Stewardship Stories: Reclaiming a Golf Course at Miller Tree Farm

Ken and Bonnie Miller are a fixture of sorts in the small forest owner community of Washington. They've been active in the Washington Farm Forestry Association for years, have hosted multiple WSU Extension events, and Ken is an active advocate for small forest owners in state natural resource policy. This passion for private forestry started back in 1989 when they bought their first tree farm, a 30-acre recently clear-cut parcel in Grays Harbor County that they re-planted and managed with the help of their children.

A few years later in 1993 they bought another clear-cut parcel in Thurston County wedged between Millersylvania State Park, Scott Lake, a golf course, and a growing residential neighborhood. This one was 40 acres and came with a house, so they moved in and got to work replanting there too and have been managing both properties ever since.

Years later, in 2017, an opportunity came up to buy the long-abandoned "back nine" of the adjacent golf course. With plenty of planting and stand management experience under his belt, Ken didn't hesitate. It provided a second access driveway for their house but also a familiar challenge, starting a forest.

Watch a video of their property

Only this scenario was a little different. Instead of being recently clear-cut the property had been unmanaged for decades. At the time of purchase the property was roughly 56 acres of reed canary grass, brush, thickets of red alder and Oregon ash, bigleaf maple and the occasional tall Douglas-fir. In that same year, he harvested what was there in order to start over from scratch. A freshly clear-cut

The "back nine" parcel (to the left) adjacent to the Scott Lake Golf Course (to the right) and the Scott Lake neighborhood (to the back of the photo) (Photo: Patrick Shults, WSU)

patch of ground is not an uncomfortable scene for Ken, having done this before, but some fresh challenges awaited.

It has been a living lesson on the precarious nature of microsites and the impacts even small changes in topography can have on species selection and seedling survival. Close to twenty acres of the parcel are low-lying and flooded throughout the winter. Working through the NRCS Conservation Stewardship Program, Ken receives payments to control the reed canary grass that has taken over these areas to create habitat for Oregon spotted frog, a threatened species.

Elsewhere, except for an occasional remaining lodgepole pine, Douglas-fir, and some larger patches of Oregon ash, the remaining acreage of the property appears treeless at first glance. However, as you look closer you quickly see that wherever a tree can be planted there is one. All evidence of the last three years of hard work in which Ken has planted over 14,000 trees to reforest, and in many areas afforest, the old golf course.

"Everything about this property is hard, it's tough ground for planting," Ken says looking over his field of seedlings.

Directly adjacent to the seasonally flooded areas Ken has experimented with a variety of species that might enjoy a higher water table: western redcedar, Willamette Ponderosa pine, and Sitka spruce are mixed in an attempt to see what can survive. This has been one of the most challenging parts of the property, requiring some level of re-planting every year, but he found that the Ponderosa pine and spruce are the best candidates for success so far.

Ken's "daily haul" of golf balls. A perk of being a tree farmer next to a golf course. (Photo: Patrick Shults)

As you move away from the lake, you start to see where Ken has had more widespread success. Several acres are planted with western redcedar, all 3-4 feet tall now, lush green, and just a couple years away from being free from the pressures of deer browse and competing vegetation. In some of the drier areas a healthy crop of Douglas-fir has taken hold and put on good growth. Elsewhere, you'll see rows of Sitka spruce and western white pines that are also clearly happy to be there.

Still even in the upland areas there are hidden challenges. The property is scarred by the development of the golf course, which left many areas with little or no topsoil to sustain trees. These sites are difficult to spot beforehand but can be easily identified now that they're dotted with dead or dying seedlings.

“These sites may never grow anything but I’m going to keep trying for a while,” says Ken pointing at a row of struggling trees.

As if the difficulties of the site weren’t enough, Ken has had to deal with an onslaught of biotic challenges. Weeds like reed canary grass, Scotch broom, and blackberry have required regular maintenance to give trees the best possible chance at survival. In 2019, he was faced with a spontaneous mid-summer teasel outbreak that he had to beat back by hand with a machete. Given the scale of the project, herbicides have been critical to tree survival. However, Ken will be the first to express the importance of using them carefully, having accidentally burned a handful of his trees by accident.

“I spent a lot of time trying to figure out why the tops of these trees were looking scorched; it was heartbreaking to find out I was the reason.”

The challenges do not stop with weeds. As any forest owner that has planted trees can attest, “if you plant them, they will come”. Up until recently, the primary tree chewers have been black-tailed deer enjoying his western redcedar seedlings. Well-maintained Vexar tubes have been able to mitigate the bulk of this damage but in the last year Ken has faced a new pest: field mice.

They’ve done a lot more damage than the deer, killing nearly every seedling they’re able to chew on. Ken has taken a multi-faceted approach to dealing with the mice. He’s bolstered his vegetation management in the most affected areas so mice don’t have a place to hide, retained remnant older trees to serve as perches for predatory birds, and even gone as far as wrapping the base of several hundred trees with tinfoil to discourage the chewing. This seems to be working but the damage done will require another year of spot-filling with new trees this spring.

See a 360 degree view of the plantation

In all of this, the excessively hot and dry summers the region has experienced in the last decade have not been avoided on the Miller Tree Farm. Late in the summer of 2018, southwest Washington had the worst drought conditions in the state and many of Ken’s trees paid the price.

“I even tried coming out here and watering some of these trees when it got really bad, but it was too little, too late,” said Ken thinking of the trees he lost in the drought. “I first planted this property in the winter of 2018 and I’ve had to re-plant a good deal of them for one reason or another in both planting seasons since then.”

When you ask Ken about this project, he’ll probably talk about all his “failures” first, but don’t take it at face value. This piece of land is well on its way from an abandoned golf course to being a productive working forest.

“I think talking about these failures is important. Being a tree farmer requires a lot of failure and other people need to see that it’s not just them”

Ken and Bonnie Miller in front of their sustainable forestry information kiosk. (Photo: Patrick Shults)

Still, I doubt anyone would think of it as a failure were they to walk through it, and many do. Ken and Bonnie have invited people from the neighborhood to use the property for walking, accessing the state park, and even have a list of ATV riders they allow to use the trails, provided they don't do any damage and report any littering or vandalism they see. Ken is working on building more trails and has even constructed information kiosks to teach people about the importance of small forest owners and sustainable forestry.

The new "back nine" forest will provide an array of benefits to the neighborhood, local wildlife, and the land itself, while serving as a legacy for the hard work of the Miller family. Ken knows he'll never harvest a tree from this parcel himself but highly values the thought of passing it on to his children, who will have to decide for themselves how they want to manage it.

***Patrick Shults**, Extension Forester, Washington State University, patrick.shults@wsu.edu*

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