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## WSU Extension Puget Sound Forest Stewardship E-Newsletter Large Print Edition

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#### Forester's Notes

The year is beginning to wind down. Our fall Coached Planning class wraps up next week, along with our last two topical workshops of the year. This year has been particularly productive, with expanded county coverage, new program initiatives, new publications, and more workshops and field tours than I believe we've ever done in any given year (all of which have been well-attended, if not sold-out).

Things have been equally productive behind the scenes, as we have been working diligently all year on developing new programs, curriculum, and learning opportunities that will take us well into the future. You will start seeing some of the fruits of those labors very soon in the form of new publications and classes for 2012. I am really looking forward to showing you what we have been working on. In the meantime, we have some things for you to enjoy now–read on for details.

Kevin W. Zobrist WSU Area Extension Educator, Forest Stewardship Serving Snohomish, Skagit, King, and Island Counties

P.S. Happy Veterans Day and my sincere thanks to all of the veterans reading this, as well as your families who shared in your service and sacrifice. Without you we would not have world class universities and the freedom to teach, learn, and explore.

#### **New Publications**

New WSU Extension Forestry publications don't come out very often, so it is particularly exciting to be able to announce four new offerings. These are all written for forest owners and those who work with forest owners, and they are based on some of the

most frequently asked questions that come up in the Extension Forestry program. I think you will find these useful and timely. These are all available for free download online, and we can also provide some limited hard copies for a nominal printing and postage fee (please contact me for details).

FS043E: Forestry Education and Assistance for Washington Forest Landowners

http://cru.cahe.wsu.edu/CEPublications/FS043E/FS043E.pdf

FS055E: Assessing Tree Health <a href="http://cru.cahe.wsu.edu/CEPublications/FS055E/FS055E.pdf">http://cru.cahe.wsu.edu/CEPublications/FS055E/FS055E.pdf</a>

FS056E: Seasonal Foliage Loss in Pacific Northwest Conifer Trees <a href="http://cru.cahe.wsu.edu/CEPublications/FS056E/FS056E.pdf">http://cru.cahe.wsu.edu/CEPublications/FS056E/FS056E.pdf</a>

FS057E: Recognizing Sapsucker Damage to Your Trees <a href="http://cru.cahe.wsu.edu/CEPublications/FS057E/FS057E.pdf">http://cru.cahe.wsu.edu/CEPublications/FS057E/FS057E.pdf</a>

## Wind Damage Workshop

November is here. This means it's time for our annual parade of late fall storms, some of which can pack some powerful and destructive winds. We are offering a workshop for woodland owners on how to reduce the risk of wind damage to trees and properly clean-up tree damage after a storm to prevent further problems.

The workshop will be held from 6:00 pm to 9:00 pm on Wednesday, November 16th at the Pacific Rim Institute near Coupeville on Whidbey Island. Topics covered will include trees and power lines, management techniques for wind-firm forests, forest health issues with wind, and how to properly care for trees both before and after the storm. The workshop will be taught by

experts from WSU Extension, the Washington Department of Natural Resources, and Puget Sound Energy.

Cost is \$20 per person or \$25 per couple. Registration information is available at <a href="http://snohomish.wsu.edu/forestry/wind11.htm">http://snohomish.wsu.edu/forestry/wind11.htm</a> or by calling 425-357-6017. Space is limited, and pre-registration is requested.

## Shiitake Mushroom Culture Workshop

Our Shiitake Mushroom Culture workshop coming up on November 19th in Mount Vernon has sold out. Unfortunately, we will not be having a waiting list for this.

However, this same workshop is being offered over in Kitsap County on December 3rd in Silverdale, and they invite anyone who missed getting into the Mount Vernon class to hop on the ferry and come on over. I recommend getting signed up with them quickly, though, as they will likely sell out as well. Visit <a href="http://county.wsu.edu/kitsap/">http://county.wsu.edu/kitsap/</a> or call 360-337-7157 for information and registration.

## Forest Stewardship Coached Planning

Our flagship and most popular and powerful program is coming to Whidbey Island in January. This 10-session practical, hands-on course will guide you through the development of your own stewardship plan with "coaching" from the top natural resource professionals in the state. In the process of creating a forest plan unique to your property and objectives, you'll go in depth with us both in the classroom and in the field covering a wide range of forestry topics. Things we'll cover in detail include ecology, silvics,

soils, wildlife, forest health, fire, applied silviculture, water resources, aesthetics, regulations, special forest products, working with contractors, and more. The class includes nine evening classroom sessions, a Saturday field trip, a personal site visit to your property from a professional forester and/or wildlife biologist, and a forest stewardship notebook packed with information.

Your completed forest stewardship plan may qualify you for significant property tax reductions, as well as qualify you for a whole range of cost share and other assistance programs. It will also provide you with a road map for maximizing your enjoyment of your land and minimizing the costs of ownership. The class is open to all, regardless of how many acres you own or what your ownership objectives are. Space is limited, and registration is open for both classes:

The class will be on Wednesday evenings starting January 18th at the Pacific Rim Institute near Coupeville. Registration is open and the class is already beginning to fill. Details and registration information are available at

http://snohomish.wsu.edu/forestry/CP12Coupeville.htm or by calling 425-357-6017. This class is made possible in part by a grant from the Whidbey Island Conservation District.

#### 2012 Native Plant Sales

Mark your calendars for the 2012 native tree and plant sales offered by local conservation districts. This is one of the best sources of native trees and understory plants.

Snohomish/Camano: March 2 & 3, 2012 Pre-Order 12/5/2011 – 2/8/2012

#### http://snohomishcd.org/plant-sale 425-335-5634, ext 110

Skagit: TBD

King:
March 2 & 3, 2012
Pre-Order by 1/27/2012
<a href="http://www.kingcd.org/pro">http://www.kingcd.org/pro</a> native.htm
425-282-1912

Whidbey Island:
March 2 and 3, 2012
Pre-Order 11/15/2011 – 1/30/2012
<a href="http://whidbeycd.org/plantsale.aspx">http://whidbeycd.org/plantsale.aspx</a>
360-678-4708

## **Market Update**

Here is the latest news on log prices in the Puget Sound area based on data provided by our friends at DNR in their monthly Timber Sale Query reports.

Log prices in general have climbed since mid-year. Douglas-fir has climbed to \$535, while red alder has been between \$600 and \$700, and maple has been over \$400. These are the strongest alder and maple prices in at least two years. Cedar has been somewhat volatile and has declined from its sharp price spike in the spring, fetching an average of \$863 in October for camprun.

For an updated price graph, please visit <a href="http://snohomish.wsu.edu/forestry/documents/LogPrices.pdf">http://snohomish.wsu.edu/forestry/documents/LogPrices.pdf</a>

# Focus On: Carbon sequestration and forest management

This is the second of a four-part discussion on forestry and carbon. Last time I talked about the fundamentals—the basic chemistry and biology of carbon sequestration and release. If you missed this first part, it is available from the newsletter archive at <a href="http://snohomish.wsu.edu/forestry/documents/Newsletter 04 04.pdf">http://snohomish.wsu.edu/forestry/documents/Newsletter 04 04.pdf</a>.

In this issue, I'll address how these principles relate to forest management. This comes with the same disclaimer that my comments are a perspective for discussion and not peer-reviewed science, and I invite you to research these issues further on your own.

A question that is the subject of significant debate in science and policy arenas is, what overall forest management strategy will maximize carbon sequestration? Two strikingly divergent general positions have emerged:

- 1. Leaving forests intact with minimal or no harvest will maximize carbon sequestration.
- 2. Intensive forest management with an emphasis on harvesting to produce wood products will maximize carbon sequestration.

Both of these positions are backed by credible scientists at major universities with reams of data and have been the subject of recent, conflicting, and high-profile reports. How is this possible? Various conspiracy theories get tossed around in the political rhetoric around this topic, but I think the answer is much less

nefarious and lies in different assumptions and angles of view. In short, I think both positions are correct, both have value for consideration, and both may be largely irrelevant if we're not careful.

At its most basic, the argument for leaving a forest intact to grow is that the forest will continue to sequester carbon from the atmosphere and store it not only in the biomass of living trees but in the soil and biomass on the forest floor. Harvesting the forest will cause a net loss in carbon sequestered, as there will be residuals such as slash and sawdust that will decompose quickly rather than becoming part of long-lived wood products, there are emissions involved in the machinery used to harvest and process the wood, and the resulting soil disturbance will cause rapid decomposition and carbon release. The argument is that these factors, coupled with the finite life-span of even long-lived wood products, results in greater carbon release than can be sequestered by the subsequent growth of a newly replanted forest.

In contrast, the argument for intensive management is that by converting older trees that have slowed down in growth to long-lived wood products, you have transferred the bulk of the sequestered carbon from one pool (forest) to another (products) and re-planted young, faster-growing trees that will rapidly sequester new carbon while the previously-created products are still in service and storing carbon. This is a "have your cake and eat it too" type of scenario. It is further argued that proper forest practices will minimize any carbon release from soil disturbance.

Different models can show either one of these management approaches to be superior under the right conditions and assumptions. One further aspect that can give intensive management a distinct advantage, though, is the idea of displacement and substitution. Displacement is where woody residuals (sawdust, chips, slash, etc.) are burned for energy, thus

displacing fossil fuels that would otherwise be used. Substitution is where wood product availability allows wood to be *substituted* for carbon emission-intensive products that would otherwise be used such as steel or concrete. Thus, maximizing wood product production maximizes avoided emissions from the manufacture of steel and concrete.

Should all of our forests be converted to fast-growing plantations? I don't think so, because there are a lot of other values wrapped up in forests beyond carbon sequestration, including wildlife habitat, water quality, aesthetics and recreation, etc. In fact, I suspect that when these issues are argued in the sociopolitical arena, that it is sometimes these other values at play more so than carbon sequestration. In other words, because carbon and climate are the in-vogue topics right now, various competing interests try to adapt a particular carbon model output to support an agenda that's ultimately driven by different values entirely.

So what are we to conclude? I think that the idea of an "optimal" forest management approach for carbon sequestration is the wrong way to approach the issue in the first place because it depends on so many variables (type of forest, harvesting techniques, product markets, rate of substitution, etc.) and because there are so many other forest values to consider.

It also misses the big picture. Whether managed for intensive timber production, preservation, or something in between, simply having land in forest use is a huge positive for carbon sequestration and climate change mitigation, and permanently losing forest land to development (or in the case of tropical rainforests, clearing and burning) is a huge loss. I think that this is where our efforts should focus, and everything else is splitting hairs.

To wrap up, here are six guiding principles that I propose when it comes to forest management and carbon sequestration:

- 1. Maintain (or add to) land in forest use. If we lose our forest base, the game is over and any question of management is moot.
- 2. Old-growth forests should be left intact because of their huge biomass (i.e. carbon) accumulations as well as the many other social and environmental values they embody.
- 3. Best practices should be used when harvesting timber to minimize soil disturbance (not to mention impacts to biodiversity and water quality).
- 4. Production and use of wood products should be strongly encouraged. If we save one ton of forest carbon only to pump out three tons of fossil fuel-based carbon emissions to use steel or concrete instead, we are being counter-productive.
- 5. Fuel-reduction treatments in overstocked, fire-prone forests should be strongly encouraged. Fire regimes in the inland west are way out of balance. Thinning out smaller trees greatly reduces the risk of the larger remaining trees being consumed by a catastrophic fire, and the removed material can be used for products or burned in a controlled manner for energy rather than being subject to an uncontrolled (and unutilized) release via wildfire. Fuel treatments also restore habitat and contribute to other forest values.
- 6. Finally, remember that the forest is not enough. While forest management can play an important role in climate change mitigation, it is not going to solve the problem by itself—fossil fuel emissions and other factors have to be addressed.

#### **Tidbits**

- Are you ready for a wildfire? Check out this information from the Snohomish Conservation District: <a href="http://snohomishcd.org/firewise">http://snohomishcd.org/firewise</a>. Also check out this news article:</a>
   <a href="http://www.komonews.com/news/local/130067468.html">http://www.komonews.com/news/local/130067468.html</a> and the powerful images in this Forest Service report:</a>
   <a href="http://www.fs.usda.gov/Internet/FSE\_DOCUMENTS/stelprdb">http://www.fs.usda.gov/Internet/FSE\_DOCUMENTS/stelprdb</a>
   <a href="http://salagov/Internet/FSE\_DOCUMENTS/stelprdb">http://www.fs.usda.gov/Internet/FSE\_DOCUMENTS/stelprdb</a>
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- A new Forest Service report has been released on the environmental benefits of using wood and wood products in green building: <a href="http://www.fs.fed.us/news/2011/releases/09/green-building-report.pdf">http://www.fs.fed.us/news/2011/releases/09/green-building-report.pdf</a>
- The 2011 Tax Tips for Forest Landowners are now available: <a href="http://www.fs.fed.us/spf/coop/library/taxtips2011.pdf">http://www.fs.fed.us/spf/coop/library/taxtips2011.pdf</a>
- Did you know that streetlights affect fall leaf color change on nearby trees? Check out this article by WSU Extension horticulturist Linda Chalker-Scott: <a href="http://www.puyallup.wsu.edu/~linda%20chalker-scott/Horticultural%20Myths">http://www.puyallup.wsu.edu/~linda%20chalker-scott/Horticultural%20Myths</a> files/Myths/Light%20pollution .pdf

#### **Contact Info:**

Kevin W. Zobrist
Area Extension Educator, Forest Stewardship
Washington State University
600 128th St SE
Everett, WA 98208-6353
425-357-6017
kzobrist@wsu.edu
http://snohomish.wsu.edu/forestry/
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