “Farm Bill” legislation. Historically these programs have been geared to agricultural producers, but there have been increasing opportunities for forest owners. The Environmental Quality Incentives Program (EQIP) is a current example of a cost-share program that offers many opportunities for forest owners.

To find out about financial assistance opportunities, eligibility requirements, and application procedures and deadlines, contact your nearest NRCS office. Conservation districts can also provide information on funding programs since they work closely with the NRCS and are often located in the same building.

Soil Information

NRCS is the premier source for soil information, such as soil type, physical and chemical properties, drainage characteristics, land-use suitability, forest productivity, and much more. Historically this information was published by county in soil survey books. These books are no longer updated, since the information is now made available for free online through the NRCS Web Soil Survey at <https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>.

For assistance in using the Web Soil Survey to get soil information, contact your local NRCS office, DNR Stewardship Forester, or WSU Extension Forestry staff. WSU Extension publication *Forest Soil Data for Your Forest Stewardship Plan* (EM064) provides a step-by-step guide for using the Web Soil Survey to get the most commonly needed forest-specific soil data. This publication is available for free to download at <https://pubs.extension.wsu.edu/forest-soil-data-for-your-forest-stewardship-plan-2>.

National Water and Climate Center

As part of NRCS’s snow telemetry (SNOTEL) data collection, NRCS provides water supply forecasts and climate monitoring through interactive maps and charting tools.

Conservation Districts

Overview

Conservation districts are local, special purpose districts (other examples of special purpose districts include hospital, fire, and school districts). Conservation districts provide technical and financial assistance to encourage conservation on private land. Conservation districts sometimes have local funding opportunities in addition to the broader federal programs available through NRCS.

There are 45 conservation districts in Washington. Most, but not all, conservation districts follow county boundaries. To find your local conservation district, see the directory at the end of this publication. You can also learn more about conservation districts in Washington by going online at <https://wadistricts.org/>.

Conservation District Foresters

Some conservation districts in Washington have staff foresters who are available to provide no-cost technical assistance to property owners, including those with fewer than five acres. These services include site visits and assistance in developing forest management plans.

Native Tree and Plant Sales

Conservation districts typically hold native tree and plant sales each year in late winter or early spring. These sales are excellent sources for tree seedlings and native plants that are appropriate for use in reforestation or restoration projects in local areas. Contact your local conservation district for information on upcoming sales and any preorder requirements. Your local conservation district can also help you select appropriate plant and tree species and stock types for your specific site and project needs.

The Washington Association of Conservation Districts (WACD) has a Plant Materials Center in Bow, Washington (Skagit County), that is another good source for native tree and plant seedlings. For more information, contact the WACD Plant Materials Center at 360-757-1094 or pmcsales@gmx.com, or visit <https://wacdpmc.org/>.

Forest Tax Assistance

Current-Use Taxation

Washington, like many states, allows for what is called current-use taxation (CUT), which means that land can be taxed at its value for forestry use rather than its market value, which may reflect its value for development. Forestland values are set by the Washington Department of Revenue (DOR) and adjusted each year using a formula established by state law. These values are variable and are based on the productivity and accessibility of the land. Under CUT, the assessed value of forestland is typically in the range of \$1–\$200 per acre depending on the quality and accessibility of the property. Switching from standard taxation to CUT can significantly reduce your property taxes on the forested portion of a property.

In Washington, there are two types of forestland classifications for CUT. The Designated Forest Land (DFL) classification is for timber tracts that are five or more forested acres. Open Space Timber (OST) is a similar classification that also requires at least five forested acres. If a residence is on the property, a minimum of one acre is subtracted from eligibility. In other words, a five-acre parcel with a residence would not qualify because it would

only have four eligible acres when the acre is subtracted for the residence.

The two classifications function similarly and offer the same tax reduction, but there are slight differences in the rules, the penalties for withdrawal, and how they are administered by the county. Before 2014, DFL required a minimum of 20 forested acres, making the minimum acreage requirements (20 vs. 5) a primary difference between the programs. A legislative change in 2014 reduced the DFL minimum to five acres, eliminating this difference. As part of this legislative change, counties are given the option of eliminating their OST program and switching all enrolled properties over to DFL. Some counties have made this change while others have not.

For both DFL and OST, state law requires that the primary use of the land be the growth of timber for commercial harvest. Property owners who do not wish to do logging on their property should not enroll in either of these programs. There are financial penalties for later removing land from these classifications (e.g., if the property owner decides to develop the property or decides not to use it for logging). An approved forest management plan is usually an enrollment requirement. A property enrolled in a CUT program can be sold and remain in the program if the buyer signs a continuance which states that they will continue to manage the property per the requirements of the program. If the buyer does not wish to sign a continuance, then the property must be removed from the program before the sale can be recorded, and the seller must pay the removal penalties. Property owners should consider the CUT options carefully and seek professional advice to determine if CUT is right for them.

State law allows counties the option of having a Public Benefit Rating System (PBRs) program, which is part of general open space. Unlike DFL and OST that require timber harvest, PBRs is conservation-based. Property owners are awarded points for voluntary conservation measures above the minimum required by law, and these points add up to tax savings. Similar to DFL and OST, a forest management plan is usually required to enroll, and there are financial penalties for removal. Some counties in Washington have chosen to offer PBRs, while others have not. Also, what qualifies for points differs by county. Some counties offer a wide range of things that are eligible for points while others have very restrictive criteria, such as allowing public access or providing habitat for a threatened or endangered species.

Designated forestland and open space timber are state programs based in state law. The application process and administration of the programs is done at the county level, though. The County Assessor's office handles DFL while the county legislative authority (i.e., county council or commissioners) handles OST and PBRs (if applicable), usually via the county's planning department. To find out what is available in your county, contact your County Assessor's office or county planning department.

Washington Department of Revenue

If you sell timber from your property, you may be liable for the Washington Forest Excise Tax (FET) or the Business and Occupation (B&O) tax, depending on how your sales transaction is handled. The DOR has professional foresters on staff to assist property owners with these state forest-tax issues. For more information, call the DOR Forest Tax Program at 360-534-1324, contact Chris Westwood, Department of Revenue Forester, at chrisw@dor.wa.gov, or visit <https://dor.wa.gov/taxes-rates/other-taxes/forest-tax>.

Federal Income Tax

Federal income tax may be owed on harvested timber revenues. How federal income taxes apply to timber income is complex, subject to tax law changes, and specific to each individual's situation. Consequently, you may wish to seek advice from your tax professional or the Internal Revenue Service (IRS). Another available educational resource is the National Timber Tax website at <https://www.timbertax.org/>. This website is a comprehensive clearinghouse for federal and state tax information specifically for forest landowners.

Private Forestry Assistance

In many cases, you will need to hire a private consultant for assistance, especially when it comes to functions like timber harvesting on your property.

Arborists

A professional arborist can assist you with individual trees, such as trees in your yard, trees in an urban setting, and ornamental trees. Services provided by arborists include hazard tree assessment, individual tree health assessment, tree trimming, and tree removal. There are two different types of arborists. Commercial arborists perform the work such as tree trimming and removal. Consulting arborists provide independent advice and assessment. If you know the service you need, you can go directly to a commercial arborist. If you are not sure what services you need or what condition your trees are in, you may wish to start with a consulting arborist to avoid a conflict of interest (e.g., an arborist that would stand to gain financially by telling you to remove a tree).

Certified arborists are different than "tree services." Arborists who have been certified by the International Society of Arboriculture (ISA) have met professional standards of knowledge and continuing education. The Pacific Northwest Chapter of the ISA maintains a directory of certified arborists at <https://online.flippingbook.com/view/871593/>.

Consulting Foresters and Silvicultural Contractors

Hiring a professional consulting forester is strongly recommended when selling timber. A consulting forester serves as your advocate by negotiating the best price for your timber, facilitating the permit and preparation process, verifying property boundaries, protecting your liability, working with the logger, log trucker, and other contractors, and ensuring that the entire sales process goes smoothly and meets your objectives. Other services provided by consulting foresters include management plan preparation, forest inventory (timber cruising), and timber or forestland appraisal. Some consulting foresters have been certified through the Society of American Foresters. Certified Foresters have met professional standards of knowledge and continuing education.

Silvicultural contractors provide forestry services such as reforestation, vegetation control (herbicide application, hand release, etc.), pre-commercial thinning, and pruning. Some forestry firms offer both consulting forester and silvicultural contractor services.

WSU Extension Forestry maintains an online directory of consulting foresters and silvicultural contractors in Washington that provide services to small forest landowners. The directory is available at <https://forestry.wsu.edu/consultingdirectory/> and can be searched by county and service needed.

Loggers

Working with a skilled and knowledgeable logger is invaluable when cutting trees on your property, whether for wood production, habitat enhancement, or forest health improvement. You may wish to seek assistance from a consulting forester in hiring an experienced and reputable logging company that will best meet your needs.

Small-Scale Sawmills

Small-scale sawmills, which are usually portable, offer custom milling of small quantities of timber. For harvesting timber quantities that are smaller than what is economically feasible to send to a traditional mill, harvesting specialty species like walnut, or directly utilizing timber from your own property, a small-scale sawmill may be a good solution. WSU Extension Forestry maintains an online directory of small-scale sawmills in Washington that offer services to small forest landowners. The directory is available at <https://forestry.wsu.edu/sawmilldirectory/> and can be searched by county and service needed.

Forestry Supply Companies

Forest property owners may need specialized equipment, supplies, and tools that are not available from a typical home improvement store. You may find forestry supplies at your local

saw shop. There are also several online forestry supply companies that offer a large selection of specialized forestry products. This non-exhaustive list of private companies is for educational purposes with no implied endorsement by WSU. These companies include:

- Baileys: 800-322-4539 or <https://www.baileysonline.com/>
- CSP Forestry: 800-592-6940 or <http://cspforestry.com/>
- Forestry Suppliers: 800-647-5368 or <https://www.forestry-suppliers.com/>
- Madsen's Shop and Supply: 800-822-2808 or <http://www.madsensl.com>
- Pacforest Supply Company: 877-736-5995 or <http://pacforest.com/>
- Sheldon Hill Arborist and Forestry Supply: 888-632-8302 or <https://www.shforestrysupplies.com/>
- Terra Tech: 800-321-1037 or <https://terratech.net/>
- Woods Logging and Industrial Supply: 360-577-8030 or <https://woodsindustrialsupply.com/>

Invasive Weed Control

Invasive weeds can be a frustrating problem for property owners. Washington State has noxious weed laws that require property owners to control certain weeds. Most counties in Washington have a noxious weed control board and noxious weed control staff who can provide resources for identifying and controlling invasive forest weeds, including weed lists, publications, and disposal information. There is also a state noxious weed control board. Financial assistance programs through NRCS or local conservation districts may be available for financial assistance with weed control projects. A silvicultural contractor may be needed for large projects.

For more information, visit the Washington State Noxious Weed Control Board website at <https://www.nwcb.wa.gov/> or do an internet search for "[county name] county noxious weed control board" to find your local noxious weed control program.

Other Sources of Assistance

Landowner Associations

Your fellow landowners can be an excellent source of knowledge and practical experience. Landowner associations provide an opportunity to connect with other landowners, share ideas, and explore similar interests. Below are several examples. This non-exhaustive list of private organizations is for educational purposes with no implied endorsement by WSU. Information on each organization was gathered from their websites.

Forest Stewards Guild

An advocacy organization for “ecologically, economically, and socially responsible forestry” that offers education and other programs.

Contact info:

membership@forestguild.org
<https://foreststewardsguild.org/pacific-northwest-region/>

Mt. Adams Resource Stewards

A nonprofit community forest program that owns and operates the Mt. Adams Community Forest and promotes natural resource stewardship, stewardship-based economic and community development, and climate adaptation in the Mt. Adams area.

Contact info:

PO BOX 152
GLENWOOD, WA 98619
509-364-4110
info@mtadamsstewards.org
<https://mtadamsstewards.org/>

National Woodland Owner Association (NWOA)

Provides education and advocacy for small forest landowners at the national level. Membership includes a subscription to *National Woodlands* magazine. NWOA also offers liability insurance policies specifically for small forest landowners.

Contact info:

374 MAPLE AVE E STE 310
VIENNA, VA 22180-4751
703-255-2700
info@nationalwoodlands.com
<https://nationalwoodlands.com/>

Vashon Forest Stewards

A nonprofit community forestry organization on Vashon Island that provides consulting, education, and other services and promotes island-grown wood products.

Contact info:

PO BOX 602
VASHON, WA 98070
206-463-9405
david@vashonforeststewards.org
<http://www.vashonforeststewards.org/>

Washington Farm Forestry Association (WFFA)

WFFA provides networking with other landowners, education, and advocacy for small forest landowners at the state level.

Membership includes a subscription to *Northwest Woodlands* magazine.

Contact info:

PO BOX 1010
CHEHALIS, WA 98532-0130
360-888-7074
info@wafarmforestry.com
<https://www.wafarmforestry.com/>

Northwest Natural Resources Group (NNRG)

NNRG offers education programs and consulting and certification services for small forest landowners. Membership includes discounts on events and services.

Contact info:

2701 1ST AVE STE 240
SEATTLE, WA 98121-1133
206-971-3709
<https://www.nnrg.org/>

Forest Certification

Certification programs are voluntary programs that provide third-party recognition of sustainable forest management. Certification programs have specific forest management standards that must be met. Wood harvested from certified properties may fetch a higher price at the mill. Eligibility requirements include a minimum number of forested acres, a written forest management plan, documentation that forest management meets the required standards, and regular on-site inspections by a representative of the certification program. Certified properties get to display certification signs (Figure 6).



Figure 6. American Tree Farm System (ATFS) and Forest Stewardship Council (FSC) certification signs. Photo: K.W. Zobrist.

American Tree Farm System (ATFS)

ATFS certification is geared toward small forest landowners and is available at no cost. ATFS-certified properties are eligible for the Outstanding Tree Farmer of the Year award. In Washington, ATFS certification is administered by the Washington Tree Farm Program. For more information, contact the Washington

Tree Farm Program at 360-602-1603 or info@watreefarm.org, or visit <https://www.watreefarm.org/>.

Forest Stewardship Council (FSC)

Property owners must pay fees to be FSC certified. In Washington, FSC certification is administered by the Northwest Natural Resources Group (NNRG) through a group certificate, because it is more cost-effective to certify multiple properties as a group and spread the certification fees among group members. For more information, contact NNRG at 206-971-3709 or visit <https://www.nnrg.org/our-services/get-certified/>.

Land Trusts

Land trusts are nonprofit organizations that hold conservation easements. Conservation easements permanently protect a property from development. Property owners who want to see their property maintained as forest in perpetuity can set up a conservation easement by donating the development rights to their local land trust. The easement becomes part of the property's title such that no future owner can develop the property. In some cases, a cash gift is required along with the donation of the development rights so that an endowment can be established to cover the land trust's costs of maintaining and enforcing the easement in perpetuity. For more information, contact your local land trust. A directory of the land trusts in Washington is available from the Washington Association of Land Trusts at <https://walandtrusts.org/about-us/our-land-trusts/>.

Appendix 1

County Directory of WSU Extension Offices, Conservation Districts, and Natural Resources Conservation Service Centers

Adams

WSU Adams County Extension

205 W MAIN
RITZVILLE, WA 99169-1894
509-659-3209
<https://extension.wsu.edu/lincoln-adams/>

Adams Conservation District

118 E MAIN AVE
RITZVILLE, WA 99169-1406
509-659-1553
<http://adamscd.com/>

USDA-NRCS Ritzville Service Center

506 WEBER AVE STE B
RITZVILLE, WA 99169-2118
509-659-1761

Asotin

WSU Asotin County Extension

135 2ND ST RM B107 (physical)
PO BOX 9 (mailing)
ASOTIN, WA 99402-0009
509-243-2009
<https://extension.wsu.edu/asotin/>

Asotin County Conservation District

720 6TH ST STE B
CLARKSTON, WA 99403-2012
509-552-8117
<http://www.asotincd.net/>

USDA-NRCS Clarkston Service Center

720 6TH ST STE B
CLARKSTON, WA 99403-2012
509-552-8116

Benton

WSU Benton County Extension— Kennewick

7102 W OKANOGAN PL STE 102
KENNEWICK, WA 99336-1387
509-735-3551
<https://extension.wsu.edu/benton-franklin/>

WSU Benton County Extension—Prosser

620 MARKET ST
PROSSER, WA 99350-1320
509-786-5609
<https://extension.wsu.edu/benton-franklin/>

Benton Conservation District

10121 W CLEARWATER AVE STE 101
KENNEWICK, WA 99336-3500
509-736-6000
<http://www.bentoncd.org/>

USDA-NRCS Prosser Service Center

415 WINE COUNTRY RD
PROSSER, WA 99350-9555
509-786-1923

Chelan

WSU Chelan County Extension

400 WASHINGTON ST
WENATCHEE, WA 98801-2670
509-667-6540
<https://extension.wsu.edu/chelan-douglas/>

Cascadia Conservation District

14 N MISSION ST
WENATCHEE, WA 98801-2250
509-436-1601
<http://www.cascadiacd.org/>

USDA-NRCS Wenatchee Service Center

215 MELODY LN
WENATCHEE, WA 98801-2990
509-664-1141

Clallam

WSU Clallam County Extension

223 E 4TH ST STE 15
PORT ANGELES, WA 98362-3015
360-417-2279
<https://extension.wsu.edu/clallam/>

Clallam Conservation District

228 W 1ST ST STE H
PORT ANGELES, WA 98362-2640
360-775-3747
<http://clallamcd.org/>

USDA-NRCS Port Angeles Service Center

1601 E FRONT ST STE A
PORT ANGELES, WA 98362-4646
360-452-8994

Clark

WSU Clark County Extension

1919 NE 78TH ST
VANCOUVER, WA 98665-9752
564-397-5733
<https://extension.wsu.edu/clark/>

Clark Conservation District

813 W MAIN ST STE 106
BATTLE GROUND, WA 98604
360-859-4780
<http://www.clarkcd.org/>

USDA-NRCS Vancouver Service Center

500 W 12TH ST STE 135
VANCOUVER, WA 98660-2888
360-883-1987

Columbia

WSU Columbia County Extension

137 E MAIN ST
DAYTON, WA 99328-1350
509-382-4741
<https://extension.wsu.edu/columbia/>

Columbia Conservation District

202 S 2ND ST
DAYTON, WA 99328-1327
509-382-4273

USDA-NRCS Dayton Service Center

531 CAMERON ST
DAYTON, WA 99328-1327
509-382-2421

Cowlitz

WSU Cowlitz County Extension

304 COWLITZ WAY
KELSO, WA 98626
360-577-3014
<https://extension.wsu.edu/cowlitz/>

Cowlitz County Conservation District

2125 8TH AVE
LONGVIEW, WA 98632-4053
360-425-1880
<http://cowlitzcd.wordpress.com/welcome/cowlitz-conservation-district/>

USDA-NRCS Longview Service Center

2125 8TH AVE
LONGVIEW, WA 98632-4053
360-425-1880

Douglas

WSU Douglas County Extension

203 S RAINIER ST (physical)
PO BOX 550 (mailing)
WATERVILLE, WA 98858-0550
509-745-8531
<https://extension.wsu.edu/chelan-douglas/>

Foster Creek Conservation District

203 S RAINIER ST (physical)
PO BOX 398 (mailing)
WATERVILLE, WA 98858-0398
509-888-6372
<http://www.fostercreekcd.org/>

South Douglas Conservation District

206 N CHELAN AVE (physical)
PO BOX 246 (mailing)
WATERVILLE, WA 98858-0246
509-745-9160 or 509-745-8121
<http://www.southdouglascd.org>

USDA-NRCS Waterville Service Center

103 N BAKER ST (physical)
PO BOX 428 (mailing)
WATERVILLE, WA 98858-0428
509-745-8561

Ferry

WSU Ferry County Extension

350 E DELAWARE AVE STOP 9
REPUBLIC, WA 99166-9747
509-775-5225 Ext. 1116
<https://extension.wsu.edu/ferry/>

Ferry Conservation District

84 E DELAWARE AVE (physical)
PO BOX 1045 (mailing)
REPUBLIC, WA 99166-1045
509-775-3473 Ext. 190

USDA-NRCS Republic Service Center

84 E DELAWARE AVE (physical)
PO BOX 315 (mailing)
REPUBLIC, WA 99166-0315
509-775-3473

Franklin

WSU Franklin County Extension

404 W CLARK ST
PASCO, WA 99301-5629
509-545-3511
<https://extension.wsu.edu/benton-franklin/>

Franklin Conservation District

1724 E SUPERIOR ST
PASCO, WA 99301-5392
509-416-0440
<http://www.franklincd.org/>

USDA-NRCS Pasco Service Center

1533 E SPOKANE ST STE B
PASCO, WA 99301-4216
509-545-8546

Garfield

WSU Garfield County Extension

757 MAIN ST (physical)
PO BOX 190 (mailing)
POMEROY, WA 99347-0190
509-843-3701
<https://extension.wsu.edu/garfield/>

Pomeroy Conservation District

910 MAIN ST (physical)
PO BOX 468 (mailing)
POMEROY, WA 99347-0468
509-843-5008
<http://www.pomeroycd.com>

USDA-NRCS Pomeroy Service Center

804 W MAIN ST (physical)
PO BOX 468 (mailing)
POMEROY, WA 99347-0468
509-843-1997

Grant

WSU Grant County Extension

1525 E WHEELER RD
MOSES LAKE, WA 98837-9753
509-754-2011 Ext. 4313
<https://extension.wsu.edu/grant/>

Grant County Conservation District

1107 S JUNIPER DR
MOSES LAKE, WA 98837-2313
509-765-9618
<http://columbiabasincds.org/>

USDA-NRCS Ephrata Service Center

2145 BASIN ST SW STE B
EPHRATA, WA 98823-9451
509-754-2463

Grays Harbor

WSU Grays Harbor County Extension

32 ELMA MCCLEARY RD (physical)
PO BOX 3018 (mailing)
ELMA, WA 98541-3018
<https://extension.wsu.edu/graysharbor/>

Grays Harbor Conservation District

330 PIONEER AVE W STE D
MONTESANO, WA 98563-4412
360-249-8532

<https://graysharborcd.wordpress.com/>

USDA-NRCS Montesano Service Center

330 PIONEER AVE W
MONTESANO, WA 98563-4412
360-249-5900

Island

WSU Extension Island County

406 N MAIN ST
COUPEVILLE, WA 98239-3416
360-639-6060

<https://extension.wsu.edu/island/>

Whidbey Island Conservation District

1 NE 4TH ST (physical)
PO BOX 490 (mailing)
COUPEVILLE, WA 98239-0490
360-678-4708 or 888-678-4922

<https://www.whidbeycd.org/>

Note: Whidbey Island is served by the USDA-NRCS Mount Vernon Service Center (see Skagit County below), and Camano Island is served by the Snohomish Conservation District and the USDA-NRCS Lake Stevens Service Center (see Snohomish County below).

Jefferson

WSU Jefferson County Extension

KIVLEY CENTER
121 OAK BAY RD
PORT HADLOCK, WA 98339-8718
360-379-5610

<https://extension.wsu.edu/jefferson/>

Jefferson County Conservation District

205 W PATISON ST
PORT HADLOCK, WA 98339
360-385-4105

<http://www.jeffersoncd.org/>

Note: Jefferson County is served by the USDA-NRCS Port Angeles Service Center (see Clallam County above).

King

WSU King County Extension

560 NACHES AVE SW STE 130
RENTON, WA 98057-2219
425-738-0111

<https://extension.wsu.edu/king/>

King Conservation District

800 SW 39TH ST STE 150
RENTON, WA 98057-4928
425-282-1900

<http://www.kingcd.org/>

USDA-NRCS Renton Service Center

941 POWELL AVE SW STE 102
RENTON, WA 98057-2992
425-277-5580

Kitsap

WSU Kitsap County Extension

345 6TH ST STE 550
BREMERTON, WA 98337-1874
360-228-7300

<https://extension.wsu.edu/kitsap/>

Kitsap Conservation District

10332 CENTRAL VALLEY RD NE
POULSBORO, WA 98370-8143
360-204-5529

<https://kitsapcd.org/>

USDA-NRCS Bremerton Field Office

500 PACIFIC AVE STE 301
BREMERTON, WA 98337-1904
360-479-5472

Kittitas

WSU Kittitas County Extension

901 E 7TH AVE STE 2
ELLENSBURG, WA 98926-3350
509-962-7507

<https://extension.wsu.edu/kittitas/>

Kittitas County Conservation District

2211 W DOLARWAY RD STE 4
ELLENSBURG, WA 98926-8227
509-925-3352
<https://www.kccd.net/>

USDA-NRCS Ellensburg Service Center

2211 W DOLARWAY RD STE 6
ELLENSBURG, WA 98926-8227
509-925-8585

Klickitat

WSU Klickitat County Extension

228 W MAIN STOP 12
GOLDENDALE, WA 98620-9055
509-773-5817
<https://extension.wsu.edu/klickitat/>

Central and Eastern Klickitat Conservation Districts

1107 S COLUMBUS AVE
GOLDENDALE, WA 98620-9296
509-773-5823 Ext. 5
<http://ckcd.org/>
<http://ekcd.org/>

Note: West Klickitat is served by the Underwood Conservation District (see Skamania County below).

USDA-NRCS Goldendale Service Center

1107 S COLUMBUS AVE
GOLDENDALE, WA 98620-9268
509-773-5822

Lewis

WSU Lewis County Extension

351 NW NORTH ST MS: AES01
CHEHALIS, WA 98532-1900
360-740-1212
<https://extension.wsu.edu/lewis/>

Lewis County Conservation District

2057 SW SALSURY AVE
CHEHALIS, WA 98532
360-996-4560
<https://lewisconservation.wordpress.com/>

USDA-NRCS Chehalis Service Center

1554 BISHOP RD
CHEHALIS, WA 98532-8710
360-748-0083

Lincoln

WSU Extension Lincoln County

303 6TH ST (physical)
PO BOX 399 (mailing)
DAVENPORT, WA 99122-0399
509-725-4171
<https://extension.wsu.edu/lincoln-adams/>

Lincoln County Conservation District

1310 MORGAN ST (physical)
PO BOX 46 (mailing)
DAVENPORT, WA 99122-0046
509-725-4181 Ext. 3
<http://www.lincolncd.com>

USDA-NRCS Davenport Service Center

1310 MORGAN ST
PO BOX 46
DAVENPORT, WA 99122-0046
509-725-4501

Mason

WSU Mason County Extension

303 N 4TH ST
SHELTON, WA 98584-3417
360-427-9670 Ext. 680
<https://extension.wsu.edu/mason/>

Mason Conservation District

450 W BUSINESS PARK RD
SHELTON, WA 98584-1284
360-427-9436
<http://www.masoncd.org/>

Note: Mason County is served by the USDA-NRCS Olympia Service Center and the USDA-NRCS Bremerton Field Office (see Thurston County below and Kitsap County above).

Okanogan

WSU Okanogan County Extension

1234 2ND AVE S
OKANOGAN, WA 98840-9723
509-422-7245
<https://extension.wsu.edu/okanogan/>

Okanogan Conservation District

1251 2ND AVE S STE 102
OKANOGAN, WA 98840-9767
509-422-0855
<http://www.okanogancd.org/>

USDA-NRCS Okanogan Service Center

1251 2ND AVE S STE 101
OKANOGAN, WA 98840-9767
509-442-2750

Pacific

WSU Pacific County Extension

1216 W ROBERT BUSH DR (physical)
PO BOX 88 (mailing)
SOUTH BEND, WA 98586-0088
360-875-9331
<https://extension.wsu.edu/pacific/>

Pacific Conservation District

904 W ROBERT BUSH DR (physical)
PO BOX 336 (mailing)
SOUTH BEND, WA 98586-0336
360-875-6735
<https://pacificcd.wordpress.com/>

Note: Pacific County is served by the USDA-NRCS Olympia Service Center and the USDA-NRCS Chehalis Field Office (see Thurston County below and Lewis County above).

Pend Oreille

WSU Pend Oreille County Extension

227 GARDEN AVE (physical)
PO BOX 5045 (mailing)
NEWPORT, WA 99156-5045
509-447-2401
<https://extension.wsu.edu/pendoreille/>

Pend Oreille Conservation District

121 N WASHINGTON AVE RM 110
PO BOX 465
NEWPORT, WA 99156-0465
509-447-5370
<http://www.pocd.org/>

USDA-NRCS Newport Service Center

100 N WASHINGTON AVE RM 110
PO BOX 280
NEWPORT, WA 99156-9070
509-447-4217

Pierce

WSU Pierce County Extension

3602 PACIFIC AVE STE 200
TACOMA, WA 98418-7920
253-798-7180
<https://extension.wsu.edu/pierce/>

Pierce Conservation District

308 W STEWART AVE (physical)
PO BOX 1057 (mailing)
PUYALLUP, WA 98371-0256
253-845-9770
<http://www.piercecd.org/>

USDA-NRCS Puyallup Service Center

1011 E MAIN STE 106
PUYALLUP, WA 98372-6768
253-845-9272

San Juan

WSU San Juan County Extension

221 WEBER WAY STE LL
FRIDAY HARBOR, WA 98250-9375
360-378-4414
<https://extension.wsu.edu/sanjuan/>

San Juan Islands Conservation District

530 GUARD ST (physical)
PO BOX 1728 (mailing)
FRIDAY HARBOR, WA 98250-1728
360-378-6621 Ext. 0
<http://www.sanjuanislandscd.org/>

Note: San Juan County is served by the USDA-NRCS Mount Vernon Service Center (see Skagit County below).

Skagit

WSU Skagit County Extension

11768 WESTAR LN STE A
BURLINGTON, WA 98233-3672
360-428-4270
<https://extension.wsu.edu/skagit/>

Skagit Conservation District

2021 E COLLEGE WAY STE 203
MOUNT VERNON, WA 98273-2373
360-428-4313
<http://www.skagitcd.org/>

USDA-NRCS Mount Vernon Service Center

2021 E COLLEGE WAY STE 214
MOUNT VERNON, WA 98273-2373
360-428-7684

Skamania

WSU Skamania County Extension

710 SW ROCK CREEK DR (physical)
PO BOX 369 (mailing)
STEVENSON, WA 98648-0369
509-427-3932
<https://extension.wsu.edu/skamania/>

Underwood Conservation District

170 NW LINCOLN ST (physical)
PO BOX 96 (mailing)
WHITE SALMON, WA 98672-0096
509-493-1936
<http://www.ucdwa.org/>

Note: Skamania County is served by the USDA-NRCS Yakima Service Center and the USDA-NRCS Vancouver Service Center (see Yakima County below and Clark County above).

Snohomish

WSU Snohomish County Extension

6705 PUGET PARK DR
SNOHOMISH, WA 98296-4214
425-338-2400
<https://extension.wsu.edu/snohomish/>

Snohomish Conservation District

528 91ST AVE NE STE A
LAKE STEVENS, WA 98258-2538
425-335-5634
<https://snohomishcd.org/>
<https://betterground.org/>

USDA-NRCS Lake Stevens Service Center

528 91ST AVE NE STE B
LAKE STEVENS, WA 98258-2538
425-595-3284

Spokane

WSU Spokane County Extension

222 N HAVANA ST
SPOKANE, WA 99202-4799
509-477-2048
<https://extension.wsu.edu/spokane/>

Spokane County Conservation District

210 N HAVANA ST
SPOKANE, WA 99202-4724
509-535-7274
<http://sccd.org/>

USDA-NRCS Spokane Service Center

8815 E MISSION AVE STE B
SPOKANE VALLEY, WA 99212-2532
509-924-7350

Stevens

WSU Stevens County Extension

986 S MAIN ST STE D
COLVILLE, WA 99114-2513
509-684-2588
<https://extension.wsu.edu/stevens/>

Stevens County Conservation District

232 WILLIAMS LAKE RD
COLVILLE, WA 99114-9638
509-684-7579
<https://stevenscountywa.gov/sccd>

USDA-NRCS Colville Service Center

765 S MAIN ST
COLVILLE, WA 99114-9638
509-685-0858

Thurston

WSU Thurston County Extension

3054 CARPENTER RD SE
BENOSCHEK BUILDING
OLYMPIA, WA 98503-3961
360-867-2151
<https://extension.wsu.edu/thurston/>

Thurston Conservation District

2918 FERGUSON ST SW STE A
TUMWATER, WA 98512-6187
360-754-3588
<http://www.thurstoncd.com/>

USDA-NRCS Olympia Service Center

1835 BLACK LAKE BLVD SW STE E
OLYMPIA, WA 98512-5607
360-704-7740

Wahkiakum

WSU Wahkiakum County Extension

25 RIVER STREET STE E (physical)
PO BOX 278 (mailing)
CATHLAMET, WA 98612-0278
360-795-3278
<https://extension.wsu.edu/wahkiakum/>

Wahkiakum Conservation District

957 STEAMBOAT SLOUGH RD
SKAMOKAWA, WA 98612 (physical)
PO BOX 67 (mailing)
CATHLAMET, WA 98612-0067
360-795-8240
<https://cowlitzcd.wordpress.com/welcome/wahkiakum-conservation-district/>

Note: Wahkiakum County is served by the USDA-NRCS Longview Service Center (see Cowlitz County above).

Walla Walla

WSU Walla Walla County Extension

328 W POPLAR ST
WALLA WALLA, WA 99362-2830
509-524-2685
<https://extension.wsu.edu/wallawalla/>

Walla Walla County Conservation District

325 N 13TH AVE
WALLA WALLA, WA 99362-1700
509-956-3777
<http://www.wwccd.net/>

USDA-NRCS Walla Walla Service Center

325 N 13TH AVE
WALLA WALLA, WA 99362-1700
509-522-6347

Whatcom

WSU Whatcom County Extension

1000 N FOREST ST STE 201
BELLINGHAM, WA 98225-5594
360-778-5800
<https://extension.wsu.edu/whatcom/>

Whatcom Conservation District

6975 HANNEGAN RD
LYNDEN, WA 98264-9019
360-354-2035 Ext. 3
<http://www.whatcomcd.org/>

USDA-NRCS Everson Service Center

914 CITADEL DR STE C
EVERSON, WA 98247-9668
360-354-5658

Whitman

WSU Whitman County Extension

310 N MAIN ST RM 209
COLFAX, WA 99111-1894
509-397-6290
<https://extension.wsu.edu/whitman/>

Palouse Conservation District

1615 NE EASTGATE BLVD STE H
PULLMAN, WA 99163-5348
509-332-4101
<https://www.palousecd.org/>

Palouse Rock Lake Conservation District

3 N PARK ST (physical)
PO BOX 438 (mailing)
SAINT JOHN, WA 99171-0438
509-648-3680 Ext. 100
<http://www.prlcd.org/>

Pine Creek Conservation District

401 S STATE RTE 27
OAKSDALE, WA 99158-5001
509-285-5122

Whitman Conservation District

601 N MAIN ST STE A
COLFAX, WA 99111-2118
509-397-4636 Ext. 120
<http://www.whitmancd.org/>

USDA-NRCS Colfax Service Center

805 S VISTA POINT DR
COLFAX, WA 99111-9565
509-397-4301

Yakima

WSU Yakima County Extension

2403 S 18TH ST STE 100
UNION GAP, WA 98903-1637
509-574-1600
<https://extension.wsu.edu/yakima/>

North Yakima Conservation District

1606 PERRY ST STE C
YAKIMA, WA 98902-5769
509-454-5736
<https://northyakimacd.wordpress.com/>

South Yakima Conservation District

200 CHEYNE RD (physical)
PO BOX 1766 (mailing)
ZILLAH, WA 98953-1766
509-829-9025
<http://www.sycd.us/>

USDA-NRCS Yakima Service Center

1606 PERRY ST
YAKIMA, WA 98902-5795
509-367-8585

USDA-NRCS Zillah Service Center

200 CHEYNE RD
ZILLAH, WA 98953-9764
509-829-3003 Ext. 3

By,
Kevin W. Zobrist, Professor, WSU Extension Forestry



FS043E



Copyright © Washington State University

WSU Extension publications contain material written and produced for public distribution. Alternate formats of our educational materials are available upon request for persons with disabilities. Please contact Washington State University Extension for more information.

Issued by Washington State University Extension and the US Department of Agriculture in furtherance of the Acts of May 8 and June 30, 1914. Extension programs and policies are consistent with federal and state laws and regulations on nondiscrimination regarding race, sex, religion, age, color, creed, and national or ethnic origin; physical, mental, or sensory disability; marital status or sexual orientation; and status as a Vietnam-era or disabled veteran. Evidence of noncompliance may be reported through your local WSU Extension office. Trade names have been used to simplify information; no endorsement is intended. Published August 2021.





WASHINGTON STATE UNIVERSITY
EXTENSION

2021 King County Forest Stewardship Extension Education Report

Attachment D:

Updated Follow-Up Evaluation Reports for Past King County and Online Events

Forest Stewardship Coached Planning - One-year follow-up survey results

Course participation and survey response summary

Course Location	Number of courses	Total Registrations (families/groups)	Total Individual Attendees	Properties Represented	Acres Represented	Number Surveyed	Responses (n)	Survey response rate	% of Original
Island	5	101	149	96	1,399	85	77	90.6%	76.2%
King	17	396	602	357	11,201	322	248	77.0%	62.6%
San Juan	2	37	57	37	1,152	34	23	67.6%	62.2%
Skagit	2	53	85	51	3,746	47	34	72.3%	64.2%
Snohomish	6	134	210	127	10,862	126	106	84.1%	79.1%
Whatcom	2	32	44	30	1,167	20	17	85.0%	53.1%
Total In Person	34	753	1,147	698	29,526	634	505	79.7%	67.1%
Online	10	292	495	274	9,723	245	186	75.9%	63.7%
Grand Total	44	1,045	1,642	972	39,248	879	691	78.6%	66.1%

Summary of stewardship activities implemented by participants using course knowledge

Course Location	Improve Roads (mi)	Improve Streams	Build/Improve Trails	PCT (ac)	Comm. Thin (ac)	Harvest (ac)	Planting (ac)	Invasive Weed Control (ac)	Veg. Control (ac)	Pruning (ac)	Improve Habitat (ac)	ADC (ac)	Reduce Fire Risk (ac)	Acres Owned
Island	5	3	23	67	5	42	114	264	105	101	268	86	112	1,119
King	13	13	66	251	148	80	252	1,099	345	293	1,124	307	454	8,124
Online	7	10	53	108	28	48	306	579	214	142	367	127	162	5,253
San Juan	6	2	11	9			7	63	21	21	29	11	18	599
Skagit	3	4	5	13	70	2	49	136	26	53	162	17	65	874
Snohomish	22	6	38	89	85	69	158	235	198	197	613	59	302	4,591
Whatcom	9	1	3		10	96	95	147	90	20	141	31	6	1,472
Grand Total	65	39	200	537	346	337	981	2,522	999	828	2,703	637	1,119	22,032



WASHINGTON STATE UNIVERSITY
EXTENSION

Behavior change

Course Location	Completed a Stewardship Plan			Implemented New Practices		
	Yes	No	% Yes	Yes	No	% Yes
Island	37	33	52.9%	65	7	90.3%
King	153	76	66.8%	199	33	85.8%
SanJuan	6	17	26.1%	22	1	95.7%
Skagit	18	16	52.9%	27	7	79.4%
Snohomish	51	50	50.5%	93	8	92.1%
Whatcom	5	10	33.3%	15	2	88.2%
Total In Person	270	202	57.2%	421	58	87.9%
Online	70	100	41.2%	151	21	87.8%
Grand Total	340	302	53.0%	572	79	87.9%

Attitude Change

Course Location	Increased enjoyment of forest			Increased understanding of ecological importance of forest			Increased likelihood of retaining forest as forest			Increased likelihood of using professional forester if harvesting		
	Yes	No	% Yes	Yes	No	% Yes	Yes	No	% Yes	Yes	No	% Yes
Island	65	4	94.2%	63	6	91.3%	58	10	85.3%	54	8	87.1%
King	207	20	91.2%	213	13	94.2%	193	31	86.2%	165	17	90.7%
SanJuan	23	0	100.0%	21	2	91.3%	21	2	91.3%	19	0	100.0%
Skagit	31	3	91.2%	13	0	100.0%	25	9	73.5%	8	1	88.9%
Snohomish	93	8	92.1%	52	1	98.1%	86	13	86.9%	43	4	91.5%
Whatcom	14	3	82.4%	13	4	76.5%	12	5	70.6%	10	1	90.9%
Total In Person	433	38	91.9%	375	26	93.5%	395	70	84.9%	299	31	90.6%
Online	160	9	94.7%	163	7	95.9%	142	26	84.5%	127	15	89.4%
Grand Total	593	47	92.7%	538	33	94.2%	537	96	84.8%	426	46	90.3%

Other outcomes

Course Location	Gained tools needed for successful land stewardship			Gained tools to help others with successful land stewardship			Shared course knowledge with others			Total people shared	Average people shared	Recommended course to others		
	Yes	No	% Yes	Yes	No	% Yes	Yes	No	% Yes			Yes	No	% Yes
Island	61	8	88.4%	53	17	75.7%	73	2	97.3%	662	9.7	73	4	94.8%
King	217	10	95.6%	175	49	78.1%	225	12	94.9%	1,783	8.2	217	27	88.9%
San Juan	23	0	100.0%	14	9	60.9%	22	1	95.7%	116	5.5	19	4	82.6%
Skagit	32	2	94.1%	23	11	67.6%	31	2	93.9%	273	9.4	28	6	82.4%
Snohomish	96	5	95.0%	77	24	76.2%	100	4	96.2%	840	8.5	92	14	86.8%
Whatcom	16	1	94.1%	10	7	58.8%	15	2	88.2%	135	9.6	11	5	68.8%
Total In Person	445	26	94.5%	352	117	75.1%	466	23	95.3%	3,809	8.5	440	60	88.0%
Online	167	2	98.8%	123	48	71.9%	173	12	93.5%	1,267	7.5	153	31	83.2%
Grand Total	612	28	95.6%	475	165	74.2%	639	35	94.8%	5,076	8.2	593	91	86.7%

Example One-Year Follow-Up Comments for the King County Forest Stewardship Coached Planning Courses



WASHINGTON STATE UNIVERSITY
EXTENSION

2019 Courses (Survey Year 2020)

Information has benefitted immensely, helped me enjoy the woods more, upped my awareness of the dynamic qualities of forests. Grateful to have had the chance to take the course.

The class really helped us learn to look at and evaluate our forest land in a way we didn't before. We could not have completed our plan without it. We are very early in our implementation, but feel confident in our direction because of the class. Thank you!

We got a lot out of the class. We are now able to work on our plan with achievable goals each year. It is less overwhelming. I appreciate our forest more, our accomplishments. I also appreciate the forest on my hikes more.

Although we have not yet prepared the plan, the forest stewardship program is critical in our effort to launch management activities in our forest that will benefit us and our co-owners' families for generations to come.

Really sensitized us to preparing for climate change in how we manage our forest.

I like being part of a forest stewardship community. I feel like your program is indispensable for forest owners but also for the general public by protecting our forests for generations to come!

2018 Courses (Survey Year 2019)

The class gave me many ideas about how to actively improve my forested land. It also gave me a motivational boost to tackle some emerging invasive species problems and to improve & expand the existing forested land.

The peace of mind I have gained and not feeling overwhelmed is the first benefit - I understand maintenance will be continual and know I must educate my daughter & husband & 3 grandchildren in the stewardship of their forest - that they will one day inherit.

I have assisted several neighbors in developing plans for their properties, so our whole road has benefitted. Great program - in and out of classroom, before, during & after in the field. Thank you!!

Enjoyed the course - will continue to benefit for years. Also has come in handy for my profession as an architect visiting & evaluating forested sites.

It was especially valuable to know that there are resources and people able to advise and help us with managing our forest land effectively.

Once again, I have to say the Forest Stewardship Program was one of, if not the best, "adult Education" type of programs that we have ever attended. Thank you for putting together this educational outreach program - tremendous value to forested land owners. We looked forward to going to class each week and felt the time was valuable.

I am a better Realtor with land sales. I helped two people put land into open space. I am a better advocate for the forest.

The class was a great way to learn about forestry and get connected with resources for managing one's acreage. We felt very supported as small forest landowners.

2017 Courses (Survey Year 2018)

I look at the ecology of the forest with "new eyes" and even more respect. I am also more in tune with appropriate management of my forest.

2016 Courses (Survey Year 2017)

Great program! The classes helped us to become deeply emotionally invested in our property. We have become forestland advocates for many others.

I think this program more than any other in my area (King Co.) has helped foster and sustain a strong community amongst small forest landowners, forest agency professionals, and forestry contractors. One addition to the program I think would be useful is to have a session where a logger or silviculture professional would be present to offer new insights and answer questions.

This Forest Stewardship program has been one of the best small land owner classes I have attended through the years. I still refer to the information I received from this program, Kevin Zobrist and his staff are very helpful and knowledgeable.

2015 Courses (Survey Year 2016)

Created wonderful friendships with others. Participated in many events. Increased time with family in working toward goals. Learning more about wildlife as we observe the wildlife presence on our property. Deeper enjoyment for the land. More thoughtful approach when dealing with up-keep and management. We see more when walking our land (because of what we have learned).

This program is great and truly needed to help private landowners manage their land properly and sustainably. Even with a land management background, I learned and utilized information from the Coached Planning course to help maintain the health of forested ecosystems on my property and surrounding properties. Thank you!

It provided us with a lot of knowledge to deal with our surrounding forest. We immediately started removing invasive species and reseedling in bare areas. We are also making the forest more diverse. The biggest benefit is that we now know what to do! We really appreciate all the time and effort the WSU personnel put into the class.

I signed up for the course as part of open space requirements. However, I thoroughly enjoyed the course and learned much more than I expected. I plan to thin out some trees soon and truly feel that what I have learned will lead to healthier land.

2014 Courses (Survey Year 2015)

It was a great program, helped me feel a part of my forest. Great people leading the program. People are always commenting how much our kids know from this program. This is a great program!

I learned a lot, made some nice connections and feel empowered to positively effect change as a forest steward. Heck, I'm even wearing my hat almost every day since the class--you touched a life and our forest will benefit for as long as I live.

2013 Courses (Survey Year 2014)

This course absolutely enhanced my work as an educator. I can't wait to someday own my own land and be an effective forestland steward!

It is a great community, and helps build community around forest management. It provides a comfortable place to ask any and all questions. Staff is approachable and honest and provides great support. Thanks so much for all your hard work! I would highly recommend this class to any tree owners or future tree owners.

It is amazing how much I learned from the Forest Stewardship Program. It was the best class I ever took. The class program was extremely well planned and taught. Thanks for all the efforts.

2012 Courses (Survey Year 2013)

I run an educational organization and I was very impressed with the format and professionalism of the class and instructors. So much that I have modified our own classes to take advantage of what I learned from you. Excellent class - excellent teachers! Keep up the great work!

We inherited the land after my father-in-law's sudden passing. The breadth of instruction of the Forest Stewardship Program provided the foundation of all of our choices and subsequent actions in the stewardship of our 36 acres

I have become much more aware of forest (and landscape) health and how to enhance its future health. I really look at our forests with a more educated "eye" to understand what is or is not being done to preserve and protect healthy forest land.

2011 Courses (Survey Year 2012)

I do not own any land but am a teacher for a small conservation non-profit. I have used information from this course to develop curriculum, teach co-workers and students. It is an excellent class and I would take it over again in a heart-beat.

The class altered my way of thinking about our forest - from a hands-off approach to proactive management and to develop small scale non-timber revenue. Connected me to new friends. It was fantastic.

2010 Courses (Survey Year 2011)

The course we took opened our eyes to the broader spectrum of life in the forest and how each of the individual elements work on its own and in partnership with the greater forest. It was hugely helpful in opening our eyes to the diversity of life on our property and gives us a "starting" understanding of its stewardship. Just as important, it helped us understand what "not" to do as part of a stewardship program.

The class gave us the tools we needed to clarify and record what we wanted to accomplish and provided us with contacts to help us do it. Thank you. We should have taken it years ago!

Example One-Year Follow-Up Comments for the Online Forest Stewardship Coached Planning Courses



WASHINGTON STATE UNIVERSITY
EXTENSION

2020 Courses (Survey Year 2021)

Really appreciated the walk through with a forester to better understand what we should and shouldn't be concerned with. Having that impartial expert input is especially important in dealing with community-owned lands.

This course was by far one of the most enlightening and engaging programs I have ever had the pleasure of taking. Thank you!

I do not own forest land. However, this program has helped me tremendously in providing the tools and knowledge of stewardship of public lands and parks in association with the city. Thank you.

I can't say enough about the program. It was so well done - to switch to full virtual is hard, but you did it so well and the classes were engaging. I learned a lot, and while I have not been able to write my plan yet, the training has helped so much in planning. We also used what we learned to help guide our talks with two hired professionals when two trees needed to be removed and when we needed to trim branches in heavily used areas. We have all the materials ready to go when we are able to write out plan, but more importantly, your class gave us the confidence to get to work.

Provided a framework in which to view and manage our property. It has also helped us better enjoy our property and provided us with a vision of our forest in the future. We appreciate having participated in the program.

This program was invaluable in helping us get started on a long-term plan for stewardship of our property.

I am much more confident about managing my land and advising neighbors. We learned a lot, and really enjoyed it.

This has increased my awareness of and participation in forest stewardship beyond just my land. You also inspired me to seek employment in the forestry field!

2019 Courses (Survey Year 2020)

It connected us to a lot of good resources in DNR and the county as well as Extension. Gave us new eyes as we move about our woods.

2018 Courses (Survey Year 2019)

it was the best groundwork for further education. Provided a vocabulary to communicate with others who own tree farms. I have gone on to join WA Tree Farmer + WA Farm Forest Assoc. I am now a certified tree farmer - needed to have the class to do it. Thanks Kevin.

The program has opened my eyes to a completely "new way" of thinking regarding large plots of land/forests. The need to implement [best management practices] is vital to saving & protecting what nature has given us.

This class hugely impacted our understanding of not only our acres, but all forest lands on this side of Cascades. Spurred us to form a neighborhood Stewardship Plan (approved now!) and because of it I have spoken with several kindergarten classes about trees & forest lands. The class was so good I am tempted to take it again as a reminder of many aspects of forest stewardship I probably missed the first time. I can't say enough about how important this class has been for me and for all adjoining landowners to ours.

I loved your program. I felt honored to be involved. I learned lots about forestry + my personal piece. All the educators in the program were excellent.

2017 Courses (Survey Year 2018)

Excellent class and program. We would not have chosen to manage our forest land without it.

As a small plot owner I still found this course both amazingly informative and still relevant to my situation. Learned a great deal. Thank you.

Knowledge gained in class continues to be hugely valuable in day-to-day management and long-term decision making.

2016 Courses (Survey Year 2017)

I went through this class so that I could more accurately recommend/discuss it with the landowners I work with. I found it a very worthwhile experience both personally & professionally & I do recommend it often.

Thank you for having this class and providing this opportunity. I needed the help to create the plan because my father had died and this was a way for me to keep the property in forestry and start to learn more about tree farming and the property I inherited. I have lots to learn and keep up with updating my management plan & implementing the plan.

We recognize so many more things than we did prior to participating. We have our 3 families and 1 family adjacent who all benefited from the class. Our trees are much more likely to grow healthy. Our enjoyment is broader, enhanced by this class. We learned a great deal from each class and enjoyed tromping through our woods to apply education. We received answers to questions from each of the instructors in a timely manner. The online format probably increased input from other class participants (less shyness) and we learned from others' comments. The notebook/CD is a fantastic resource. Field day is a great resource - professional counsel on many topics. Instructors very knowledgeable and quality instructor. We work 10-hour days and my husband travels - online class made this accessible to us.

Learned about KCD and we're now using them to help with planting thousands of trees on our property - thanks!

2014 Courses (Survey Year 2015)

This was a great class. I enjoyed every evening and looked forward to it. It has energized my entire family to be more interested in our property. It has even helped our neighbors be more interested in their forest. I refer to my class binder when I need a reference tool. I learned so much, just wish I had more free time to play in the woods...

We have appreciated this class more than we can express. Because of this we have planted about 200 small evergreens this year, and they are off to a successful start (protected from deer, planted right species for areas, etc.) - about 98% success rate so far! Our past attempts to plant new trees failed because we didn't know what to plant, how to protect, etc. Thank you!!!

2012 Courses (Survey Year 2013)

Very rewarding program. I feel much better qualified to care correctly for my property.

We have a 6 year old daughter. She is learning how to take care of our forest, learning the plants & trees, wildlife. The course was very important helping me teach my daughter.

Happy to spend tax dollars on such a valuable and important resource.

This is a great program which benefits both forest owners and the general population.

We have particularly seen the economic benefits of our land, particularly with non-forest timber products and the ability to aid our grandchildren in learning about ecological forest management and nature!

Forest Stewardship Coached Planning - Three-year follow-up survey results

Course participation and survey response summary

Course Location	Number of courses	Total registrations (families/groups)	Total individual attendees	Properties represented	Acres represented	Number surveyed	Responses (n)	Survey response rate	% of Original
Island	4	78	117	73	1,243	58	42	72.4%	53.8%
King	15	356	534	320	10,557	242	173	71.5%	48.6%
San Juan	1	17	31	17	225	12	9	75.0%	52.9%
Skagit	2	53	85	51	3,746	43	25	58.1%	47.2%
Snohomish	6	134	210	127	10,862	108	95	88.0%	70.9%
Whatcom	1	23	28	22	742	16	16	100.0%	69.6%
Total In Person	29	661	1,005	610	27,374	479	360	75.2%	54.5%
Online	7	161	271	155	5,090	127	101	79.5%	62.7%
Grand Total	36	822	1,276	765	32,463	606	461	76.1%	56.1%

Stewardship plan completion and use

Course Location	Completed a Stewardship Plan			Has reviewed stewardship plan				Used plan to enroll in current use tax program				Enrolled in cost share program				
	Yes	No	% Yes	Yes	No	% Yes	Average annual reviews	Yes	No	% Yes	Average annual savings	Yes	No	% Yes	Total cost share payments	Average cost share payment
Island	25	11	69.4%	16	7	69.6%	2.3	13	21	38.2%	\$1,421	3	28	9.7%	\$3,800	\$1,267
King	127	35	78.4%	106	17	86.2%	1.8	90	60	60.0%	\$3,360	33	116	22.1%	\$510,817	\$23,219
San Juan	3	6	33.3%	3	0	100.0%	1.3	0	9	0.0%		1	8	11.1%		
Skagit	20	3	87.0%	16	4	80.0%	1.4	7	15	31.8%	\$1,667	2	20	9.1%	\$7,000	\$7,000
Snohomish	62	23	72.9%	49	11	81.7%	1.9	29	39	42.6%	\$2,261	14	57	19.7%	\$30,511	\$4,359
Whatcom	12	4	75.0%	10	5	66.7%	1.7	1	15	6.3%	\$5,000	2	14	12.5%	\$13,800	\$6,900
Total In Person	249	82	75.2%	200	44	82.0%	1.8	140	159	46.8%	\$2,848	55	243	18.5%	\$565,928	\$16,169
Online	72	24	75.0%	59	11	84.3%	1.9	43	51	45.7%	\$3,169	18	73	19.8%	\$129,000	\$14,333
Grand Total	321	106	75.2%	259	55	82.5%	1.8	183	210	46.6%	\$2,931	73	316	18.8%	\$694,928	\$15,794



WASHINGTON STATE UNIVERSITY
EXTENSION

Behavior and condition changes

Course Location	Implemented wildlife habitat improvements			Resulted in Increased wildlife use			Implemented invasive weed control			Resulted in reduced invasive weed			Sold forest products			
	Yes	No	% Yes	Yes	No	% Yes	Yes	No	% Yes	Yes	No	% Yes	Yes	No	% Yes	Total revenue
Island	25	2	92.6%	19	5	79.2%	21	6	77.8%	12	6	66.7%	8	27	22.9%	\$139,000
King	81	17	82.7%	43	34	55.8%	80	19	80.8%	67	11	85.9%	19	136	12.3%	\$1,249,987
San Juan	6	3	66.7%	4	2	66.7%	6	3	66.7%	6	0	100.0%	0	9	0.0%	
Skagit	5	0	100.0%	3	2	60.0%	4	1	80.0%	4	0	100.0%	5	17	22.7%	\$109,750
Snohomish	15	3	83.3%	8	5	61.5%	16	2	88.9%	10	4	71.4%	18	58	23.7%	\$507,443
Whatcom	2	2	50.0%	9	5	64.3%	14	2	87.5%	9	4	69.2%	1	15	6.3%	\$150
Total In Person	146	27	84.4%	86	53	61.9%	141	33	81.0%	108	25	81.2%	51	262	16.3%	\$2,006,330
Online	69	8	89.6%	37	26	58.7%	66	7	90.4%	51	13	79.7%	11	80	12.1%	\$591,500
Grand Total	215	35	86.0%	123	79	60.9%	207	40	83.8%	159	38	80.7%	62	342	15.3%	\$2,597,830

Additional impacts

Course Location	Increased management comfort and confidence			Increased quality of life			Change in likelihood of conversion								
	Yes	No	% Yes	Yes	No	% Yes	Less likely		More likely		No Change		Average conversion likelihood 1 = highly unlikely, 5 = highly likely		
							Number	%	Number	%	Number	%	Before	After	Change
Island	36	1	97.3%	33	3	91.7%	7	21.2%	0	0.0%	26	78.8%	2.71	1.00	1.71
King	161	3	98.2%	147	13	91.9%	55	36.2%	4	2.6%	93	61.2%	2.73	1.49	1.24
San Juan	8	1	88.9%	8	1	88.9%	1	11.1%	1	11.1%	7	77.8%	2.00	2.00	0.00
Skagit	22	0	100.0%	20	0	100.0%	6	28.6%	0	0.0%	15	71.4%	2.33	1.17	1.17
Snohomish	84	1	98.8%	78	1	98.7%	20	24.7%	1	1.2%	60	74.1%	2.76	1.38	1.38
Whatcom	14	2	87.5%	10	6	62.5%	5	31.3%	0	0.0%	11	68.8%	2.40	1.40	1.00
Total In Person	325	8	97.6%	296	24	92.5%	94	30.1%	6	1.9%	212	67.9%	2.68	1.42	1.26
Online	91	2	97.8%	83	9	90.2%	24	26.4%	2	2.2%	65	71.4%	2.38	1.35	1.04
Grand Total	416	10	97.7%	379	33	92.0%	118	29.3%	8	2.0%	277	68.7%	2.62	1.40	1.21

Example Three-Year Follow-Up Comments for the King County Forest Stewardship Coached Planning Courses



WASHINGTON STATE UNIVERSITY
EXTENSION

2018 Courses (Survey Year 2021)

Significant amount of information and knowledge provided through a very well taught slate of instructors. One of the better "adult education/community education" courses we have taken. Well done. Excellent program. First-class education on what to be doing with your forest regardless of objectives. Thanks for the program and all the extra effort and work that your team puts in. We are enjoying our 125 yr. old forest even more now.

Gained confidence about what I can do to actively manage forest health. Knowing I can actually do things to help create a better, healthier forest and it's not a "hands off" easement on my property. Enjoying projects like tree planting, some cleanup, habitat creation, etc.

A lot of my prior practice was informed by trial and error. The course taught me to be more methodical and gave me a base of knowledge to work from. The course gave me a better understanding of the benefits of keeping the property forestland and the tools to better steward it.

I like the continued support. I can ask questions and get info even after the class is over.

Knowledge gained is used and enjoyed every day! Incalculable benefit to both of us in managing, understanding, and enjoying our forest! Also, I've become a forest steward for a 6.5 acre greenbelt in central Seattle, so I apply my skills all year round, and with others!

Very definitely this course has helped us. We were very pleased with the course. We are happy to see all the wildlife and are proud that we have improved our land.

It has helped me be a better conservationist. It has given me in depth knowledge about soils, microclimates, tree health. I would do it again in a heartbeat.

2017 Courses (Survey Year 2020)

To more confidently spend time in the forest and have a positive impact on its health is a good feeling.

Maintaining our 5 acre club property has become more enjoyable as I can apply much of the learning from the course. Also being able to help club members, many of whom are small landowners, with forestry questions. If you have rural interests and lifestyle, this course definitely helps in ways you can share with neighbors and friends.

My neighbors see my "stewardship forest" sign and ask questions about it, also now asking more questions about forest advice. I look at forest differently now, more with respect to general health and wildlife benefits.

Home is greener, land is more affordable (PBRs qualification), habitat for all life, including mine, is improved, awareness of community vision and restoration goals acknowledged.

2016 Courses (Survey Year 2019)

Generally fantastic knowledge gain and exposure to the ideas and practice of forest management.

We have developed a much deeper connection with our forest as a result of what we learned and a deeper knowledge of how to help keep our treasure intact. Learning about the different aspects of our forest and what the impact of developing vs. not developing has on our environment. Learning about how complex our forest is. The biggest takeaway was the understanding of just how important it is to maintain these green pockets of forest and to protect them. Also, learning how to do it!

I have a much easier time dealing with the invasives from the knowledge I've gained. I've also gained a deeper appreciation for the hardwood nature of most of the property. Originally I viewed it as "disturbed" and in need of trying to force it back to conifer...I now know that it would have been a mistake and I'd have been unhappy trying to fight something that wasn't broke.

The Forest Stewardship Program helped re-invigorate our management of our forest. The class was outstanding.

I gained informative information on how to manage my forest land, increasing my family's enjoyment of the property, how to make improvements for wildlife, and how to build a forestry management plan.

2015 Courses (Survey Year 2018)

We walk the paths we created, get pictures of wildlife on trail cams. Have family gatherings, and forest field days with WSU. It's all extremely enriching, we've also formed relationships with neighbors and others as a direct result of the program, thus increasing our quality of life. The people we have met, the wealth of knowledge we have either gained or have access to is incredible. The enjoyment we've had playing and working hard to implement our stewardship plan. Priceless!! Thank you Kevin.

We enjoy our forest more and appreciate the many interrelationships in it. We are more knowledgeable about wildlife - and the threat of wildfires and what we can do to reduce the risk.

If you own forestland there's nothing better than feeling that you're taking care of it properly. This is a great program.

2014 Courses (Survey Year 2017)

I really benefitted a lot from it thinking back to the classes. There was a lot to the class. Extremely good information that the average forest homeowner does not know. I have always loved the forests, but have better appreciation for it. The teachers were all excellent at teaching the material too. I would recommend this program to anyone who owns forest land. I just appreciate the forest and what it does for us. The class just helped to make me see how much forest land is important to keep and manage.

It was a great way to familiarize ourselves with our property. We understand that we can actually do stuff with our trees that is helpful to the overall ecosystem as opposed to "Don't know if we can cut down any trees."

2013 Courses (Survey Year 2016)

We understand a lot more about the habitat that we live in (home) and how we can improve it. Understanding the tax benefits of keeping the forested space large enough to qualify for reduced tax program. Might have sold partial before or subdivided in half.

I think we enjoy owning our forestland more after taking this class. We learned a lot; and its made us more aware of things we can do to improve our forest land. We are building a home on our land and what we have learned - particularly about wildfire contol - has helped us make decisions that will make our home site safer.

As an informal educator, I teach my 4th-12th grade students about the characteristics of a healthy forest ecosystem. I continue learning all I can to supplement my teaching. One of our curriculum is about land use goals. The Forest Stewardship Program gave me a new perspective on forest management, which enhances the lessons I teach.

2012 Courses (Survey Year 2015)

Created increased interest by other family members and neighbors. Family and neighbors wanting to spend time in the forest. I spoend more time bird and animal watching. Enjoying the property much more--not just looking out the window.

2011 Courses (Survey Year 2014)

I was a teacher for Mountains to Sound Greenway when I took this class. It informed curriculum development on issues like forestry wildlife, salmon, land use, history of the land. Great class for me as an instructor and program manager.

We value our property more since taking the class. We learned the value of our property and what it holds in this small ecosystem. Kevin was/is an outstanding instructor. He did a great job presenting materials. We look at our property in a whole new way. We don't have enough land to enter into stewardship but value the information we got.

The broad scope of the program--multiple uses/practices tailored to individual goals and objectives is very useful when working with clients with various needs and circumstances.

The stewardship program helped me to understand the process of a forest, what to look for in out of balance systems and how to correct/manage these processes. Each time I visit my property I discover something new! The stewardship program set the stage for my exploration into forest permaculture practices and a holistic approach to forest management. I cannot speak highly enough of the content/quality of instruction this program provided.

Excellent program taught by excellent staff and volunteers. I would recommend it to anyone who has a desire to understand the NW ecology and economy besides forest owners. It has made decision making of priorities for the land much easier. It made dealing with the state regulations and DNR less complicated.

This program is a valuable resource. It provided me with a treasure trove of information I didn't know I needed and a much stronger sense of the gaps in my knowledge. It also provided me with useful information for how to care for the trees on my residential property.

2010 Courses (Survey Year 2013)

The program made me aware of how important stewardship is on the fractured urban environment. Your training is super! You covered extensive material in a format any layman can understand.

Appreciation for wildlife. Knowing how to maintain trails. Better understanding of how our forest works. Sharing what we learned with children, grandchildren, and neighbors. Gave me knowledge and answered questions about things I always wanted to know about. Because of us taking this class, one of our neighbors developed a forest stewardship plan and is restoring her forested wetlands...We encourage other people to take the class also. We get a lot of satisfaction knowing that we can make a difference in preserving the forest land of WA.

This class and a subsequent class that I took have made me feel more connected to the land and ecology of the region, and I derive great pleasure and satisfaction from being on the land. I really enjoyed the class and it benefitted me greatly in the knowledge that I learned.

2009 Courses (Survey Year 2012)

The program gave me the building blocks for a long term approach to achieving my goals for my property.

Before taking the class, we looked at it as something that had been in the family for 80 years. Now we have the proper tools and passion to manage it.

As a result of creating a forest stewardship committee in our HOA, we have been able to engage more homeowners in our forest stewardship efforts and educate them about noxious weed control. We are now in the process of creating forest management guidelines for future HOA board to follow/utilize. I personally have continued to attend WSU Extension training/education workshops, as chair of our forest stewardship committee, and this has led to significant changes in the HOA's policies and management of our community areas. Many thanks!

The best time I have ever spent on continuing education.

I could have been killed in my own woods by trees I had not realized dangerous. I thought I had a class 3 or 4 forest. When I learned it was healthy, I have become active in preservation techniques, that I did not know existed. The enthusiasm of teachers and staff was motivational and in turn I think I've been able to pay-it-forward and helped enroll others in the course. Maintaining this property to be healthy for years to come is based on today's choices and the process gives me a sense of immortality.

Pleasure gained from understanding the surrounding forestland is a gain in life quality. Interests pursued as a result of knowledge gained, also is an improvement in life quality. Contacts with likeminded people and business contacts all resulted from the program. Our son took an environmental degree at UW as a result of work on this land.

My land is closer to the way I want it to be, especially increasing my knowledge and enjoyment of the birds. The decreased taxes also reduces economic stress and leaves me freer for other pursuits.

Example Three-Year Follow-Up Comments for the Online Forest Stewardship Coached Planning Courses



WASHINGTON STATE UNIVERSITY
EXTENSION

2018 Courses (Survey Year 2021)

This program was amazing. I learned so much and found there are folks in Washington involved in such program--from both the teaching and learning sides. Thank you!!!

Much increased appreciation for the forest and its health. Grandchildren have learned huge amounts about environment--both care of it and IDs. As a new resident of WA when I took this course it was invaluable to me as well as a wonderful resource for my 12 family members!

A great program with useful direction to excellent resources. Kevin is very responsive and a good personal resource.

2017 Courses (Survey Year 2020)

The class greatly enhanced our understanding of and appreciation for our forest and for sustainable forestry management. It served as a very helpful introduction.

It has enhanced our enjoyment of our beautiful forest.

Factual knowledge is always a good thing. I feel more confident about what I observe and how we should respond. I love being able to share things I have learned with visitors to our property.

This program is incredibly valuable in its broad outreach to a great variety of land/forest owners in its considerations of both the economic and non-monetary impacts of informed forest management as well as being just plain informative and fun! Realized the unique value of my modest 'woods' and how its small contribution to my community's well being outweighed purely economic measure. Class/program has helped me be a better informed landowner, encouraging me in specific ways to care for and enhance the environment. Well worth the investment of time and money.

What I learned in the class convinced me I could access resources to manage the property.

2016 Courses (Survey Year 2019)

This program connected us w/ the tools and resources I needed in making high level decisions regarding our management goals. I will be a 'repeat customer' in the future years. Thank you Kevin & staff.

This forestry program really provides a way forward for small landowners in a way that is not available through other means. I hope that the Forest Stewardship Program continues with robust funding and support - I tell people inside & outside of our community about you as a resource for them to learn about how to care for their land.

I am so thankful to have taken the class! Not only for the money it has saved me in taxes and cost share, but mostly for the knowledge it gave me to be a steward to my property and to take action that has and will reduce fire risk and improve my forest health long term and increase the long term value of my timber and property. Being that I acquired my land and took this class at a "young" age (33 at the time), I feel this class and what I learned from it is going to pay lifelong dividends. Over the next 30-40 years of my life I will be able to augment and appreciate the health & growth of my property in ways I would have never known to do prior--some being time sensitive and will have drastic positive impact. Thank you!

2015 Courses (Survey Year 2018)

Have recommended program to many other people. Have used our stewardship plan as an example of how the 'uneducated' land owner can become a better steward of their land whether it be to sell timber or allow to become an area to enhance wildlife & recreation. The expertise & enthusiasm held by those involved in the Stewardship Program are unparalleled. Thank you!

It was a great class! My wife and I knew nothing about forest management before taking this class. We came to understand and appreciate our beautiful 20 acre forest lot so much more. Thank you Kevin!!

It was so much fun and we now have kind of a leadership role in our area around conservation. Gaining more knowledge + enjoyment from property. We are looking at joining with neighbors to put our properties in conservation.

With greater understanding of my forest ecosystem, I appreciate and enjoy improving my forest land than would be possible without the class.

I knew literally nothing about being a small forester. This program was my gateway to the people and programs and tools to being my stewardship.

2014 Courses (Survey Year 2017)

The program gave us knowledge and confidence to plan and move ahead with tree planting and management. Our property is much better used and enjoyed now, even with the extra work we've had to do (exercise is good for us, right?)

Knowing what to do and how to do it right is invaluable.

2013 Courses (Survey Year 2016)

It was a good course , good information, and put together and presented in such a way as to give a person a bit more perspective on what's going on around them on their property.

2012 Courses (Survey Year 2015)

I have a new outlook and appreciation for the forest and its ecosystem. I am confident that I can contribute to our community tree farm program.

Lots of great info that would be difficult to duplicate. Great course.

Forest Stewardship Coached Planning - Eight-year follow-up survey results

Course participation and survey response summary

Course Location	Number of courses	Total registrations (families/groups)	Total individual attendees	Properties represented	Acres represented	Number surveyed	Responses (n)	Survey response rate	% of Original
Island	2	39	59	38	678	27	18	66.7%	46.2%
King	6	150	224	135	5,003	117	81	69.2%	54.0%
San Juan	0								
Skagit	1	30	49	30	855	25	18	72.0%	60.0%
Snohomish	3	85	136	80	8,991	75	71	94.7%	83.5%
Whatcom	0								
Total In Person	12	304	468	283	15,526	244	188	77.0%	61.8%
Online	2	31	51	31	1,529	25	21	84.0%	67.7%
Grand Total	14	335	519	314	17,054	269	209	77.7%	62.4%



WASHINGTON STATE UNIVERSITY
EXTENSION

Stewardship plan status and use

Course Location	Has a stewardship plan			Has reviewed stewardship plan				Last time plan updated				
	Yes	No	% Yes	Yes	No	% Yes	Average annual reviews	Within past year	Within past 2 years	Within past 5 years	Longer than 5 years	Never
Island	6	1	85.7%	10	1	90.9%	2.2	9.1%	0.0%	27.3%	27.3%	36.4%
King	36	7	83.7%	40	4	90.9%	1.6	7.3%	2.4%	14.6%	9.8%	65.9%
San Juan	0	0		0	0							
Skagit	13	1	92.9%	9	3	75.0%	1.2	11.1%	0.0%	22.2%	22.2%	44.4%
Snohomish	40	8	83.3%	29	5	85.3%	1.8	9.4%	6.3%	6.3%	9.4%	68.8%
Whatcom	0	0		0	0							
Total In Person	95	17	84.8%	88	13	87.1%	1.7	8.6%	3.2%	14.0%	12.9%	61.3%
Online	6	2	75.0%	11	0	100.0%	1.5	8.3%	8.3%	8.3%	33.3%	41.7%
Grand Total	101	19	84.2%	99	13	88.4%	1.7	8.6%	3.8%	13.3%	15.2%	59.0%

Implemented new practices using course knowledge

Course Location	Implemented new practices		
	Yes	No	% Yes
Island	14	2	87.5%
King	51	1	98.1%
SanJuan	0	0	
Skagit	13	0	100.0%
Snohomish	44	2	95.7%
Whatcom	0	0	
Total In Person	122	5	96.1%
Online	16	0	100.0%
Grand Total	138	5	96.5%

Economic impacts

Course Location	Enrolled in a current use tax program				Enrolled in cost share program					Sold forest products			
	Yes	No	% Yes	Average annual savings	Yes	No	% Yes	Total cost share payments	Average cost share payment	Yes	No	% Yes	Total revenue
Island	4	3	57.1%	\$1,345	1	6	14.3%	\$2,500	\$2,500	3	12	20.0%	\$24,552
King	26	16	61.9%	\$3,818	9	32	22.0%	\$73,000	\$9,125	8	46	14.8%	\$508,075
San Juan	0	0			0	0				0	0		
Skagit	6	8	42.9%	\$1,907	1	13	7.1%			8	6	57.1%	\$508,850
Snohomish	15	32	31.9%	\$1,993	9	37	19.6%	\$36,288	\$4,536	15	33	31.3%	\$521,300
Whatcom	0	0			0	0				0	0		
Total In Person	51	59	46.4%	\$2,655	20	88	18.5%	\$111,788	\$6,576	34	97	26.0%	\$1,562,777
Online	2	5	28.6%	\$2,000	0	8	0.0%			4	12	25.0%	\$500,400
Grand Total	53	64	45.3%	\$2,637	20	96	17.2%	\$111,788	\$6,576	38	109	25.9%	\$2,063,177

Ongoing sharing and recommending course to others

Course Location	Recommended course to others			Last time course recommended				Shared course knowledge with others			Last time course knowledge shared			
	Yes	No	% Yes	Within past year	Within past 2 years	Within past 5 years	Longer than 5 years	Yes	No	% Yes	Within past year	Within past 2 years	Within past 5 years	Longer than 5 years
Island	16	1	94.1%	50.0%	25.0%	6.3%	18.8%	15	1	93.8%	53.3%	33.3%	6.7%	6.7%
King	50	7	87.7%	36.0%	30.0%	18.0%	16.0%	50	2	96.2%	60.0%	16.0%	16.0%	8.0%
San Juan	0	0						0	0					
Skagit	12	2	85.7%	33.3%	33.3%	0.0%	33.3%	9	5	64.3%	77.8%	0.0%	11.1%	11.1%
Snohomish	48	3	94.1%	27.1%	35.4%	27.1%	10.4%	49	1	98.0%	73.5%	8.2%	12.2%	6.1%
Whatcom	0	0						0	0					
Total In Person	126	13	90.6%	34.1%	31.7%	18.3%	15.9%	123	9	93.2%	65.9%	13.8%	13.0%	7.3%
Online	14	2	87.5%	64.3%	7.1%	28.6%	0.0%	16	0	100.0%	75.0%	12.5%	12.5%	0.0%
Grand Total	140	15	90.3%	37.1%	29.3%	19.3%	14.3%	139	9	93.9%	66.9%	13.7%	12.9%	6.5%

Other impacts

Course Location	Helped meet objectives			Still benefitting from course			Attended other WSU forestry programs			Last time WSU program attended			
	Yes	No	% Yes	Yes	No	% Yes	Yes	No	% Yes	Within past year	Within past 2 years	Within past 5 years	Longer than 5 years
Island	7	0	100.0%	17	0	100.0%	13	4	76.5%	23.1%	0.0%	53.8%	23.1%
King	37	1	97.4%	53	2	96.4%	32	25	56.1%	18.8%	18.8%	31.3%	31.3%
San Juan	0	0		0	0		0	0					
Skagit	12	0	100.0%	12	0	100.0%	4	10	28.6%	50.0%	0.0%	25.0%	25.0%
Snohomish	46	0	100.0%	52	0	100.0%	27	25	51.9%	7.4%	14.8%	51.9%	25.9%
Whatcom	0	0		0	0		0	0					
Total In Person	102	1	99.0%	134	2	98.5%	76	64	54.3%	17.1%	13.2%	42.1%	27.6%
Online	7	1	87.5%	16	0	100.0%	12	4	75.0%	25.0%	16.7%	16.7%	41.7%
Grand Total	109	2	98.2%	150	2	98.7%	88	68	56.4%	18.2%	13.6%	38.6%	29.5%

Example Eight-Year Follow-Up Comments for the King County Forest Stewardship Coached Planning Courses



WASHINGTON STATE UNIVERSITY
EXTENSION

2013 Courses (Survey Year 2021)

The forest stewardship program provided a lot of very helpful information that has inspired me to learn more about the native plants and animals in my area and to use that knowledge to restore my property. Thank you!

We both really enjoyed the 8 weeks of course sessions. We learned a lot and have a valuable resource in the course literature that we often use as a reference. We were very impressed with Kevin and all of the course presenters. Thank you.

The resources and contacts we received from the courses have been a continuing source of assistance for us as we move thru wildfire safety and healthy forest work.

2012 Courses (Survey Year 2020)

Working more closely with my neighbor who is also in a program to solve any issues together. Watching more birds and wildlife which both continue to expand in species and number. Making my contribution to cleaner air, water and earth to benefit all inhabitants makes me feel good about how I spend my time and money. I love Kevin's newsletters which keep me up to date on happenings in our area and resources to continue to be a good steward.

Wonderful asset...everyone who owns land should be required to take this class.

It has given me confidence in my choices for the forest and I still use the resources provided in class.

2011 Courses (Survey Year 2019)

I found this to be an extremely valuable class/program. There is so much to know about forest management, it wouldn't have been possible without this. THANK YOU!!

2010 Courses (Survey Year 2018)

Primary goal was to get PBRS and learn how to steward the land. My tax burden eased significantly and I use knowledge from the experience weekly.

It gave us the knowledge we needed to become familiar with our own property, also contacts we made were priceless (DNR, Forest Service, Pierce Conservation, Forterra). You made us aware of what was available to us!

I would recommend this course to anyone with a serious interest in the workings of forestlands. It is all that much more important now as we begin to see the effects of global warming on local ecology.

The program gave us knowledge and experiences that we are passing forward with our grandchildren. How to protect native vegetation, provide for native birds and animals, and protect water. We are excited about the birds and animals that visit and I am enjoying watching our little trees grow. Thanks, Kevin--we received much from the class--we are so much better prepared to manage our property because of your efforts.

It has given me greatly useful knowledge upon which I have continued to build.

We continue to educate the other homeowners in our area about how to (and not to) manage their own forests and surrounding areas.

2009 Courses (Survey Year 2017)

Since taking the classes I've had opportunities to pass on much of the information learned to others, including my son. Some of the lessons learned, such as invasive species control were applied to our home property, and my wife had an article published in the Valley View on knotweed and lily pad control of Lake Joh and many on the lake have taken steps to control as a result.

The class gave us a fantastic overview of NW forest ecology, and started us on a journey of species discovery and deep appreciation of the larger NW landscape.

It gave us a total background on how to handle our forest. It was especially helpful finding out about grants that could help us with cost sharing on improving the health of our forest! We ended up with great reference material to continue caring for our land.

It gave me a solid foundation and knowledge base to work from for moving forward, and problem solving as my forest evolves. My land is healthier, more pleasurable and satisfying. I developed a relationship with WSU Forestry Extension which keeps me informed and continues to educate me.

Example Eight-Year Follow-Up Comments for the Online Forest Stewardship Coached Planning Courses



WASHINGTON STATE UNIVERSITY
EXTENSION

2013 Courses (Survey Year 2021)

Use knowledge gained from the course weekly. Sent another person from our office to the training as well.

It's a great course! I recommend it to everyone I meet who owns forested land in western WA. Frankly, I would be completely lost without the knowledge I gained through the course. It helped me understand what I see in my forestland and how to properly care for it.

2012 Courses (Survey Year 2020)

The knowledge provided opened avenues and plans we would not have considered previously.

Our daughter was 5 when we took the course (she helped). She now knows and understands the responsibility of owning forest land.

I have recommended this course to so many people. It is a jewel. I look forward to all of the ongoing follow-up materials WSU Extension - and you - put out there - great benefit. Thank you.

Forest Owners' Field Days - One-year follow-up survey results

Field day participation and survey response summary

Field Day Location	Number of field days held	Total Registrations (families/groups)	Total Individual Attendees	Properties Represented	Acres Represented	Number Surveyed	Responses (n)	Survey response rate	% of Original
Island	0								
King	2	79	129	65	3,420	55	41	74.5%	51.9%
San Juan	2	58	81	53	1,027	40	31	77.5%	53.4%
Skagit	1	37	58	24	1,776	29	24	82.8%	64.9%
Snohomish	2	120	185	94	5,557	82	67	81.7%	55.8%
Whatcom	1	44	69	35	2,399	31	23	74.2%	52.3%
Total In Person	8	338	522	271	14,179	237	186	78.5%	55.0%
Online	1	208	283	184	10,587	169	53	31.4%	25.5%
Grand Total	9	546	805	455	24,766	406	239	58.9%	43.8%



WASHINGTON STATE UNIVERSITY
EXTENSION

Behavior and attitude changes

Field Day Location	Implemented New Practices			Increased enjoyment of forest			Increased understanding of ecological importance of forest			Increased likelihood of retaining forest as		
	Yes	No	% Yes	Yes	No	% Yes	Yes	No	% Yes	Yes	No	% Yes
Island	0	0		0	0		0	0		0	0	
King	40	1	97.6%	39	2	95.1%	36	5	87.8%	31	10	75.6%
San Juan	26	1	96.3%	18	7	72.0%	22	3	88.0%	18	7	72.0%
Skagit	20	4	83.3%	20	4	83.3%	18	6	75.0%	20	4	83.3%
Snohomish	58	4	93.5%	63	3	95.5%	57	8	87.7%	54	9	85.7%
Whatcom	20	3	87.0%	18	5	78.3%	19	4	82.6%	12	11	52.2%
Total In Person	164	13	92.7%	158	21	88.3%	152	26	85.4%	135	41	76.7%
Online	43	5	89.6%	42	2	95.5%	43	1	97.7%	41	3	93.2%
Grand Total	207	18	92.0%	200	23	89.7%	195	27	87.8%	176	44	80.0%

Summary of stewardship activities implemented by participants using field day knowledge

Field Day Location	PCT (ac)	Comm. Thin	Harvest (ac)	Planting (ac)	Invasive Weed Control (ac)	Veg. Control (ac)	Pruning (ac)	Improve Habitat (ac)	ADC (ac)	Reduce Fire Risk (ac)
King	303	20	82	227	326	283	145	352	298	250
Online	154	27	50	37	117	123	74	214	23	346
San Juan	26	21	2	4	76	22	18	86	4	84
Skagit	66	17	107	95	117	92	48	67	40	79
Snohomish	377	225	125	556	949	297	128	773	385	1,300
Whatcom	20		30	66	119	119	54	144	37	88
Grand Total	945	310	396	984	1,701	935	466	1,634	786	2,146

Other outcomes

Field Day Location	Gained tools needed for successful land stewardship			Gained tools to help others with successful land stewardship			Shared field day knowledge with others					Recommended field day to others		
	Yes	No	% Yes	Yes	No	% Yes	Yes	No	% Yes	Total people shared	Average people shared	Yes	No	% Yes
Island	0	0		0	0		0	0				0	0	
King	35	6	85.4%	27	14	65.9%	36	5	87.8%	273	7.6	34	6	85.0%
San Juan	23	2	92.0%	13	11	54.2%	22	5	81.5%	100	4.8	23	3	88.5%
Skagit	22	2	91.7%	15	9	62.5%	22	2	91.7%	122	5.5	20	4	83.3%
Snohomish	59	7	89.4%	47	18	72.3%	59	6	90.8%	346	6.0	55	10	84.6%
Whatcom	21	2	91.3%	13	10	56.5%	20	3	87.0%	149	7.5	18	5	78.3%
Total In Person	160	19	89.4%	115	62	65.0%	159	21	88.3%	990	6.3	150	28	84.3%
Online	42	2	95.5%	43	6	87.8%	38	10	79.2%	311	8.6	29	17	63.0%
Grand Total	202	21	90.6%	158	68	69.9%	197	31	86.4%	1,301	6.7	179	45	79.9%

Forest Owners' Field Days - Three-year follow-up survey results

Field day participation and survey response summary

Field Day Location	Number of field days held	Total Registrations (families/groups)	Total Individual Attendees	Properties Represented	Acres Represented	Number Surveyed	Responses (n)	Survey response rate	% of Original
Island	0								
King	2	79	129	65	3,420	51	42	82.4%	53.2%
San Juan	2	58	81	53	1,027	32	23	71.9%	39.7%
Skagit	1	37	58	24	1,776	24	20	83.3%	54.1%
Snohomish	1	37	57	26	2,345	27	21	77.8%	56.8%
Whatcom	1	44	69	35	2,399	31	22	71.0%	50.0%
Total In Person	7	255	394	203	10,967	165	128	77.6%	50.2%
Online	0								
Grand Total	7	255	394	203	10,967	165	128	77.6%	50.2%

Economic impacts

Field Day Location	Sold forest products				Enrolled in cost share program				
	Yes	No	% Yes	Total revenue	Yes	No	% Yes	Total cost share payments	Average cost share payment
Island	0	0			0	0			
King	4	38	9.5%	\$33,540	8	21	27.6%	\$72,680	\$12,113
San Juan	1	20	4.8%	\$4,000	1	20	4.8%	\$1,000	\$1,000
Skagit	5	13	27.8%	\$804,000	2	16	11.1%	\$2,000	\$2,000
Snohomish	2	19	9.5%	\$30,000	7	14	33.3%	\$113,200	\$22,640
Whatcom	1	17	5.6%	\$2,500	0	17	0.0%		
Total In Person	13	107	10.8%	\$874,040	18	88	17.0%	\$188,880	\$14,529
Online	0	0			0	0			
Grand Total	13	107	10.8%	\$874,040	18	88	17.0%	\$188,880	\$14,529



WASHINGTON STATE UNIVERSITY
EXTENSION

Environmental impacts

Field Day Location	Implemented wildlife habitat			Resulted in Increased wildlife use			Implemented invasive weed control			Resulted in reduced invasive weed cover		
	Yes	No	% Yes	Yes	No	% Yes	Yes	No	% Yes	Yes	No	% Yes
Island	0	0		0	0		0	0		0	0	
King	37	5	88.1%	23	10	69.7%	36	5	87.8%	32	2	94.1%
San Juan	19	2	90.5%	9	10	47.4%	10	10	50.0%	6	3	66.7%
Skagit	13	5	72.2%	5	8	38.5%	12	6	66.7%	10	2	83.3%
Snohomish	19	2	90.5%	11	7	61.1%	16	5	76.2%	16	0	100.0%
Whatcom	6	6	50.0%	5	7	41.7%	10	8	55.6%	7	3	70.0%
Total In Person	100	20	83.3%	53	42	55.8%	84	34	71.2%	71	10	87.7%
Online	0	0		0	0		0	0		0	0	
Grand Total	100	20	83.3%	53	42	55.8%	84	34	71.2%	71	10	87.7%

Other impacts

Field Day Location	Increased management comfort and confidence			Increased quality of life			Change in likelihood of conversion									
							<i>Less likely</i>		<i>More likely</i>		<i>No Change</i>		<i>Average conversion likelihood</i> 1 = highly unlikely, 5 = highly likely			
	Yes	No	% Yes	Yes	No	% Yes	Number	%	Number	%	Number	%	Before	After	Change	
Island	0	0		0	0		0		0		0					
King	37	4	90.2%	30	9	76.9%	5	13.2%	1	2.6%	32	84.2%	2.83	2.00	0.83	
San Juan	20	1	95.2%	14	6	70.0%	1	4.8%	0	0.0%	20	95.2%	2.00	1.00	1.00	
Skagit	17	1	94.4%	15	2	88.2%	4	23.5%	0	0.0%	13	76.5%	2.75	1.50	1.25	
Snohomish	17	2	89.5%	16	4	80.0%	6	30.0%	0	0.0%	14	70.0%	2.67	1.33	1.33	
Whatcom	16	2	88.9%	11	6	64.7%	0	0.0%	0	0.0%	15	100.0%				
Total In Person	107	10	91.5%	86	27	76.1%	16	14.4%	1	0.9%	94	84.7%	2.71	1.59	1.12	
Online	0	0		0	0		0		0		0					
Grand Total	107	10	91.5%	86	27	76.1%	16	14.4%	1	0.9%	94	84.7%	2.71	1.59	1.12	

Forest Owners' Winter School One-year follow-up survey results

Winter school participation and survey response summary

Field Day Location	Number of Events Held	Total Registrations (families/groups)	Total Individual Attendees	Properties Represented	Acres Represented	Number Surveyed	Responses (n)	Survey response rate	% of Original
King	2	146	228	124	8,000	103	80	77.7%	54.8%
Online	0								
Grand Total	2	146	228	124	8,000	103	80	77.7%	54.8%

Behavior and attitude changes

Field Day	Implemented New Practices			Increased enjoyment of forest			Increased understanding of ecological importance of forest			Increased likelihood of retaining forest as forest		
	Yes	No	% Yes	Yes	No	% Yes	Yes	No	% Yes	Yes	No	% Yes
King	60	7	89.6%	64	3	95.5%	68	1	98.6%	58	7	89.2%
Online	0	0		0	0		0	0		0	0	
Grand Total	60	7	89.6%	64	3	95.5%	68	1	98.6%	58	7	89.2%



WASHINGTON STATE UNIVERSITY
EXTENSION

Summary of stewardship activities implemented by participants using winter school knowledge

Winter School Location	PCT (ac)	Comm. Thin	Harvest (ac)	Planting (ac)	Invasive Weed Control (ac)	Veg. Control (ac)	Pruning (ac)	Improve Habitat (ac)	ADC (ac)	Reduce Fire Risk (ac)
King	499	144	105	287	530	280	221	588	224	351
Grand Total	499	144	105	287	530	280	221	588	224	351

Other outcomes

Field Day	Gained tools needed for successful land			Gained tools to help others with successful land stewardship			Shared field day knowledge with others					Recommended field day to others		
	Yes	No	% Yes	Yes	No	% Yes	Yes	No	% Yes	Total people shared with	Average people shared with	Yes	No	% Yes
King	66	2	97.1%	51	18	73.9%	65	8	89.0%	322	5.2	64	11	85.3%
Online	0	0		0	0		0	0				0	0	
Grand Total	66	2	97.1%	51	18	73.9%	65	8	89.0%	322	5.2	64	11	85.3%