



FWF Update Newsletter

Department of Forestry, Wildlife and Fisheries

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Dr. Keith Belli, Department Head

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Children and Nature 2008 - Website

A report on the movement to reconnect children to the natural world.

The Children & Nature Network (C&NN) was created to encourage and support the people and organizations working to reconnect children with nature. C&NN provides access to the latest news and research in the field and a peer-to-peer network of researchers and individuals, educators and organizations dedicated to children's health and well-being.

“In our bones we need the natural curves of hills, the scent of chapparral, the whisper of pines, the possibility of wildness,” he writes. “ We require these patches of nature for mental health and oru spiritual resilience.” “Beyond programs and legislation, our ultimate goal is deep cultural change, connecting children to nature, so that they can be healthier, happier and smarter.”

Richard Louv’s book, “**Last Child in the Woods: Saving Our Children From Nature Deficit Disorder**” has launched a growing movement to reconnect children with nature (www.childrenandnature.org). Louv provides scientific evidence and offers practical suggestions for parents, teachers, urban planners, and anyone concerned about the future of children and the environment. He discusses how unstructured play outdoors has a positive healthy effect on child development, creativity and cognitive functioning while improving health risks such as ADHD, child obesity and stress.

For more information go to, <http://www.childrenandnature.org/uploads/CNMovement.pdf>

USDA Sweetens The Pot For Wetlands Restorations

TN.gov Newsroom

In the last several months, the U.S. Department of Agriculture (USDA) has made restoring wetlands more attractive for private landowners under several initiatives and programs.

In October, USDA announced additional payment incentives to be provided through several Conservation Reserve Program (CRP) wetlands and bottomland hardwood conservation practices. Under an ongoing (continuous) signup, participants can apply for 10 to 15 year contracts on eligible lands for the CP23 Wetlands Restoration-Floodplain, CP23A Wetlands Restoration - Nonfloodplain, and CP31 Bottomland Timber Restoration on Wetlands practices. In addition to the standard 50 percent cost-share for habitat restoration costs, they can now also receive a 40 percent Practice Incentive Payment on eligible restoration costs, a \$100 per acre up-front Signing Incentive Payment, and an extra 20 percent added to the annual rental payment they receive each year of their CRP contract.

Several months ago, several new State Acres for Wildlife Enhancement (SAFE) practices were announced for Tennessee, which included three CP38B “Wetlands for Wildlife” practices. Depending on site suitability, land may be enrolled as SAFE Shallow Water Areas, SAFE Wetlands Restoration, or SAFE Wetlands Restoration (Non-floodplain) practice.

These SAFE wetlands practices have the same incentives as the above-mentioned practices except for the additional 20 percent extra on the annual rental payment. “The previous CP9 Shallow Water Area practice was very popular with duck hunters, and will likely be even more popular with the added SAFE financial incentives,” Tennessee Wildlife Resources Agency Wetlands Biologist Chris Hunter notes.

Land eligible for any of the CRP or CRP-SAFE practices must meet certain cropping history criteria. Check with your local USDA Service Center for eligibility.

In the new Farm Bill passed by Congress in May and effective as of Oct. 1, 2008, lands enrolled in the Wetlands Reserve Program (WRP) under permanent easements, 30-year easements, or restoration agreements will receive compensation rates that are significantly higher than they were prior to Oct. 1. The WRP also pays for 100% of the restoration costs for permanent easements and 75 percent for 30-year easements and restoration agreements. To be eligible for WRP, the land must have been owned for at least seven years.

“This is a significant move towards achieving wetlands acreage goals set by TWRA for adequate management of the many wildlife species that use wetlands, wetland buffer areas, and bottomland hardwoods,” said TWRA Executive Director Gary Myers. “The USDA and private landowners are essential partners in increasing wildlife habitat on private lands.”

Interested landowners can apply for these programs and find out more information at their local USDA service center. The TWRA has several wildlife biologists that can provide technical assistance to landowners on both wetlands and uplands habitats and assistance on navigating conservation programs. Visit www.TWRPrivatelands.org and click on the county the land is in for their contact information.

Streamside Management Zones (SMZs)

Wayne Clatterbuck, Professor, Forest Management and Silviculture

Streamside Management Zones may be the most critical Best Management Practice (BMP) during harvesting operations. SMZs are a vegetated zone that serves as a buffer between harvested areas and water bodies (streams, creeks, rivers, lakes) to trap sediment before it enters the water. SMZs provide other benefits. Trees and other vegetation in the SMZ provide shade to the waterway to prevent elevated stream temperature that affects aquatic organisms. These buffer strips also serve as travel corridors and cover for wildlife.

When should SMZs be applied? SMZs should be applied adjacent to *perennial* or *intermittent* streams. These streams have a well-defined channel and support aquatic life. Although these streams flow during most times of the year, they may dry up during drought periods. SMZs should still be applied. *Ephemeral* streams, commonly referred to as drains, draws, or dry washes, typically have no well-defined channels and flow only during and for short periods following rainfall. Aquatic organisms are not present. SMZs are not required for ephemeral streams, but care must be taken to minimize disturbing soil in these concave depressions before they enter intermittent or perennial streams.

How wide should a SMZ be? There is no uniform formula to determine the width of the SMZ. The objective of the SMZ is to trap any sediment that might erode from disturbed areas. The steeper the slope, and the more erosive the soil, the wider should be the SMZ. The minimum width of a SMZ is 25 feet on each side, measured from the stream bank, not the centerline of the stream. Hay bales and silt fences can be used to ensure that sediment does not reach a stream if adequate SMZ width cannot be attained.

Can we cut trees in the SMZ? Yes, but extreme care must be observed. We prefer that SMZs be “no equipment zones” where timber must be pulled or winched from the zone. SMZ guidelines specify that no more than 50 percent of the tree cover can be harvested, leaving at least 50 percent to maintain the functionality of the buffer strip.

SMZs may be the most productive forestland because of the proximity to water. These areas should be managed for maximum benefit for water quality and the growth of trees. Too often, SMZs are high-graded with little potential for future value. In other areas, they are left alone, with little management becoming unhealthy and susceptible to insects and disease.

Can we have roads in the SMZ? Preferably not, but existing roads do occur. Maintain existing roads within SMZs with adequate water control structures --- dips, wing ditches and water bars. Do not divert water directly into the stream; divert water in the filter strip so sediments may settle out. Minimize stream crossing and locate new roads outside the SMZ. Locate log decks, staging areas and skid trails outside the SMZ. Remember, SMZs should be treated as no equipment zones to minimize site disturbance.

Logging Roads for Your Forest Property

Wayne Clatterbuck, Professor, Forest Management and Silviculture

Roads are a major source of erosion and sedimentation in the forest. Care must be taken during road construction and maintenance to minimize these impacts. Roads divert shallow sub-surface drainage and increase surface runoff. The basic rule for managing surface water is to handle it in small amounts before the water develops sufficient volume and velocity to cause erosion. Turnouts, broad-based dips and out-sloping the road are a few examples of getting water off the road quickly.

Do not build your road when soils are either very wet or very dry. Both conditions contribute to roadbed instability and sediment production. If possible, build your road at least three months before your logging operation begins to allow the road to settle and stabilize.

The surface of the haul road may be shaped in three ways: crowned, in-sloped and out-sloped. The choice of surface shaping depends on drainage needs, topography, soil characteristics, slope and expected traffic. In-sloped or out-sloped roads are easier than crown roads to maintain because they have a flat surface. Out-sloped surfaces need little or no high side ditch. This reduces the cost of road building and makes subsequent maintenance easier. In-sloped roads are generally not recommended unless absolutely necessary because expensive drainage structures such as culverts are required to get water back across the road.

On straight stretches, road width should be 12 feet for most log trucks. On curves, road width needs to be greater to allow for the shorter tracking radius of the back wheels of the trailing load. The outside curve needs to be clear to allow tail sweep of long, log loads to pass.

To enhance prompt drainage from the roadbed, the road grade should be at least 2 or 3 % and the road surface should be smooth to prevent water puddling. Conversely, a haul road grade should not exceed 12%. Some haul roads are steeper, but they can become a safety concern during muddy conditions. Steeper grades quickly get torn up with spinning tires. Grade changes should be gradual without binding the load on the tractor or high centering between extended trailer wheels.

Putting gravel on your haul road will greatly increase its utility. Gravel roads are more usable during wet weather and hold up better under load stress. However, adding gravel increases construction costs. A strategy more commonly used is to gravel only where the road is likely to fail such as over culverts, across broad-based dips and in soft spots. For safety purposes, gravel the haul road where it meets a public road. The gravel helps keep down the dust at the intersection and also cuts down on the amount of dirt the trucks drag onto the highway.

The haul road should approach the highway at an angle headed in the direction that the trucks will be hauling. This greatly reduces the time it takes for a truck to enter traffic flow. The line of sight of the intersection should be clear for good visibility. The outlet of your haul road should not be in a blind curve or other obstruction that may hinder the view of sight.

Roads can be an asset for your property both during the harvest and for access afterward if they are properly located and maintained. If proper planning is done before the harvest, your roads will give you many benefits at less cost for other forest management activities.

Carbon Sequestration for Forest Landowners: Easy Goes It

David Mercker, Extension Specialist, Forest Management

A new word has emerged in the forestry lexicon: *sequester* or *sequestrate*. In legal terms sequester means “to seize and hold (a debtor’s property), until legal claims are satisfied.” In like terms with forest landowners, it means seizing atmospheric carbon then storing it in trees, and potentially earning revenue for the service.

How does it work? It works through “carbon markets” that help to fund greenhouse gas offset projects. The Chicago Climate Exchange (CCX) is one example, serving as a CO₂ emission registry. Manufacturing firms in the US that are members of the CCX make a voluntary but legally binding commitment to lower their greenhouse gas emissions. Known as “cap and trade,” CCX members have a CO₂ emission quota. If this quota is exceeded, they must offset the excess by purchasing carbon credits from sources that sequester carbon, such as forests.

Only forestlands that have been third-party certified are eligible to participate. This requires a forest stewardship plan and third-party verification. Several third-party forest certification systems in the US have been recognized as credible, most commonly: Sustainable Forestry Initiative (SFI), Forest Stewardship Council (FSC) and American Tree Farm (ATF). Landowners must work with a qualified professional forester¹ to conduct a “carbon” inventory that establishes the baseline carbon stocks. The data is submitted to a Registered Carbon Aggregator who in-turn uses a model to artificially grow the forest into the future. The model predicts the carbon sequestration rate, a figure that varies forest-by-forest and largely a function of stocking, species, and site index. Periodic payments are made to landowners based on the predicted carbon sequestration. Landowners are required to give an annual update if any changes have been made to the forest that would alter the carbon stock (e.g., harvesting, reforestation, catastrophic events, etc.). A carbon inventory at the conclusion of the contract quantifies the actual amount of sequestered carbon and allows for final settlement.

Fees are associated with inventory development, aggregation, verifications and transactions, and in some cases fees may exceed the carbon revenue. Some of these fees are deducted off the gross revenue from the sale of carbon-offset credits. Other fees, such as inventories and carbon modeling are normally due up front. The Registered Carbon Aggregator typically charges a commission, serving as a broker of accumulated sequestered carbon for a pool of landowners. Thus the highest trading price mutually benefits all parties.

Only those landowners with a serious and lasting commitment to long-term sustainable forest management should consider this program. It is a contractual agreement with initial costs that presently may not be suited for all ownerships. Landowners should understand that with participation in the program, comes an obligation that forests will remain in certified status for 15 years. Selling timber during the contract period will greatly affect carbon sequestration rates, potentially resulting in a penalty. This program is funded by private investors, not the government, and these investors are counting on participating landowners to deliver a product: sequestered carbon. And like the stock market, prices paid for sequestered carbon fluctuate daily with no minimum guarantee.

The program is in its infancy. Presently there are very few certified forests in Tennessee eligible to participate, and even fewer aggregators capable of marketing carbon. **Participants should seek full disclosure of all potential benefits and risks prior to enrolling.**

¹ Includes 1) a Certified Forester through the Society of American Foresters, 2) a State Registered Forester, or 3) a member of the Association of Consulting Foresters.

Rewarding Green Power

A proposal for new carbon credit program for forest landowners

Adam Taylor, Assistant Professor, Forest Products

The Chicago Climate Exchange¹ (CCX) has been established as “North America’s only active voluntary, legally binding integrated trading system to reduce emissions of all six major greenhouse gases (GHGs), with offset projects worldwide.” One of the offset categories is Forestry, comprising Afforestation, Managed Forest Projects and Long-Lived Wood programs.

These forestry programs seek to maintain forests as sustainably managed forests, or to establish them if they did not previously exist. Credits (with a monetary value) are given for increasing, and maintaining, the quantity of carbon² in the forest. In the case of the long-lived wood category, partial credit is given for the carbon stored in wood products such as building materials. The forest and wood carbon is considered to be an offset (negative pollution) to the carbon dioxide released from burning fossil fuels.

Don’t limit credits to tree carbon. By placing value on the carbon stored in the forest, the current program penalizes the cutting of trees for forest products. Even in the case of the “long-lived wood” category, credit is given only for the carbon that remains in the finished product (something less than the wood contained as a living tree). Thus the current carbon-credit scheme provides a disincentive to the harvest of forest products. This is unfortunate because payments for forest products encourage landowners to maintain forests as forests. Carbon credit schemes to encourage maintenance of forests should supplement, not counteract, the incentive provided by forest products.

Carbon dioxide release from deforestation is an important contributor to climate change and deforestation should be discouraged. However, killing (or ‘harvesting’) trees is not the equivalent of deforestation. Deforestation is almost always the result of land conversion for food production or development. The best way to prevent deforestation is to make the forest more valuable to the landowner as a forest than as something else – and generally the best way to do that is to provide a financial reward for forest products. Usually, the product is wood.

Cutting trees in a forest can also be an integral part of sustainable forest management. For example, forest thinning can reduce risk of catastrophic forest fires (which release stored carbon as carbon dioxide) and improve timber product values. However, thinning results in a reduction of carbon on the site, which is discouraged under the current carbon credit system.

¹ <http://www.chicagoclimatex.com/index.jsf>. Accessed 15 October 2008.

² ‘Carbon’ is the valued commodity here because the increase in atmospheric carbon dioxide (gas) is the major factor in the greenhouse effect and global climate change. Wood and other biomass is about half (solid) carbon, carbon that was fixed from carbon dioxide during photosynthesis. Carbon, when it occurs as a solid, does not contribute to the greenhouse effect.

In summary, the Forestry offset program organized by the Chicago Climate Exchange is well-intentioned but can be counterproductive when it discourages the harvest of trees.

A carbon credit system for wood fuel. The ultimate goal of a carbon cap-and-trade system should be to reduce fossil fuel-derived carbon dioxide pollution. In the context of forestry, the best way to do this is to replace fossil fuels with wood fuel. Wood fuel can be considered ‘carbon neutral’ with respect to climate change because the carbon dioxide released during combustion was recently removed from the air by the tree during photosynthesis. Thus, carbon credits should be given any time wood is used for fuel in place of fossil sources.

The forest products industry is mostly fueled by wood residues, so the cutting of trees for products such as lumber and paper is partially a biofuel harvest. When logs are delivered to sawmills, less than 50% of the raw material ends up as lumber; however, almost none of the wood or bark goes unused. Much of it is burned, in place of fossil fuels, for the production of energy. This is a good thing in terms of greenhouse gas emissions and should be rewarded. It would be a relatively simple matter to assign a ‘carbon neutral fuel offset’ to sawlogs and other forest products to accurately reflect the portion of the tree carbon that ends up as fuel.

The current stipulation that carbon credits will only be awarded to landowners engaged in (3rd-party verified) sustainable forest management should be maintained. Although at current prices there is no incentive to clear cut forests simply for fuel (‘using the whole hog to make sausage’), this restriction would ensure that the desire to reduce greenhouse gas emissions does not trump concerns for sustaining forests.

A carbon credit for wood used as fuel would reinforce the financial incentive (from cutting timber) that forest landowners receive from maintaining their working forests. It would also provide a true offset to the release of carbon pollution from the burning of fossil fuels. Within a regulated system that verifies sustainable forest management, carbon credits for wood fuel would benefit the forests, forest landowners and society as a whole.

Timber Tax Update

Larry Tankersley, Extension Forester

Timber Tax tips available at this website:

www.timbertax.org/publications/FS/taxtips/TaxTips08.pdf

This time of year talk turns to taxes and coming chore of filing. Timber land owners should begin considering tax treatment of income, expenses, and general items like cost-share payments and estate planning. Linda Wang and John Greene with the US Forest Service offer a comprehensive of summary of items especially important to forest land owners. Let us know if we can mail you a copy. Call (865) 974-7977.

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Special Capital Gains Rates for 2008-2010

Timber sale income is taxable whether you receive a 1099 or not. The income however, generally qualifies for capital gains treatment, often long-term capital gains treatment which means lower tax rates; maximum 15%, and this year and 2009, 2010, 0% capital gains rates for persons in the 5 and 10 percent ordinary tax brackets. That's right **no capital gains taxes** are applied to long-term capital gains which when added to your ordinary income fit under the ceiling for the 15% bracket for ordinary income (\$32,550 for single taxpayers, \$65,100 for married taxpayers filing jointly).

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Cost or Other Basis

It is important to understand this phrase when you have to deal with it when filing income as a capital gain. It's important because it is an opportunity to reduce the amount of the capital gain which is taxes.

Cost is any amount that you spent associated with conducting the timber disposal/sale. Typical costs are payments to consulting foresters, lawyers and other associated legal fees, and expenses for paint, flagging, and travel.

These costs are added to your basis in the timber. Presumably the money you or and ancestor paid to obtain the timber has already been taxed when it was "made". Therefore if we keep up with that amount we are allowed to deduct it from the amount that our capital, in this case the timber, has made during the time that we have owned it.

Timber basis is explained in the publication at the following website:

<http://www.utextension.utk.edu/publications/pbfiles/PB1691.pdf>

Your timber basis generally depends on how you obtained the timber and land either thru purchase, inheritance or as a gift. Your basis also depends on how long you have owned the timber and/or land. Timberland that has been owned for a decade or more may have a basis that is a fairly modest amount relative to what the timber is worth today. Taxpayers are allowed to calculate a basis retroactive, which means that records or calculations can be used to determine the value of the timber when it was obtained however long ago. It is important to note however, that the value must reflect the amount and value of the timber on the day of acquisition. Professional foresters can conduct growth studies and market analysis required to determine historical timber values. Although this work can be done and the fees added to the timber basis. Landowners are advised to consider the tax benefits to be achieved versus the cost to determine and old basis.

It is important to note that costs associated with the sale can be deducted whether you have a basis or not. It is likewise important that neither of these, cost or other basis is required to qualify for long-term capital gains treatment of timber income.

If we can help with your timber tax issues let us know.

DEPARTMENT of FORESTRY, WILDLIFE & FISHERIES

2431 Joe Johnson Drive
274 Ellington Plant Science Bldg.
Knoxville, TN 37996-4563



E-mail: <http://fwf.ag.utk.edu>
Telephone: 865-974-7346
Fax: 865-974-4714

EXTENSION FACULTY AND STATE SPECIALISTS

Dr. Keith L. Belli, Professor and Department Head
865-974-7346, kbelli@tennessee.edu
Dr. Wayne K. Clatterbuck, Professor, Silviculture & Forest Management
865-974-7990, wclatterbuck@utk.edu
Dr. Craig A. Harper, Professor and Extension Wildlife Specialist
865-974-7346, charper@utk.edu
Dr. Patrick D. Keyser, Associate Professor, Native Grasslands Management
865-974-0644, pkeyser@utk.edu
Dr. Adam Taylor, Assistant Professor, Forest Products
865-945-1125, mtaylo29@utk.edu
Dr. David C. Mercker, Extension Specialist I, Forestry Specialist
731-425-4783, dcmercker@utk.edu
Mr. Larry A. Tankersley, Extension Associate, Forestry Specialist
865-974-7977, ltanker1@utk.edu
Extension Associate in Wildlife — Vacant
Fisheries Specialist — Vacant

FISHERIES FIRST RESPONDERS/AGENTS

East Tennessee Region

Mr. Kelli Amonett, Morgan County
423-346-3000, damonet1@tennessee.edu

Middle Tennessee Region

Mr. Creig Kimbro, Grundy County
931-592-3971, ckimbrow@tennessee.edu

West Tennessee Region

Mr. Ron Blair, Henderson County
731-968-5266, rblair3@tennessee.edu

EXTENSION PROFESSIONAL STAFF

Ms. Kelley Zophy, Extension Coordinator, Web-Based Learning Center
865-974-2946, kzophy@utk.edu
Ms. Misty Huddleston, Extension Assistant, Web-Based Learning Center
865-974-1568, mhuddles@utk.edu
Mrs. Mirian Wright, Administrative Assistant
865-974-7346, mwright@utk.edu

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