CAPTURING VALUES FROM YOUR PROPERTY

Capturing Forest Values Cooperatively

Rural Energy Programs

Nontimber Forest Products

Future Log Markets

Conservation Easements

Carbon Market Opportunities

NEXT ISSUE . . .

Water and Riparian Management

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A harvester picks wild huckleberries, which can be sold to gourmet restaurants.
Inset photos: Close up of wild huckleberries, which are delicious and fun to pick, and can be profitable. Douglas-fir tips can make a delicious tea. Photos courtesy of Eric T. Jones

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Other than general editing, the articles appearing in this publication have not been peer reviewed for technical accuracy. The individual authors are primarily responsible for the content and opinions expressed herein.
I view our tree farm as having both tangible (logs, firewood) values and intangible (beauty, serenity, solitude) values, as I’m sure most Northwest Woodlands readers do as well. For the sake of brevity, I’m going to focus here on just the tangibles.

I was out falling dead grand fir on Sunday, trying to keep up once again with the mortality on our tree farm. Grand fir of all size classes is having a rough time in north Idaho; primarily the result of the *Scolytus* beetle infestation. I can’t skid logs at this time of year (I am writing this near the end of February), but I like to get the dying/dead trees down on the ground and preferably into the snow. This way they keep better until skidding occurs.

I find it very relaxing to work in the woods but am somewhat annoyed that I’m harvesting nice trees when the log market is so poor. My wife and I have owned our forestland since 1988 so we have had several “high market” opportunities in which to harvest. Being a forester by trade, I know that grand fir is an unpredictable, weak species and it really should be depleted from our forest. It’s more prudent to grow western larch or white pine. But like many landowners, I’ve always thought that log prices would trend upward and that a market would always exist for all of our species. The past two years have been yet another good reminder that log and lumber markets can change drastically and quickly.

When contemplating value from our forest, I’ve really lost on three different fronts. First, I’m selling our trees today at a price that is 30 percent below a long term, normal price. To compound this, in Idaho, our market base has diminished. With the closure of four manufacturing plants in our working circle over the past 15 years, we now have just three remaining. These mills are highly specialized and take only certain log species and sizes. Harvesting a greater volume in 1996 and 2005 when we had strong log prices and a more diverse log market obviously would have been the better strategy. Second, I’ve squandered future value by ignoring the time-value concept of money. The proceeds from any harvest during those “high market” years could have been invested for many years, and hopefully earned a positive return. Third, and probably our biggest loss, is that of future growth of more desirable, more valuable trees. In our case, a percentage of our tree farm is comprised of stagnated, defective timber. Banking these trees on the stump now makes little sense especially when I’m forced to salvage during poor markets. During normal markets I prefer to clearcut these stands and then reforest with primarily western larch. The result of our past clearcutting has produced several vigorous plantations that are adding growth at a phenomenal rate per year. Loss of growth is disturbing and equates to an unrealized value loss in the future. My regret is that I had not converted many more acres in the mid-1990s.

While I now have 20/20 vision, I should have taken the time years ago to assess the market opportunities along with the associated value gain or loss. In the future, I intend to not repeat my past inactions and poor judgment.

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Value Loss by Procrastination

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**Capturing Value is a Frame of Mind**

My first thoughts about capturing value from our property were of the monetary return available from forest use activities. In our case it’s enhancing the timber value through good management practices and harvesting of floral greens. Some WFFA members use a portion of their holdings to also raise Christmas trees for an annual return. The potential goes well beyond the aforementioned and includes everything from trout ponds, pumpkin patches, cell towers, and borrow pits. That having been said, for many of us the intrinsic values from our property are a very important aspect.

Our tree farms are an integral part of our psyche. Our mental and physical health revolves around our land as it has been for generations long before ours. Unfortunately, most people in our society have evolved away from this particular connection to the land and see landowners as a greedy sort. The Russian author of “War and Peace”—Tolstoy—said that ownership of land is theft. Tolstoy may have been a great writer, but these are different times and the great American experiment has proved him wrong.

The indigenous peoples of the Americas who have roamed this land in excess of 15,000 years know well that connection between their spiritual well being and the need to use nature’s resources to survive. The difference for us in a supposed civilized society is that we codify certain aspects of our connection to the land. And fortunately this provides us assurances that we as forestland owners can endure.

The great value that my wife and I capture from our property includes in part this connection to the land. It is our sanctuary with its clean and clear air that we breathe deeply when we are at our work in the garden or cutting firewood, which provide us life. We cherish that great solitude when in the cool fall air we pause from our chores when we hear a flock of sandhill cranes and watch them pass overhead in their V formation headed south to their wintering grounds, knowing that they have come from far away in the north on their mighty epic journey. We return back to our toil with renewed inspiration and a feeling of fulfillment in what we do on the land. Then a raven will call out, his voice echoing through the trees stirring yet again some memory of ancient times. The inner peace and the tranquility for us on this property cannot be measured. We escape the world’s problems and feel a sense of calm and contentment.

Also is the feeling that a tree farm brings a level of independence not enjoyed in the employ of others. How aggressively one may manage is a personal decision and not the result of outside influences. Being able to operate within one’s so-called comfort zone has value. We have come to find that the infamous clearcut is truly a regeneration harvest and that renewal brings us satisfaction as well.
Value Added, or Right There All Along?

Value added means there is some extra, additional benefit that one receives from owning woodlands. That could mean extra income from firewood, Christmas boughs and trees, mushrooms, floral greens and moss...I’ll stop with those, because that’s the focus of this Northwest Woodlands issue.

Whether you live on your forested property or in town, perhaps especially if you live in town, an additional value you might appreciate is the peace and quiet that nature provides. Minus the city street lights, you can actually see stars at night. And there are no noisy neighbors having loud parties, just you and the animals living together somewhat harmoniously!

It’s hard for me and my husband to drive to the woods without some kind of chore in mind. There’s always something to do and never enough time or energy. Typically the car or pickup is loaded with tools we need or might need since a trip home would be counter-productive. So we’ve found it hard to switch our mental set to appreciate the things we’re used to seeing every time. But as we observe our friends and relatives that look with different eyes at what we take for granted, we’re learning to appreciate it more.

This summer we hosted my Garden Club on the tree farm. Since there were no rare flowers to rave about, I prepared a short quiz for them—spiced with Goodwill-type prizes for correct answers. I started out with tree identification and everyone knew “Douglas-fir.” When asked which invasive species were most difficult to overcome, many answers were given, but “grass” was not one of them. The most telling question concerned the forest practices act. Everyone thought that only large industrial-type forests had to comply. This quiz started a great discussion. People were interested!

So, for us, added value comes from having a place where we can invite woodland-deprived friends to picnic, enjoy a campfire, or hike our roads and trails. Children can walk the roads and discover antlers, bones, and feathers. They can peek in the fir branches and see newly-hatched birds or abandoned nests, splash in the river or pond, and find all sorts of wiggly things. For adult friends, the forest is a place to relax and think, or not think at all, with a wren to serenade you. With all those trees, surely there’s a place for a hammock. After all, we’re making memories here.

Once you get past money, what more added value could you want?
Purchase Seedlings for Winter 2011/2012 Planting
- My recommendation is to order seedlings for next fall and winter now if you haven’t already.
- Many nurseries ran out of seedlings for planting winter 2010/2011 so seedlings may already be scarce as those who did not get seedlings for 2010/2011 are probably already in line ahead of you for this year’s crop.
- A good place to look for seedlings is our nursery advertisers in this publication and online at www.forestseedlingnetwork.com. Nurseries are already posting their available stock for 2011/2012.
- Remember, the seedlings you plant are a long-term investment and you need to start your investment with the right seedling. If you can’t find the right seedling this year wait until next year, and get your order in early.

Who Am I?
- I work from dusk to dawn.
- I hide and sleep when the sun is out.
- Women are more nervous around me than men, as I have this bad rap for getting caught in women’s hair. Don’t swat at me girls and I will not get caught in your hair.
- I eat and drink on the fly.
- I am active in the summer in the Northwest when my favorite invertebrates (bugs) are plentiful and hibernate or migrate in the winter.
- I do have functional eyes but use biological sonar to locate my prey.
- You can only speculate on why I roost upside down.
- My guano is prized as a fertilizer.
- I love mosquitoes and other yard and garden insect pests and may eat 200 each night.

Invasive Weed Refresher: Scotch Broom. Remember me? Not from around these parts, pretty yellow flowers in the spring, seeds that remain viable for 50 years or more, possibly no endearing qualities if found on your place. I was brought here originally for erosion control and as a yard plant. I have many “cousins” such as Portuguese and French broom, which have many of the same weed characteristics that I do. Your job is to keep me under control and possibly eradicate me from your forest or farm. You can get the best of me by:
- Pulling Me Out of the Ground: This can be done by hand if I am small and the soil is moist. Or with a tool called a Weed Wrench (www.weedwrench.com) if I am larger.
- Mowing: May take several mowings and best to mow me before I form mature seeds.
- Directed Foliar Spray: I do not like triclopyr, commonly sold as Garlon 4. A 1-1/2% solution of Garlon 4 with a 1/2 to 1% solution of vegetable oil surfactant in water cleans my clock. I am easy to find when I am starting to flower and I am less hardy as it takes a lot of energy to make those pretty yellow flowers.
- Cut Me Off at Ground Level: If I am a mature plant, I probably will not sprout. If you want to make sure I don’t sprout, or if I am a younger plant, apply 25% Garlon 4 (20% Garlon XRT) in water or oil carrier to the cambium layer of my cut surface.
- If I have produced seeds, you will need to keep an eye out for my offspring as some of my seeds are likely to germinate even if I am no longer around. If you keep shade on the ground, such as in a dense forest, I will not be able to germinate and grow.
- I love to travel and am a clever hitchhiker. So, you need to keep an eye out for me, particularly along public roads and your road system.

Fire Season is Here: Most of us will have fire season start in May or June. With typically more hot days occurring in May and erratic summer precipitation, fire season can grow longer even for wetter sites in northwest Oregon and western Washington. Here are a few things you could do to reduce fire danger and/or be prepared for quick response.
- Make sure your fire equipment is in good working order. Your best bet in preventing a large fire is to find it early, and keep it small, until help arrives.
- Acquire fire equipment for quick response if you don’t have any. Your local forest fire protection agency has a list of required equipment to run an operation during fire season and this might be a
good place to look to see what you might want to acquire. Used equipment is cheaper after fire season than just before fire season.

☐ Make sure your power saw spark arrestor screen is functional.

☐ Have your fire extinguishers recharged and checked out. The contents can settle to the bottom of the extinguisher and will not help you extinguish a fire.

☐ Make sure you have at least one operating fire extinguisher in each of your vehicles, on each piece of equipment and on you when you operate a power saw, lawn mower, weed whacker, etc.

☐ Operate equipment in compliance with the fire regulations that apply to your forest property. Apply these regulations to your home site if it is on or adjacent to your forestland, even if it technically falls under another fire protection jurisdiction which is less restrictive. So, don’t mow your lawn or driveway or around your seedlings in the heat of the day when a logging operation in your forest would be shut down.

☐ Beware of ATV riders during hot dry weather. They can easily start fires.

☐ Build a pond for a pump chance and/or access by a helicopter to dip water.

☐ Construct and/or maintain fire breaks along public roads which abut and/or pass through your property.

☐ Prune trees around structures to remove the fire ladder and reduce the chance of fire getting into the tree crowns.

☐ Cure your firewood away from your dwelling and outbuildings during fire season. Move it close to your place of use after fire season is over.

What is Your Treasure? As they say, one person’s junk is another’s treasure. This is true somewhat of the values woodland owners have for various parts of their woodlands. While some are pretty focused on earning income from timber, another’s treasure might be in taking a hike on a summer day, or sharing the joy of catching a fish from their stream with a grandchild. Capturing value from your land is the subject for this issue. I suspect it means something different for everyone of you. Find what you treasure on your woodland and enjoy what you have!

Who Am I?

A Bat.

I am easiest to watch around dusk as I come out before it is dark and can be seen against the sky. I need water to survive and might be more plentiful around lakes and streams. Leave the porch light on and you may be able to watch me catch bugs drawn to your light.

Down on the Tree Farm is edited by David Bateman, with help from Linn County Small Woodlands members. This column is a project of the Linn County Small Woodlands Association and the OSU Extension Master Woodland Managers. Suggestions always welcome; send to Dave Bateman at knothead@smt-net.com.
Capturing Value from Your Property

By TED LORENSEN

The OSU College of Forestry's Dean was recently interviewing a prospective student. “Why have you chosen this career?” he asked. “I dream of making a million dollars in tree farming, like my father,” the student replied. “Your father made a million dollars in tree farming?” echoed the impressed dean. “No,” replied the applicant, “but he always dreamed of it.”

While this joke doesn’t necessarily reflect the ambition of most forest landowners, capturing “value” from forestland remains important for woodland owners. However, valuation of forestland and forest uses is becoming much more complicated due to loss of mill infrastructure, land-use laws, forest practices regulation, site-specific environmental considerations, economic globalization, and greater recognition of forest resource values other than timber. And certainly many family forest landowners prize their lands for other-than-economic values.

Success in providing the forestland values that we want requires willing and able landowners. This is true for both public and private landowners. For landowners to be both willing and able, they must be able to capture value from their property. In order to sustain forestland conservation, forest uses must be more profitable to the owner than forestland conversion or other non-forest uses. Due to evolving government policies and changing market forces, the willingness and ability of both public and private landowners to sustain and invest in our forests has changed considerably over the years.

Four general strategies are available to create value for forest landowners.

1. Boost value of timber and fiber

The first of these strategies is to increase the market value of traditional forest products (mainly timber and wood fiber). Landowner investment and “sweat equity” remains the biggest contributor to this type of value.

Government policies and programs under this strategy have traditionally included: (1) cooperative research in silviculture, tree improvement, wood products development, and mill technology; (2) cost-share and technical assistance emphasizing timber production; and (3) shared investment for fire, insect, and disease protection. Forestry extension and forest agency foresters have been important in transferring technology and developing knowledgeable landowners that support increased timber values.

Forest landowner cooperatives are a non-government way used to increase the market value of traditional forest...
products. Cooperatives pool the resources of forest landowners to reduce costs and/or centralize marketing to seek the highest returns possible. Landowners also can increase value by finding niche or export markets or by producing higher value timber products such as poles. Bio-energy is an emerging market that may increase traditional forest value, particularly for lands within economic haul distance of bio-energy facilities.

2. Generate value for non-traditional forest products

The second of these strategies is to create or increase the value of non-traditional forest uses or products. Non-traditional forest products are biological or ecological and generally have not been cultivated. These products include edibles such as mushrooms and ginseng; floral products such as moss; and specialty wood products such as burls. These uses also include the value of forests in providing recreation and in protecting watersheds, wildlife, fisheries, and the storage of carbon in trees (ecosystem services). Markets for many forest uses, especially ecosystem services, are limited or absent. Where markets do exist for such values as recreation or fuel wood, the proximity of the forestland to large populations and/or limited access to the forestland is often an essential element for creating adequate economic value.

Recent policy work has focused on creating ecosystem service markets for carbon sequestration. One view of ecosystem service markets is that they should function as a mitigation bank for those that cannot meet regulatory standards, or as compensation for adverse impacts that cannot be avoided. This view creates a conundrum in that land uses or regions with existing high regulatory standards may receive less value or be less able to participate in such markets than those with lower regulatory standards. In any case, issues of valuation need to be addressed and payment schemes need to be developed to create functioning markets.

Wetland mitigation banks are an existing example of ecosystem markets operated in Oregon and Washington. The Willamette Partnership in Oregon is a diverse coalition of partners that is trying to develop a “fair and transparent system for people to buy and sell environmental restoration benefits.” Nationally, several efforts to develop markets for forest carbon sequestration are underway. Whether these markets become “real” for most landowners remains to be seen.

It is fair to say that the general public often takes the benefits provided by private forests for granted. Such forest values as clean water have been a bargain for downstream water users provided by upstream forestland owners.

An alternative approach to ecosystem service markets is to create value to a landowner through a concept I call “equitable benefit sharing” that recognizes a shared interest in the “public utilities” provided by forest landowners through a utility charge paid by the end user. One argument for this approach is that the public expects higher levels of environmental performance for forestlands than for other land uses, and this would provide a means to equalize those differences by providing landowner value. This concept also provides a means for end users to better mitigate the impacts of their use. For example, water users generally fully pay for their supply infrastructure, but more often than not only partially pay for the impacts of their water use. Indeed, where water use may be a factor in water quality-limited streams, such use is not considered in assigning the burdens to recover water quality. This approach could use an existing utility charge or a water supply system as

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Capturing Forest Values...Cooperatively!

By TOM NYGREN

Archimedes is famously reputed to have said something like, “Give me a place to stand, and I will move the world with a lever!” Forest landowners in the last two decades have felt like they had neither the place to stand nor the lever to improve the income stream from their forestlands; they often felt they were at the mercy of the ups and downs of the lumber markets. And not only were they subject to nationally and internationally controlled commodity prices, but they only got one return from their forestland after decades of growing their trees!

Is there a way for forestland owners to improve their lot? How can they not only acquire more “leverage” for their products, but also develop frequent and multiple income streams from their forestlands to pay taxes, protect their investments in roads, plantations, and other values, and perhaps even sock some dollars away for their future needs?

There is a forest owner cooperative in Oregon that has been working to create and perfect that desire. The Oregon Woodland Cooperative (Co-op), a member-driven registered corporation consisting of 60 forest landowners with over 20,000 acres of forestland, has one overarching goal: Members helping members and working together to increase the amount and frequency of values and services available. The Co-op is registered and incorporated under the laws of Oregon pertaining to cooperatives. Members are independent; their membership is not restrictive on their management options. Instead, their membership is opportunistic—members can participate to the extent they desire in a variety of timber and non-timber product enterprises and management services.

The Oregon Woodland Cooperative—originally chartered as the Oregon Woodland Management and Sales Cooperative—has been around since 1981. Its genesis was the dissatisfaction of a broad cross section of forest landowners in northwest Oregon with their perceived treatment by log buyers and mills. With large acreages of forestland in industry ownership—often by industries who also owned the lumber mills—small forest landowners felt they had no leverage in the marketplace, either in the prices they received for their logs or the access they had to sell when they wanted to. Industry lands were the “big dog” and small private forest landowners were the tail that got wagged!

The original purpose of the Co-op—more leverage—was not as successful in the early days as hoped. But the Co-op still served a useful purpose by offering professional forestry services through a forester. By the 1990s, however, the membership of the Co-op had started to change. Ownership had transferred to heirs, or through sale, and the few new members that joined often had smaller parcels than the original members. After the high log prices of the early ‘90s, many properties no longer had the standing inventory it once did (and therefore few prospects...
The bundled firewood and retail floral assessments. Especially notable were on-the-ground inventories and market needs—and the Co-op was not meeting them. The result was a decision to “re-invent” the Co-op to meet members’ needs and grow the Co-op so that it was viable in the changing times. A new vision was developed—one that focused on three cornerstones: Product Diversity, Production Efficiency, and Marketing Effectiveness.

**Product Diversity**

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<th>Now and in the Future</th>
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<td>Traditional &gt;&gt;&gt; Multiple &gt;&gt;&gt; Multiple</td>
<td>single product</td>
<td>added focus + value focus</td>
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**Production Efficiency**

Enlist and work with partners • Leverage member skills, equipment • Refine processes for cooperative work • Build on experience • Economies of scale

**Market Effectiveness**

High Quality Product • Reliable Delivery/Service • Credible Relationships

To help bootstrap this vision, the Co-op applied for and received a Value-Added Producer Grant (VAPG) through USDA Rural Development in 2005. The VAPG program provides agricultural operators, foresters, Co-ops, producer groups, and others with 50 percent matching grants for planning or working capital to advance value-added ventures. This first grant provided funding to prepare a solid business plan to guide the Co-op in new directions. A second VAPG was acquired in 2007 to develop the basis for business plan implementation.

With this grant, several new income opportunities were identified through on-the-ground inventories and market assessments. Especially notable were the bundled firewood and retail floral greens projects. We were also able to include some educational opportunities and marketing assistance for our members.

Reflecting members’ collective goals and interests, the business plan was built around a future of multiple forest product opportunities. With these more diverse product/income streams, innovative value-added marketing was called for, so the Co-op applied for a third VAPG. With this funding, the Co-op is helping members identify diverse new products, expand other product lines, and increase marketing opportunities through the Internet, niche retail markets, and other avenues. Though still being implemented, the Co-op now envisions the following product lines for members:

- **Timber**—logs, poles, pulp, and other timber products. There is still a need for members to produce and market traditional forest products. However, there is also an emphasis on getting “value-added” prices for these products through acquiring certified wood credentials, aggregating high-value wood for top-dollar markets, and other means.

- **Firewood**—both bundled and sold as value-added, and traditional bulk firewood. Markets that are willing to pay more for local wood from sustainable forestlands are aggressively pursued. Kindling bundles are also being marketed as an add-on product.

- **Floral greens**—high quality, retail-ready processed greenery of multiple species. In an effort to avoid the large wholesaler cut, the Co-op markets directly to retail florist markets, providing high-quality boughs and reliable service.

• **Essential oils**—distilled oils and related products from several conifer species. The Co-op is in the testing phase for these products—testing both the quality of the product and the markets available. Initial production for this purpose has proved exciting, as otherwise wasted needles of six different conifer species are used to create an aromatic product with many potential uses.

• **Medicinal plants**—Oregon grape, cascara, and others. The Co-op is currently testing production quality and efficiency of Oregon grape, with the help of Columbia Basin College. Amy Grotta of Oregon State University Extension leads the project and has been a key partner.

• **Special milling for craft materials**—partnering with a member to supply and process figured woods and other craft material for retail sale. As a by-product of timber harvest operations in the often mixed hardwood/Douglas-fir forests of northwest Oregon, woods with special character are often found—often known as fig—

—Continued on next page—
ured woods. These woods are highly sought by wood turners, furniture makers, and other craftsmen. The Co-op is exploring these markets.

- **Edible plants and fungi**—primarily Oregon truffles, both black and white, marketed directly to chefs with high quality standards, and to retail outlets. Value-added production of truffles, using trained dogs and adhering to strict culinary standards, the Co-op hopes to capture the value of these valuable components of young fir stands. Eric Jones of the Institute for Culture and Ecology has provided expertise and experience in getting the project started.

All of the product lines mentioned acquire their added value through specific production and marketing methods and standards. One method is having Co-op protocols developed from market research. Another is the use of a Co-op “brand” that signifies the Co-op’s standards of high quality product, reliable delivery, and sustainable production and harvest.

Co-op members are the heart and soul of the Co-op. The Co-op serves the members by providing them the means to realize their goals and objectives—at least in terms of the products they produce—and the organization and technical assistance they need. The basic tenet of the Co-op-member relationship is: “You produce and own the product from the woods to the market—the value-added chain. The Co-op helps you get the most income by providing services—all along that value-added chain.” The model for Co-op forest products is based on five basic principles:

1. **Ownership of the product remains with the member from the woods to the market.**

2. **Members are responsible for producing and distributing the product.**

3. **The Co-op will provide branding, quality standards, training, marketing services, and coordination necessary to get from the woods to the market.**

4. **Members help members succeed.** Much as the “barn raisings” of rural America a century ago, members pitch in to bundle firewood, cut boughs, and otherwise help each other harvest and process their products.

5. **The flow of dollars throughout the production-to-market process is normally handled by the Co-op to ensure that costs and income are accounted for and properly distributed.** The Co-op takes a small percentage based on product value and the role of the Co-op in the process.

**Local Wood Burns Better!**

By Tom Nygren

Neil Schroeder, president of the Oregon Woodland Cooperative, has been a leader in the Co-op’s bundled firewood program. Neil offers these thoughts about the growing success of the firewood program:

Young, fast-growing forests can be expensive to manage, especially at the stage before the first sawlog can be sold. If the young trees culled can provide some income, the tree farmer can at the very least pay for the costs of removing those trees and improving the health of the forest. Co-op members are converting these young culled trees, plus any wood that might sell for very low returns, into firewood. To reach a value that makes this activity pay a dividend, the wood is bundled and sold to grocery stores in the Portland Metropolitan area. Considerable thought went into the marketing of the wood. The following points were important to the success of the program:

- **Consistency in quality must be maintained by each producer, and all members must understand the firewood protocol.** To ensure this, annual workshops are conducted at a member’s tree farm to be sure bundles are the same size (+ or – a half inch of 16 inches), the wood is clean with very little bark, the wood is dried for a full season, the moisture content is 20 percent or less, production efficiencies are shared, and invoicing and payment procedures are understood.

- **Marketing and sales is done by designated individuals within the Co-op.** Five percent of total sales is kept by the Co-op for this service. The remaining 95 percent of total sale return goes back to the tree farmer.

- **Each part of the operation has a value.** If the wood is cut, seasoned, split, bundled and delivered by the landowner, maximum income is realized. If any segment of the process is handled by another, the cost is borne by the landowner.

- **Branding is very important.** We want the consumer to believe they are getting the best product on the market from the Oregon Woodland Cooperative. Therefore, each bundle of kindling and firewood carries our brand. The Co-op prints and provides the branding labels as part of their five percent fee. The tree farmer has the option of writing a story about their tree farm that is printed on the back of the label.

**Firewood and kindling (on top) bundles show the Oregon Woodland Co-op brand label.**
inventory and harvesting techniques, processing training, and advice.

- Marketing assistance—product presentation, Co-op market sources and contracts, brand recognition and reputation, distribution methods, and accounting system.

- Valuable relationships with other Co-op members, partners, service providers, vendors, and market sources.

In summary, the Co-op adds value for its members at every step of the value-added chain—from the forest to the marketplace!

Tom Nygren is a board member and past president of the Oregon Woodland Cooperative, Certified Forester, and a member of the Washington County Small Woodlands Association, in Hillsboro. He can be reached at 503-628-5472 or tnygren@juno.com. The Oregon Woodland Cooperative has a general website at www.orwoodlandcoop.com, and is developing a marketing website at www.oregonwoodlandcooperative.com.

Floral Greens

By Neil Schroeder

The Oregon Woodland Cooperative bough project was initiated by John and Carol Belton, a very innovative pair of landowners. They are always looking for ways to improve the income stream off their tree farm and have produced hemlock stair treads and salmon baking planks, sold plants from the forest, and work to add value with every operation. John and Carol approached several local florists in the Portland area and near their home in Seattle. The idea was to prepare floral boughs for holiday time at the size and length needed by the floral designer. The Beltons brought the idea to the Co-op soon after they joined and it has been a considerable success. The traditional method for selling floral greens has been for the landowner to sell to contractors at the stump; income has been in the neighborhood of 11 cents per pound. The Beltons felt value could be added by harvesting and selling high-quality boughs cut to the size the florist would use in a specific design. It works!

The Co-op organizes a crew in early November to harvest noble fir, western redcedar, incense cedar, white pine, Port Orford cedar and even arborvitae! The limbs are transported to a central location where the crew cuts to length, bags, and ships the product directly to the florist. The wholesaler is bypassed and members receive nearly 10 times the price per pound than if the boughs were sold at the stump. Our forests are improved, we have little damage, a sense of community is developed and maintained, and returns are rewarding.

Dollar returns to the producer vary by participation in each stage of the process. Growing the trees, cutting the limbs, transporting to the processing location, cutting to length, bagging and shipping are all considered when distributing the proceeds. A percentage is kept by the Co-op for marketing, shipping, labeling, and accounting. As we expand the sales of boughs, new members from the eastside will be recruited and new products such as cones, juniper and essential oils from conifers that produce the aroma of the holidays, will be incorporated into the product mix. Our market niche is maintained by the high qualities of freshness, carefully selected greenery, timely marketing and sales, and the strong community effort of the participating members.

Neil Schroeder is president of the Oregon Woodland Cooperative. He can be reached at 503-628-2344 or neilschroeder11@gmail.com.
The Rural Energy for America Program, REAP, offers grants and loan guarantees to rural small businesses, agricultural producers and forest landowners who plan and install energy efficiency measures and renewable energy systems to enhance their operations. The program is administered nationwide by Rural Development, an agency of the U.S. Department of Agriculture.

To date, forest owners in the Northwest have not taken full advantage of REAP, which has provided significant funding to a number of businesses, farms and ranches for feasibility studies, technical assistance, and project installation costs. Examples include wood-fed boilers, rooftop solar installations, small wind turbines and micro-hydro systems to help power the operations, and shops or outbuildings associated with a for-profit venture. With REAP, geothermal systems, anaerobic digesters, wave energy and even algae-to-power projects are also on the table. On the efficiency side, projects may include energy-saving lighting, heating upgrades and more. While REAP grants and guaranteed loans will not cover a project’s entire cost, they can make renewable energy and efficiency measures pencil out as a sustainable, money-saving option.

Owners of working forestlands are often eligible for REAP assistance through the following options:

- **REAP Feasibility Study Grants** offset the cost of a detailed, professional feasibility study. Assistance is limited to $50,000 or 25 percent of the cost of the study, whichever is less. Requests are evaluated and ranked for funding on a competitive basis, with consideration of the need, design, costs, benefits and other facets of the proposed projects.

- **REAP Renewable Energy Generation and Energy Efficiency Grants** can cover up to 25 percent of purchase and installation costs. There is a $500,000 per project grant limit; however, applications requesting $20,000 or less are more competitive in the application ranking process. A feasibility study is required to fund projects over $200,000. In this case, applicants may first apply for the feasibility study grant before pursuing funding for installation.

- The **REAP Guaranteed Loan** offers a 60 to 85 percent guarantee for loans ranging from $5,000 to $25 million. In this case, there must be a commercial lender willing to provide the loan, which is then guaranteed by USDA.

The energy produced by a REAP-funded project can be sold to the grid or used on-site, but it cannot be used to power a residence or other facility not associated with the business.
enterprise. Likewise, qualified efficiency measures must be installed on portions of the for-profit operation and not in homes. Other state and federal programs provide incentives for residential energy projects. REAP, however, was designed to assist rural businesses, including agricultural, forestry and fishing operations.

**Additional opportunities**

Forest landowners may also benefit from the **REAP Energy Audit/Renewable Energy Development Assistance Grant**, which offers up to $100,000 to entities that will, in turn, provide forest owners, rural businesses or producers with technical assistance or energy audits. In this case, the applicant must be a public body, university, publicly owned utility or electric coop.

In addition, REAP has funded feasibility study grants for energy generation projects that could, in the future, benefit forest landowners seeking biomass markets. One effort currently underway in northwest Oregon’s Columbia County will inventory the biomass and carbon stored on private forestlands. The information can later be used to advance local biomass energy generation projects, as well as provide the baseline information needed to tap into carbon credit markets. Another Oregon study funded by USDA Rural Development this year is looking at the feasibility of a 30-megawatt thermal gasification project that proposes to use wood chips in Umatilla County.

While these opportunities do not directly involve the individual forest landowner, they do show the potential for new prospects moving forward.

**Funding cycles and application process**

In fiscal year 2010, a combined $7.6 million in REAP loan guarantees and grants were awarded in Idaho, Montana, Oregon and Washington.

The next funding opportunity is expected to have been announced by USDA Rural Development by spring of this year. Applicants then have roughly two months to submit an application packet, which is detailed and project specific. As such, applicants should contact USDA Rural Development to learn more about eligibility and project considerations before beginning the process. It is also important to remember that USDA selects projects for funding on a competitive basis. Working with the agency as you plan your project and compile the application will increase your likelihood of success.

Another strategy is to limit the funding request to $20,000 or less. These projects may score higher in the evaluation process. Also, at the end of the federal fiscal year, program monies not used elsewhere across the country may become available, and smaller projects are good candidates for these leftover funds.

For more information, visit the Rural Development website for your state and contact a program specialist (see sidebar on page 14). ■

**Jill Rees** is USDA Rural Development Public Affairs specialist in Portland, Ore. She can be reached at 503-414-3302 or jill.rees@or.usda.gov.

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**Keys to Success**

- **Start early and keep in touch.** Begin working with your local USDA Rural Development specialist before you fully develop your project or begin the application. The program has specific eligibility, planning and environmental review requirements. It is also important to understand that demand for these programs has increased greatly in recent years, so consult with the agency to learn what makes an application most competitive. Also keep in mind that some Rural Development State Offices maintain lists of grant writers who can assist in developing REAP applications.

- **Grant funding is limited.** Requests for $20,000 or less are most successful. Also, you might consider the loan guarantee option, which offers excellent terms. Applicants may request a combination of grant and guaranteed loan assistance of up to 75 percent of the total project cost.

- **Identify additional funding.** REAP provides up to 25 percent of a project’s total cost. Those showing that the remaining 75 percent is readily available will score higher in the application evaluation process.
More and more small- to medium-sized private land-owners are venturing into the world of biodiversity set-asides, conservation easements and other conservation incentive programs, and managing their forests and farms for ecosystem services (e.g., biodiversity, clean water, cool streams) to earn extra income or tax breaks. What is less commonly known is that many could be earning additional income selling forest products, especially nontimber forest products harvested as a part of the management plan of their conservation area(s).

It's not uncommon for people to think conservation area implies unmanaged wilderness, but the reality is that most conservation goals require active management and sometimes quite a lot of disturbance and material removal over the course of time. Even when you have a formal legal arrangement such as a conservation easement you may be able to sell by-products from your management—it all depends on the specifics of the management activities you have agreed to in whatever conservation contract and management plan you have for your conservation areas. Even if you have an existing conservation arrangement (e.g., conservation easement, biodiversity set-aside), you may find that harvesting and selling materials from the area isn’t addressed or prohibited in your agreement. Of course, before you rush out and start digging those truffles it’s a good idea to discuss your ideas with any partners you have to get their support in helping you succeed.

Appropriate stewardship of your conservation area might include thinning of overly dense stands, removal of brush, burning, planting, seed collection, or other actions intended to improve and conserve biodiversity. If you begin to inventory the diversity of material by-products from management activities you will find a range of commercial and non-commercial uses.

For example, some material can be chipped, burned, or composted, and the nutrients can be strategically recycled back into the system where soil amendments are most needed. Though some wood by-products can be cut into firewood or milled into lumber for personal use or sold to market, many small landowners are not aware of or know how to take advantage of the many nontimber forest product (NTFP) material that can be salvaged and sold as well.

NTFPs, also called special forest products and nonwood forest products, generally refer to forest products other than industrial lumber and includes fauna like small game or insects. Examples of NTFP by-products for which there are markets include hundreds of native species commonly found in the Pacific Northwest: From berries and mushrooms for food, to salal and ferns for the floral industry, to cascara and skunk cabbage for medicinal product industries, to hundreds of native seeds and starts for nurseries, landscapers, and restoration businesses and agencies, chances are if it grows in your forest there is a market for it.

So how do you find out what nontimber forest products you have on your land? First, the bad news. Few timber cruisers, botanists or other experts typically involved in forest inventories on private lands can tell you what NTFPs you have, the quality the market demands, and how to manage and harvest them sustainably. The good news is that if you live in western Oregon or Washington you likely have hundreds of species with some sort of market, and even in eastern Oregon and Washington there still can be a lot of diversity of commercially viable species.

We suggest starting the inventory process yourself, even if you feel like a complete novice at inventorying. Walk your land, visually observe the ecosystem, and make a simple list of the various plants you see. If you don’t know the common and scientific names that’s okay, take a voucher specimen (i.e., sample) and a digital picture, note where samples were taken (take a GPS waypoint if you have the capability), and roughly estimate by low, medium, and high what the abundance and accessibility

By ERIC T. JONES AND TERRY ANTHONY

John Belton (right) explains how he and his wife Carol have managed for a variety of commercial nontimber forest products alongside timber on their property near Sandy, Ore.
is. Make notes about nearby vegetation, as this will be useful later when you need to make decisions about managing in a way that is compatible with the overall long-term health of the ecosystem.

Once you have this information about your species, you can add them to your inventory database. Keep your data in a field notebook. If you have a computer, enter information into a spreadsheet to make it easy to email to others for sharing and feedback. If you want to get fancy, free software like MapWindow can be used to visually present your data (ask your local Tree School organizers to offer a GIS mapping class).

Most small private landowners will likely have a diversity of commercially valuable species, but not an abundance of any individual species, nor the quality the market demands. However, once you find that a native species with market value occurs on your land (or that the species could be reintroduced), start looking for management guidelines and tools to help improve abundance and quality.

The free NTFP Information Exchange (www.ifcae.org/ntfp/) website is a good place to begin. There you will find a growing collection of Extension materials, business planning guides (see sidebar on page 18), how-to videos, links to online bibliographies, and a variety of other tools and services. You should also approach the various forestry, farm and soil conservation extension agents, watershed councils and land trusts with botanists, and nonprofits such as the Northwest Natural Resources Group, Oregon Woodland Cooperative, and The Nature Conservancy that are in your area. Of course, contacting and meeting so many groups takes time, but a simple email or letter stating your interest is a good way to begin filtering the ones that will likely be most receptive to helping you develop a conservation plan that includes active management for nontimber forest products.

To learn what quality NTFP markets demand and where you might eventually sell your products, contact buyers and sellers in databases like the nontimber forest products section of the Oregon Forest Products Industry Directory (www.orforestdirectory.com). If you look closely you will notice there are countless commodities and value-added wild products in a variety of common market places like grocery stores, nurseries, farmer’s markets, Amazon.com and eBay. For example, go to Google and search for Oregon wild wreaths; Flora Pacifica comes up, as does a Brookings, Ore., business that uses many wild species in their products.

Though written materials and online tools can help give you a base, ultimately if you are going to succeed at generating income from NTFP harvesting alongside your conservation plan includes active management for nontimber forest products.

–Continued on next page–

**Got Wild Forest Goods?**

Oregon Forest Industry Directory

A Free On-Line Business Directory

Now Including

Nontimber Forest Products

www.orforestdirectory.com

Nontimber Forest Products include mushrooms, mosses, berries, saps and resins, seeds, transplants, floral products, medicines and more.

The Oregon Forest Industry Directory is maintained and operated by Oregon State University. It networks businesses that buy and sell a variety of forest products and services. It lists over 1,400 businesses and receives 200,000+ hits per month.
tion program, you will have to become your own expert. You may find that taking some simple management actions can result in a sustainable yield, and for some species greatly increase productivity. For example, under the right habitat and climatic conditions morel mushrooms can produce prolifically the year after a fire and harvesting chanterelle mushrooms can stimulate increased productivity. Noble fir boughs can be regularly cut and sold to market every few years and the tree will thrive. Most species react

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**Nontimber Forest Product Business Guides for Woodland Owners**

By Eric T. Jones and Lita Buttolph

Have you been thinking of managing for or getting into commercial production of nontimber forest products (NTFPs) like huckleberries for food, ferns for transplants, cascara for medicinal supplements, or salal for floral decorations? The Pacific Northwest has been home to thousands of commercial NTFP businesses since the 19th century. Regional Indian tribes harvested and managed for many plant and animal species in the region for thousands of years. Some plants, like wild camas bulbs, were vital components of Native American economies and were traded along far-reaching networks. The Pacific Northwest is still an important place to find a diversity and abundance of commercially valuable NTFPs. Today thousands of harvesters and small businesses make part or all of their income from harvesting NTFPs. Just look around—the products are everywhere—from chanterelles in your local supermarket, moss in plant containers, elderberry in your herb tea, or devil’s club in your nutrition center.

Although state and federal public forests and timber company lands have been the biggest sources of NTFPs, small- to medium-sized private woodland owners have also been sources, though arguably these lands have been grossly underutilized. Researchers at the Institute for Culture and Ecology received a four-year grant from the USDA National Institute for Food and Agriculture in 2008 to help expand NTFP and related income opportunities on private forestlands in the Pacific Northwest. In the winter 2010 issue of *Northwest Woodlands* we reported on one key component of the grant: the expansion of NTFP businesses in the Oregon Forest Industry Directory at Oregon State University (www.orforestdirectory.com). This business-to-business directory has grown to become an important resource to connect buyers and sellers of a wide variety of forest products.

This sidebar presents another important resource being developed from our grant for private woodland owners: the creation of a series of business guides (or market analyses) on specific NTFPs. The initial six target products or product categories include huckleberries, native Oregon truffles, Oregon grape

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**Oregon white truffles can sell for over $20 per ounce retail.**

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favorably to particular kinds of disturbance, so done wisely, fire, pruning, thinning, digging, and other activities can help you achieve conservation objectives while simultaneously generating marketable products. A useful exercise you can begin yourself is to draft simple hypothetical active management scenarios that estimate commercial NTFP product yields and values, and then share those with extension agents and other experts for feedback, especially those that are already familiar with your land.

Like all business activities, labor is a key factor. If you are just starting out and/or have a small landholding that you just want to earn some extra income from, you may find that you and your family members are a sufficient labor pool. If you have a large landholding and want to realize more substantial income, you may need to hire a crew to help. Some businesses that specialize in nontimber forest product harvesting may be willing to manage your system for a fee or commission as a lease or under some other type of mutually beneficial arrangement. You may also find that there are opportunities to work cooperatively with other landowners to share the costs and benefits of hiring professional crews. For example, the Oregon Woodland Cooperative has an active nontimber forest product program they are developing for their membership. They are developing a strong brand name for quality, Northwest products. Organizations like the Northwest Natural Resource Group offer FSC certification, another means for adding value that can encompass both timber and nontimber products.

The Institute for Culture and Ecology, along with university Extension, businesses, like-minded nonprofits, government agencies and other partners help rural communities and landowners achieve sustainable livelihoods. As part of a grant from USDA National Institute for Food and Agriculture, we are interested in hearing from landowners, land trusts, and others that have working examples of biodiversity set-asides and other actively managed ecosystem service systems producing commercially marketed products. We are producing case studies and other materials to share across forest and agricultural landowner networks.

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We count trees, not beans.
Log Markets in the PNW: Past, Present and Future

By STEVE “TREEMAN” BOWERS

The first two tenses are easy, but that last one has induced our forest economists and “marketing specialists” into various levels of equivocation, prevarication and even bouts of consternation in their prognostications of future log values in the Pacific Northwest (PNW). But let us try. Woodland owners want to know the value of their trees today, what they might be worth tomorrow, and if there is anything they can do to alter the outcome. First, we need to understand the context of small woodland owners as they relate to log supply. In the early 1990s, the spotted owl came to the forefront, and by 1995 federal timber harvest levels had declined approximately 90 percent from their historic highs. This harvest level continues today with much of the log supply amended by private industry. Woodland owners constitute between 5 and 10 percent of the total harvest in Oregon, and these percentages are relatively equal for all woodland owners in the PNW. Within this context are two important factors.

First, because woodland owners comprise such a small percentage, market share does not allow for negotiation: they are price takers. When the local log buyer quotes a price, there is very little room for improvement. Detail to log aesthetics, desired exterior characteristics, log volumes and dimensions (typically, more and longer is better), and a perceived knowledge that the seller is knowledgeable as to what they have to offer may result in a slight improvement in price. Second, we see a trend toward the mill infrastructure owning more of the resource. Industry supplies the vast percentage of raw material and their facilities are constructed to optimize efficiency by gearing those mills to utilize their own logs. If woodland owners want to “fit-in” with this production scheme and procure the best possible price for their logs, might they need to emulate industry management regimes?

Does this mean woodland owners must “…do as the Romans do?” Not necessarily. There is a trend within sawmills regarding species and their physical dimensions as each mill is now accepting a narrower range of tree species with more stringent diameter requirements. This does not mean there are not markets for large logs, an over-exaggerated and incorrect assertion, and merely that for a woodland owner to procure the best possible price requires matching the unique characteristics of their timber stand to the requirements of respective mills. Another factor involves the displacement of mills as closures over the past few years have been primarily in areas away from timber company land holdings and the intermountain regions where public sales comprised an even greater percentage of log supply.

All of the above factors lead to Douglas-fir retaining the title of “king of the woods” in terms of marketing potential, although some species have seen substantial increases in demand the past few years. In particular, demand and value of red alder and incense cedar have increased substantially over the past decade. Demand for incense cedar can be largely attributed to the increase in values of western redcedar in which log values outsized product returns and incense cedar’s ability to enter the product mix historically associated with redcedar. On the flip side, ponderosa pine, once the industry stalwart of the intermountain regions, has seen a severe decline in the infrastructure to process these logs, and an accompanying decline in value. And there is an inverse relation to value and demand for large diameter western hemlock and grand fir, in addition to woodland owners possibly finding themselves trucking this material substantial distances to find a market.

And forget biomass and carbon credits if money is the primary objective of a sale.

What about those timberland investment management organizations (TIMOs), as they have seen substantial growth over the past decade? Remember, the primary responsibility of TIMOs is to find, analyze, and acquire properties that will provide an adequate return on investment for their clients. Given the market share of small woodland owners, does anyone hear shopping malls or rural residential housing? It is questionable whether these entities can do anything for the average woodland owner that is merely attempting to find markets for their logs. What about co-ops, a topic of discussion for a number of years? The concept involves an economy of scale, as participants hope to achieve an increase in purchasing power and integrating logistical processes such as transportation and processing. In theory, there appears to be some efficacy to the model, but today’s reality finds sort yards performing similar functions, at a cost of course.

When all is said and done, the
driving force behind the supply and demand for timber involves housing starts. Today, the U.S. is facing a crushing national debt, deficit spending into the foreseeable future, a “jobless economic recovery,” record housing foreclosures, declining home values, and a weak dollar. Currently, interest rates are at historic lows in an attempt to provide incentive for investment in new homes. Figure 1 shows a direct correlation between housing starts and Douglas-fir log values. The Federal Reserve is telling us they are going to continue with the current interest rates to stimulate investment. Will this have an effect on housing starts (and corresponding log values)?

There have been indicators telling us the economy is slowly recovering, due primarily to a demand for durable goods and increasing commodity prices. But forecasters are cautious, and uncertainty is the only certainty in current markets. Usually, this is a harbinger for change, and for the time being, that change is a good one as Douglas-fir log values continue their rise.

However, observing the economy gives one pause as to why we currently are witnessing better times as indicators do not suggest higher log values. Enter China. If we associate domestic log markets with a dog and exports with its tail, then the question arises as to whether the tail is wagging the dog? The China market is not of traditional export quality, as the current log is a substantially lower “grade” log than normally associated with exports. And this market is not available to everyone due to trucking costs that limits hauling distances to approximately 100 miles. As fuel prices continue to rise, hauling distances will become even more restrictive.

Another factor affecting domestic log values involves the lower quality

—Continued on next page—
China log: there are no “back hauls” containing lower quality material for the domestic mills. Everything going to the docks is being shipped, thus competition for any and all material: everyone is after the same thing… pretty much anything. Unlike “traditional” upswings, other species are not necessarily following suit, which further substantiates the opinion that the tail is indeed wagging the dog. Recently, there have been slight increases in values for species other than Doug-fir, but not at similar percentages, thus a “rising tide,” but not in equal proportions.

The general economy is beyond our control, as is the number and location of mills, but history does reveal some interesting trends. Figure 2 shows 2010 Doug-fir log values higher earlier in the year. Access to timberlands appears to be an important factor in annual pricing. Another factor is the summer building season: Mills increase production in the late winter/early spring months in anticipation of the increase for lumber during the dry months’ building season. Figure 3 shows that since 1995 there is only one occurrence in which prices have been at an annual low during the spring (March 2001). Conversely, from July through September, at no time in the 15-year period would a woodland owner obtain the highest price selling their logs during these dry months.

Of course, everyone wants to sell at the market zenith, but that is a rare occurrence. Experience shows it is better to be early than late when selling logs. Today’s log values are determined in anticipation of tomorrow’s price: Is it a bullish or bearish market? If prices are rising, speculation will result in higher values, but they increase at a slower rate than in a declining market.

Another factor to consider if selling in a downward trending market involves mills rationing their suppliers, where they accept limited volumes over extended time periods. Exacerbating the issue is if the rationing requires log deliveries extending into another pricing cycle and the purchase order re-structured to reflect lower values. Studies show that in calendar years with increasing values, the average variance is 10.9 percent while markets with a price decrease show values declining an average of 18.0 percent.

Looking down the road, Douglas-fir will remain in demand, allowing PNW mills to operate, but values are uncertain due to a dynamic housing market along with competition of non-wood building materials pressuring any substantial, long-term price increases. Recently, Douglas-fir export sawlogs in the PNW has seen an unexpected jump for lower quality material generated by the China market, but do not expect this to last far into the future. If woodland owners do not need the money, consider leaving those trees on the stump as values have yet to return to levels seen in years past; the trees will only continue to grow in size and value.

One aspect that is virtually guaranteed deals with the dynamic nature of commodity markets, stated best as, “What goes around comes around.” Markets were strong in the past, and we are now a bit on the downside, but things will come back. So continue to monitor the market, as you have learned what it was in the past, what it is today, and what will be needed to act tomorrow.

**Steve Bowers**, aka Treeman, is an OSU Extension forester for Douglas County in Roseburg. He can be reached at 541-672-4461 or
Forest Landowners Can Reap Benefits by Donating a Conservation Easement

BY CHRIS DeFOREST

Many forest landowners think in the long-term—they are thinking about the life of their forest extending well beyond their own life span. If you plan to always keep your land in production, you may wish to consider donating a conservation easement that permanently limits future development of the land. Why? One reason is because the federal government offers what can be a substantial income tax deduction for doing so. A conservation easement may also help you pass the land on to your heirs.

Donating a conservation easement can be one of the smartest ways for a forest landowner to conserve the land they love while maintaining their private property rights and possibly realizing significant federal tax benefits.

What is a conservation easement?

A conservation easement is a legal agreement between a willing private landowner and a land trust or government agency that permanently limits uses of the land in order to protect its conservation values.

You still own and manage your land

When you donate a conservation easement to a qualified land trust, you are only giving away some of your rights to the land. Most easements restrict the amount of future development of the land in order to preserve it for open space, wildlife habitat, agriculture, or timber production. You still maintain ownership and management of your land, and can sell or pass the land on to your heirs. The permanent protections run with the land and remain in place even after you have given or sold your land to someone else.

What are the benefits?

One of the main benefits of a conservation easement is the peace of mind that comes from knowing your cherished land is permanently protected for future generations. Easements preserve the conservation values of the land—agricultural production,

—Continued on next page—
wildlife habitat, scenic beauty, water, and air filtration, to name a few. Easements are also a way to permanently protect the land while retaining private ownership and control. See “Preserving Connections” sidebar.

There can be significant estate tax benefits. The conservation easement may reduce the value of the land so that your estate is no longer subject to federal estate tax. Federal estate tax limits have changed recently. Consult your tax advisor for details.

There are also significant income tax benefits for donating a conservation easement. Landowners that donate a conservation easement may deduct the value of that charitable gift on their income taxes, much in the same way other charitable gifts may be deducted. There are some special rules for easement donations that make this type of charitable gift even more attractive.

**Now is an extra good time to donate a conservation easement**

Landowners have an additional reason to donate a conservation easement before the end of 2011. Congress recently extended a temporary federal tax incentive that allows qualified farmers, ranchers, and tree farmers to take a bigger income tax deduction and spread that deduction out over more years. Even when the temporary enhancements expire, donating a conservation easement

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**Preserving Connections**

WFFA members Cathy Bond Anderson and Alfred Anderson entered into a conservation easement with Inland Northwest Land Trust. “We thought the forest and the family connection were important enough to preserve,” says Alfred. “The land trust will watch over the land’s future.”

**WFFA members Cathy and Alfred Anderson donated a conservation easement to protect their sustainably managed forest.**

The conservation easement prevents subdivision of the land and requires the preservation of the forest so it will remain intact as wildlife habitat and a sustainable working forest. The easement allows the Andersons and their successors to manage their forest under an approved forest management plan.

The Andersons manage their forest sustainably and recently realized some of its commercial potential through the sale of timber from forest thinning. Their forester, Sheldon Magnuson, removed excess and diseased trees to maintain forest health and reduce the impact of forest fires. The sale of those trees more than paid for the thinning process.

“We want to replant cedars that were originally present on the property, even though we’ll never see them fully grown. Some day we will sell or pass this land to someone else,” says Alfred. “The easement allows us to focus on the long term and it will allow our successors to focus on the long term as well.”

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**Goats from Healing Hooves clear weeds and brush out of the Anderson’s aspen grove.**

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**PHOTO COURTESY OF INLAND NORTHWEST LAND TRUST**

**WFFA members Cathy and Alfred Anderson donated a conservation easement to protect their sustainably managed forest.**

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Chris DeForest is executive director of the Inland Northwest Land Trust in Spokane, Wash. He can be reached at 509-328-2939 or cdeforest@inlandnwlandtrust.org. More information on land trusts can be found on the INLT website at www.inlandnwlandtrust.org, or to find a land trust near you, visit the Land Trust Alliance at www.lta.org.

When you consider that only 10% of the world’s forests are certified, we have a long way to go. The good news is that there are a number of credible forest certification programs. And each one, including SFI, encourages responsible forestry. For more on forest certification and what you can do, visit www.sfiprogram.org.

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IFOA members Archie and Mary George’s land near Priest River includes woodlands, meadows, and a “kettle lake,” formed when a depression left by melting glacial ice filled with water. The lake has a permanent floating mat of Sphagnum moss. The five-acre lake is surrounded by a fen, which is a peat-forming wetland that receives nutrients from sources other than precipitation, usually from upslope sources through drainage from surrounding mineral soils and from groundwater movement. Fens differ from bogs because they are less acidic and have higher nutrient levels. They are therefore able to support a much more diverse plant and animal community. These systems are often covered by grasses, sedges, rushes, and wildflowers. There are other fens in the area, but these rare and fragile habitats are at risk due to development. Because of the large historical loss of this ecosystem type, remaining fens are rare, and it is crucial to protect them. It is important to recognize that while mining and draining these ecosystems provide resources for people, up to 10,000 years are required to form a fen naturally.

The Georges donated a conservation easement restricting development on this special place because they wanted it to be protected even after they are gone.

“If we could live forever, we would not have felt the need to donate an easement. With the easement in place and with annual monitoring by the land trust, we’re confident the biological diversity will be preserved indefinitely into the future,” says Archie. “The land trust is an independent party with an interest in ensuring the terms of the easement are carried out. This is the fundamental difference between conservation easements and covenants or deed restrictions landowners sometimes use to direct future owners’ activities. I’m confident our forestland will remain productive and in private ownership, while undesirable activities, subdivision, and development by future landowners is off the table.”

The Georges found the process of developing the conservation easement an opportunity to clarify their vision, set realistic long-term goals, and begin the process of ensuring those goals have permanence. One term of the easement is that timber harvest is allowed as long as it is in accordance with an approved timber management plan. The Georges worked with Inland Forest Management to develop a timber management plan that includes selective harvest, new plantings, and fuel reduction under the NRCS EQIP program. “While not everyone owns a fen, or wants too, I believe every forest property is unique. It is important to preserve working forests, farms and other ‘open spaces’ in order to maintain the quality of life we enjoy in this special part of the world,” says Archie.

The Georges are proud of the work they have done over the 17 years they have owned the property. “This is very satisfying work. Mary and I are doing nearly all of it ourselves, but with some help from friends and family,” says Archie. “It enhances our pride of ownership. We envision a future with a productive forest while maintaining the pristine nature of the lake and wetland.”

Archie and his golden lab, Abby, explore the woodlands in winter.
Carbon Market Opportunities for Family Forest Landowners

By MIKE BARNES AND MATT DELANEY

Over the last two years, a lot has happened in the carbon offset market. Developments nationally and regionally are impacting carbon opportunities for all forest landowners, especially family forest landowners. Here is what you need to know about the changing marketplace and how to prepare you and your family to participate in this evolving opportunity.

Since 2008, Oregon-based Woodlands Carbon Company—a subsidiary of Oregon Small Woodlands Association (OSWA)—has been working with family woodland owners to develop carbon revenue opportunities from working forests in partnership with the American Forest Foundation (AFF). Woodlands Carbon is not restricted to just Oregon, but to keep project costs low, the program is focused on OSWA members at this time.

OSWA and AFF recognized that the vast majority of family forestland owners would not be able to participate in the carbon market because they own too few acres and the administrative cost would be too high. Based on today’s carbon values, it is not economic for landowners with less than 2,500 acres to participate in the carbon market. So, together OSWA and AFF developed a way to pool landowners together to increase the number of acres and to reduce costs—this is commonly referred to as aggregating.

Forest certification is required to participate in the program through either the American Tree Farm System (ATFS) or the Forest Stewardship Council (FSC). To date, 11 family forestland owners are under four-year contracts to Woodlands Carbon. Those contracts represent 60,000 tons of carbon, which is being actively marketed to voluntary buyers.

The Woodlands Carbon program is based on the rules developed by the Chicago Climate Exchange (CCX). Although CCX ended its trading program in 2010, its rules for developing carbon projects will continue to be used by Woodlands Carbon. Under current market conditions, all the carbon from the Woodlands Carbon program will be sold to voluntary buyers.

Alternative programs continue to develop. The program receiving the most attention in the marketplace today is the Climate Action Reserve (CAR). CAR is a California-based program, but accepts forestry projects anywhere in the U.S. The differences between CCX and CAR are significant, including a 100-year contract requirement for CAR. Equally important are the high CAR participation costs that make it uneconomical for most family forest ownerships. In addition, forestry protocols were approved last year for use in the U.S. by the American Carbon Registry (ACR) and the Verified Carbon Standard (VCS) programs. These rules offer shorter contract lengths (20 to 100 years) and forest management flexibility, all at a lower participation costs.

Significant national and regional developments in the carbon marketplace have occurred over the past year. Last fall Congress punted on a national law governing the regulation of greenhouse gas emissions (also known as a cap-and-trade system) and it is believed by many that national action on climate change is unlikely until after the 2012 election.

On the other hand, California is scheduled to implement a statewide cap-and-trade system on January 1, 2012. Initially, greenhouse gases (including carbon dioxide) emitted by all major utilities and industrial sources will be regulated and required to reduce these emissions each year after the program begins operations in early 2012. To help meet reduction targets of greenhouse gases, forestry project carbon offsets will be allowed (from anywhere in the U.S.). This does create a potential opportunity for family forest landowners if CAR lowers participation costs and if a landowner is agreeable to a 100-year contract.

As the result of Congressional inaction, U.S. EPA announced late last year its intention to regulate greenhouse gas emissions, particularly for biomass energy production. In
January, the agency decided to defer action on this issue for three years. It is unlikely that any federal cap-and-trade system for greenhouse gases will develop over the next few years barring significant initiatives by the current administration or Congress.

For now the private sector focus is on CAR and other carbon registries, including the American Carbon Registry and the Verified Carbon Standard. However, CAR offsets are currently commanding about a 40 percent premium over other voluntary markets. A research report released in late February by Reuters/Point Carbon predicts that CAR offsets will start at $13/ton in 2012 and rise to about $75/ton by 2020 due to predicted supply constraints. Voluntary carbon prices are expected to increase in value as CAR values rise.

**What kind of opportunities are there for forest carbon crediting on your land?**

There are a variety of forest management activities that can enhance carbon storage on forestland. In general, the class of carbon project most applicable to family forestland owners is a type called “Improved Forest Management” or IFM. IFM carbon projects can involve a variety of strategies designed to increase the total amount of carbon stored in your forest. The existing IFM protocols typically require extending the forest rotation age by as little as five to 10 years.

**What steps can you take to be a participant?**

If you are interested in participating in carbon markets that will provide income from your forest management activities, the following basic steps are necessary.

**Step 1: Determine if you are eligible.**

How a carbon offset is defined and how it is accounted for varies by program. Most carbon registries require enrollment in a sustainable forest management program (American Tree Farm System, Sustainable Forestry Initiative, or the Forest Stewardship Council). These programs require a forest management plan. If you decide to participate in the carbon market, develop a forest management plan or update your existing plan, then you can enroll in one of the certification programs that meet your values and needs.

**Step 2: Calculate the number of acres that will qualify for carbon crediting.**

Calculate the total forest acres of your property, but remove acres that will not qualify because of legal restrictions (streams, buffers, roads, endangered species habitat, etc.).

**Step 3: Complete a preliminary inventory of your potential project area.**

Before going through the time and expense of a complete carbon inventory, a landowner should minimize investment by having some inventory data in which to evaluate the carbon opportunity. Basic forest inventory information like species, dbh, stems per acre, and average height will be sufficient at the preliminary assessment stage. In addition, your management plan and long-term harvest schedule should be considered.

**Step 4: Decide what kind of carbon contract period you are comfortable with.**

The price of carbon varies by carbon contract commitment. Programs that require 100-year contracts are valued higher in the marketplace than ones that are less lengthy. Before a calculation of carbon value can be made, the landowner should have an idea of the contract length that they are comfortable with. Carbon prices for 100-year contracts may be double what they are for contracts only 20 years in length.

**Step 5: Contact a carbon project developer, a local consulting forester, or forestry extension agent for assistance with providing a carbon estimate of your project area.**

After the landowner has information on existing carbon stocks and project acreage, an analysis of carbon potential from an Improved Forest Management strategy needs to be conducted. Forest carbon project developers such as Woodlands Carbon typically can do this analysis for free or at low cost.

**Step 6: Selling your carbon.**

Depending on the carbon registry, carbon credits can be marketed to a variety of offset buyers. Either a project developer or a consulting forester can help you identify buyers that will offer you payment for your offsets. Landowners with less than 2,500 acres should seek out a project developer that can pool your forestland with other landowners.

**Concluding thoughts**

The year 2011 is likely to be another interesting year for the U.S. carbon market. Woodlands Carbon is focusing on marketing the carbon it has under contract and expanding the number of landowners participating in its program. Carbon project developers and investors are gearing up to take advantage of the new regulated market in California while still others are preparing to serve the increasing demand of voluntary buyers seeking to meet their social responsibility commitments as the economy recovers.

Due to the economic downturn and developments in the carbon registry sector, generating carbon revenue is currently challenging for family woodland landowners. However, forestry offsets are desired in the carbon marketplace for many reasons, principally the ecological co-benefits that come with well managed forestlands. Therefore, although market options are more limited than they were a couple of years ago, opportunities are still available to generate carbon revenue from family forestlands.

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Consumer-grade GPS receivers differ from mapping- and survey-grade GPS receivers by their lower price ($400 or less in study year 2007), fewer capabilities (measurements cannot be easily differentially corrected), and less favorable manufacturer-stated accuracies (16-49 feet). This study, conducted by an Oregon State University assistant professor in forest engineering, compared the relative measurement accuracy and reliability of six consumer-grade GPS receivers in several distinct environmental settings. The six receivers were: Brunton Atlas MNS; Delorme Earthmate GPS PN-20; Garmin eTrex Legend Cx; Garmin GPSmap 60CS; Garmin GPSmap 76Cx; and Lowrance iFinder Explorer. The environmental settings were: open sky (unobstructed sky view); young forest (moderate density stand of primarily conifer trees aged approximately 10-20 years); and closed forest (nearly total canopy closure from conifer forest aged approximately 40-50 years).

Another objective was to examine the influence of 30 and 60 GPS receiver point averages on measurement accuracy. A GPS with point averaging capability can automatically calculate and store the average of multiple points to represent a single location.

The Department of Defense’s NAVSTAR collection of orbiting satellites, earth-surface monitoring stations, and other features allows GPS receivers to reliably record three-dimensional positions if communication is maintained with at least four satellites. Potential sources of GPS error are: (1) signal interference from atmospheric conditions; (2) timing synchronization between satellite and receiver; and (3) imperfect position of tracking satellites.

Some error can be reduced by adding satellite information from the Federal Aviation Administration’s Wide Area Augmentation System (WAAS) that applies differential corrections in real time so that the receiver can simultaneously receive signals from NAVSTAR and a WAAS satellite. Similar to NAVSTAR satellites, a consumer-grade GPS receiver must have line-of-sight with a WAAS satellite to receive signals.

GPS receiver accuracy can be potentially improved by: (1) scheduling data collection times when more satellites are available (WAAS satellite status can be consulted online at www.nstb.tc.faa.gov/index.htm); (2) avoiding an obstructed sky view; or (3) using an external antenna to better receive satellite communications. One other technique is to collect many measurements at each point of interest and use the average of those measurements to represent the actual position. However, in this study, accuracy of these six receivers was not statistically better than a single measurement when the receiver averaged 30 or 60 measurement points.

The author determined that the Garmin GPSmap 60CS had the smallest overall average measurement error (11 feet). The DeLorme Earthmate GPS PN-20 had the largest overall error (25 feet). The GPSmap 60CS had the least error for all receivers under open sky (1-2 feet), young forest (3-4 feet), and closed forest (18-26 feet). The Garmin GPSmap 76Cx had the most error of any GPS receiver under a closed forest (36-42 feet). The GPSmap 60CS appears to be the best for measurement accuracy and consistency. The GPSmap 60CS has recently been replaced by the Garmin GPSmap 60Cx.
Capturing Value from Your Property continued from page 9

the means for collecting payment and it would ensure that the full range of end users would participate.

3. Regulate forestland uses without compensation

The third of these strategies is the regulation of forestland uses without direct landowner compensation. Both Oregon and Washington have relied on this strategy through their land use and forest practices programs (often called best management programs). Oregon and Washington adopted regulatory forest practices programs in the early 1970s. Oregon’s land use program was also adopted in the early 1970s while Washington’s program was adopted in 1990. In the case of the land use program, forestland is zoned, thus restricting non-forest uses. The forest practices programs enforce performance standards for the conduct of forest operations protecting water, fish, wildlife, air, and special resource sites.

Regulatory programs can have positive and negative effects on forest productivity and value. Regulations that erode forest economic viability and promote forest conversion to other uses may result in overall reduced environmental protection. It is essential that forest landowners participate in the process to develop “best management practices” to ensure that they are science-based, effective, efficient, understandable, and implementable. To the extent that rules are truly best management practices, landowner value is created including the value of an equal “regulatory” playing field, preserved soil productivity, reduced road and road crossing costs, ensured forestland property tax rates, and increased public acceptance of forest practices (in Oregon that includes limits on nuisance claims).

4. Direct compensation

The final of these strategies is the regulation of forestland uses with direct landowner compensation. This strategy includes the emerging systems of private regulation based on certification, conservation easement programs, direct payment programs for forested stream buffers, wetland and other protections, and transfer programs for development rights. Systems and programs under this strategy are often controlled by various types of private groups rather than government agencies.

Various governmental and non-governmental conservation easement programs are the most mature of these programs. Conservation easements create value by the landowner selling either development rights or by providing specific resource protection valued by another party. Landowner value may also be gained through state and federal tax advantages for the conservation easement. Federal funding for conservation easement programs has recently declined and is likely to be more limited due to the national economic situation.

Washington provides a direct compensation program available to family forest landowners with significant impacts from riparian protection standards under their forest practices program. Oregon does not have a similar program, but does have grants available to assist landowners to meet regulatory standards for fish passage on culverts and for restoration activities under the Oregon Plan for Salmon and Watersheds.

Beginning in the 1990s, several voluntary regulatory (certification) systems that promote “well-managed” forests relevant to the Northwest have emerged including the American Tree Farm System, Forest Stewardship Council, and Sustainable Forestry Initiative. By participating in a certification scheme landowners hope to avoid environmental controversy, improve their public image, improve market access (such as for green buildings) or gain other market advantages for their environmental performance.

In Oregon and Washington, and across the nation, investments that add value to forestlands and landowner value have contributed to water and air quality that is greatly improved from the 1960s. For forestland, government has traditionally relied upon the first and third strategies discussed above. State and federal investments in the first strategy have sharply declined over the past 30 years, while regulatory programs and standards have continued to increase. Growing interest and investment in the second and fourth strategies has increased non-governmental organization involvement in environmental governance and in programs that may either increase or decrease landowner value.

Until the current recession, in many parts of the Northwest forestland values for residential uses were outpacing forestland values for forest uses. Competition from wood products from areas with less restrictive environmental standards also puts producers from the Northwest at a disadvantage unless they can capture value from their higher environmental performance. As a result of these trends, a stronger common interest among public and non-governmental players to sustain forestlands by providing increased value for forest landowners is emerging. Nonetheless, the investments and sweat equity of willing and able landowners will remain a primary means of creating forestland value.

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NORTHWEST WOODLANDS . SPRING 2011 . 29
DEAR TREEMAN, Stick to trees and leave the issue of global warming to the qualified scientific community.

—Lee

DEAR LEE, If oxymoron did not routinely supersede “qualified” and “scientific community” when examining the concept of global warming, perhaps we could avoid this discussion. But alas, when you present a chart displaying the past decade as the warmest on record, while placing the culprit at the feet of man’s contribution of atmospheric carbon dioxide, then as it was at Arnhem in 1944, we have gone a bridge too far.

While we do not profess to be a qualified scientist, there are occasions where mundane minds resort to the concept of a topic passing the “smell test,” and our carbon dioxide contention has a malodorous effluence on several accounts. Water vapor is the Earth’s most significant greenhouse gas, accounting for 95 percent of greenhouse contributions of which 99.999 percent is of natural origin, so exculpate us humans.

Carbon dioxide accounts for about 3.6 percent of our greenhouse gases, of which 3.2 percent is of anthropogenic (man-made) origins. Thus, man’s contribution of carbon dioxide to the warming of our planet amounts to about one tenth of one percent. The Kyoto Protocol calls for mandatory carbon dioxide reductions of 30 percent, which would reduce total human greenhouse contributions of carbon dioxide a staggering three hundredths of one percent! In Fahrenheit terms, we would lower Earth’s temperature one-twentieth of a degree over the next four decades. One can anticipate the upcoming global deforestation courtesy of firewood!

Over the past several hundred million years, carbon dioxide levels have been cyclical in nature. More recently, there has been a 20 to 30 percent increase in levels since the Industrial Revolution. Can this be attributed to the malfeasance of the corporate world? If we can attribute global warming to increased levels of human-caused carbon dioxide, does logic dictate increases in other greenhouse gases? Methane levels have not increased the past 20 years, so who knows?

Everyone agrees the Earth’s climate is changing. The rub occurs in the “why.” There is an element that blames humankind for all of Earth’s problems while others contend the culprit is Mother Nature. Many in the scientific community believe the sun’s energy output and cyclical eccentricities in Earth’s rotation and orbit are major causes in climate change. We have the Pacific Decadal Oscillation (PDO) and El Nino and La Nina. Theories abound on these dynamic forces of nature, but we cannot exempt ourselves from the equation.

Remember acid rain and how the industrial world was causing global deforestation? Next up was the hole in the ozone and Antarctica was melting. And how can one forget the beginning of the next Ice Age back in the ‘70s? Today, we’re all gonna cook! Perhaps Shakespeare said it best in Hamlet, “The lady doth protest too much, methinks.” We cannot diminish personal responsibility in the forms of conservation, recycling and sustainable living practices. But to blame humankind for every malady, false or real, is a bit conceited and arrogant on our part, and even more so thinking we have all the answers! —Treeman

DEAR RALPH, Salamander is the common name for *Caudata*, including nine families, of which eight are located in North America. Newt is the common name applied to members of small salamanders. And don’t forget caecilians, or sirens (rest easy Ulysses, we won’t be dashed upon the rocks as our sirens make no sound), which are aquatic salamanders having no hind legs. So newts and sirens are really salamanders, all of which account for about 350 species out of approximately 4,000 amphibians.

What some call a salamander in America might be labeled a newt in Europe (remember our conversation on caribou versus reindeer?). Others distinguish between the two, having salamanders living completely on land or totally in the water, whereas newts live on the land then enter the water to breed in the spring. And neither is classified as a lizard, as salamanders have moist skin and no scales, claws, or external ear openings. It sounds like your specimens may well be newts. Either way, in terms of toxicity, there is no difference.

Whatever you want to call them, these guys are not suitable for handling. And we’re as toxic to them as they are to us: they cannot tolerate the oil, salt and heat from our hands. Newts are also toxic to their natural predators: research has shown deaths in several species that granulose consumed these critters, including our friend the shikepoke. The rough-skinned newt, *Taricha*, is very toxic. They are relatively common in the PNW and can be identified by their roughish texture and being brownish colored in their backs and an orangish color on their bellies. A drunken logger in Coos Bay ate one on a dare and expired several hours later in the hospital. So if you do decide to inebriate yourselves, stay away from sharp objects, automobiles, and salamanders. —Treeman
Respectively, the three authors are summer research intern, Clemson University professor, and Clemson U. research associate.

A survey of high school seniors was conducted on the website MySpace, an Internet social networking system that allows people to post personal information and to communicate online. The poll asked 18 closed-end questions and 4 open-end questions. A statistically valid sample size was judged to be 1,000, and because it was hoped that geography could be evaluated as a variable, 20 surveys were sent to each state. Zip codes in each state were randomly selected. After a single follow-up contact with non-respondents, the response rate turned out to be 14.8% (148 teens responded).

This inquiry found that high school seniors have a high level of concern for the environment. Major issues that are well-covered in the media rated their highest level of concern (i.e. global warming, pollution, wildlife, and sustainability). There was lesser concern for land-use changes, fragmentation, private property rights, and invasive species.

The proportion of teens that correctly defined job duties of four representative natural resource occupations were: forester (67%), park ranger (75%), wildlife manager (80%), and soil/water conservationist (90%). The most attractive occupation was park ranger (51%) and the top reason was a liking for the outdoors. The least attractive occupation was forester (17%) and the top reason was a liking for wilderness. (Comment: Intuitively, these reasons seem reversed for their respective occupation.)

The study found some interesting observations about these teens. The main source of information on environmental issues is the media (70%). If teens had their own forest, 43% would manage for recreation and 10% would manage for timber (money). Thirty percent feel that forests are better managed now than in the past. Only 15% had been offered natural resources career information by their guidance counselors. Male students, political conservatives, and students who were not from a wealthy family were most interested in natural resources management careers. Rural or urban background made no difference and college-bound students were less interested in these careers than students who were not planning to attend college.
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