

Director's Page

Buzz Williams, CRWC Executive Director

The local newspaper published an article about our recent horse logging project. A friend saw it, along with a picture of me standing next to a big log we had just brought out of the woods. "There is something wrong with this picture" she said, obviously referring to her perceived image of me-the "environmentalist." In one sense she was right. Yes, it is very unusual for a conservation organization like the Chattooga River Watershed Coalition to run a timber

harvesting operation on the national forest. Conversely, the single tree selection that we conducted at Brown Gap was exactly the kind of timber harvesting operation we had been trying to get the Forest Service to prescribe, ever since our organization was founded in 1991. When I explained to my friend that the timber harvesting project was our way of demonstrating a method of forest management which sustains a native forest and that also provides jobs and high quality wood products to the local community, then she understood.

In the conservation

business, public perception is everything. It is one thing to endorse the concept of humans living in

harmony with nature; implementation of this land ethic is the hard part. Whether it is the landowner looking for the best way to harvest timber on private land; a citizen who wants to participate in the planning process for Forest Plan revisions; or, a person who wishes to vote for a public servant based on their conservation ethic, the question is simply: who do they trust?

As the debate exists today, ideas about conservation vary greatly, with two camps at the extremes and a detached majority in between. At the one extreme is big business, which has captured congress through campaign financing. The Forest Service is currently subject to this camp through budget appropriations. On the other extreme is the professional "environmental" community who thrives off the conflict. The greater the need for reform, the more

"There is something wrong with this picture... photograph by Kevin Fitzpatrick

foundation money pours into their program.

Some examples to illustrate include the infamous "Salvage Rider" introduced in 1995 and sponsored by Congressman Charles Taylor of North Carolina, which charged the Forest Service to increase timber quotas to "improve forest health." At the other end of the pole, "environmentalists" created the "zero-cut" concept for public land management. The Salvage Rider was not about forest health, it was about filling the bank accounts of timber companies. Neither is

zero cut about not cutting trees, but rather, about stirring rhetoric. The result is polarization and a distrustful public, leading to no action.

The Brown Gap Timber Sale was about a real, palpable action aimed at implementation of a good land ethic. As a result, the great majority of people who came to our job site were quite-impressed with the operation. Trees were harvested with minimal impact on the soil and the surrounding forest. wood products were manufactured, jobs were created, and there is a healthy forest still standing on site.

If indeed Aldo Leopold was right about the definition of conservation

being humanity's ability to live in harmony with nature, then we must break the gridlock that now surrounds the debate over how this harmony can be achieved. Depolarization is the answer. Consequently, the solution lies with the majority between the extremes. This will garner public trust, and action. That is why we decided to stop talking about conservation for a few months, and take action in a way that clearly demonstrates a "real world" conservation ethic. The Chattooga River Watershed Coalition is working towards building trust and stimulating action by the public for true forest management reform. In this issue of the Chattooga Quarterly, we hope you enjoy our account of "phase one" of the Brown Gap Timber Sale.





Owls

Dana Brown, Director of Educational Programs, SC Center for Birds of Prev.

At dusk a couple months ago, I set a cardboard carry-kennel on the deep green lawn of a small park. Live oaks and a tidal the owl had died of stress, and I am sure that he did. Surely, a night of frantic effort took a great toll. Would these owls have fared better had they been freed from the nets to fly, and spared the added burden of travel, touch, and confinement? We don't know.

We do know

that once

owls have

successfully

survived the

contact with

world poses

the greatest

threat to

survival.

The owl

hatchling is

a fine meal

raccoon or

another bird

of prev, and

starvation

looms until

their

for a

the human

precarious

first year,

hatched

and

creek made the place magical; vet. the mosquitoes made me want to go home. The Great Horned Owl inside the box was home. She (or he?there is no way to tell, just by looking) had been found that morning, snared in the soccer net at a nearby playground. An examination at our clinic showed no injuries, so we

wanted to get the owl home as soon as possible.

So there I was. The owl was supposed to fly up, out, and away. I opened the box and took a seat at a respectful distance. Nothing happened. The Blue jays arrived, raucous and bombing. Still nothing. I approached and tipped the owl onto the grass. Even as I hoped she would come to herself and fly, I knew she was dying.

A few weeks earlier I had taken "Cotton," a Great Horned Owl, to visit an elementary school science class. Cotton's injuries-from colliding with a car-had healed, but not well enough to afford her her freedom. Cotton's perch is onefooted, and to the spectator's eye, there are differences between her good and bad sides. Still, she's magnificent to see.

After our visit, the students found a Great Horned Owl in their school's soccer net. Similar to the other owl trapped in the play ground soccer net, the post-rescue exam showed no discernible injuries. We kept him overnight, and the bird was found dead during morning rounds. We told the children that

Great Horned Owl in flight photograph by Dana Brown

the young bird becomes a seasoned hunter. But adult Great Horned Owls, for example, have no natural

predators. Ninety-six percent of their deaths are related to humans. They are hit by cars; shot; collide with power lines; entangled in fishing line; or, perhaps caught in soccer nets.

Owls, like other birds of prey, have been actively persecuted by humans. For example, a farmer whose chickens were disappearing surmised that the owl residing in the barn was eating them. So, still on his perch, the bird was an easy target. It is a relatively recent development that enough has been learned about owls to understand their economic value.

Examining owl pellets has been one way to gain insight into the habits of these birds, whose nocturnal habits have made learning from observation difficult. As many school children know, owls eject the parts of a meal they are unable to digest. An owl that has eaten a mouse will caste the bones in a roughly spherical or cylindrical packet that is covered in fur. If he has dined on a bird, feathers will provide the wrapping. Observers now calculate that a Barn Owl consumes about four mice a day, or roughly 1,500 in a year. During a ten-year life



to its talons. Owls are designed to muffle sound.

During presentations I sometimes put "Sienna," a reddish-

and weighs about one-quarter pound. Sienna is a crowd

pleaser. She rouses, castes a pellet, and turns her head "all

head makes a 360 degree turn. Instead, she can turn 180

the way around." In fact, neither Sienna nor any other owl's

brown Screech Owl, on a table perch. She's eight inches long

Owls

span, one owl consumes about 15,000 mice. The advantages are obvious.

Yet, daily proximity with "Cobo," our resident Barn Owl, has given me greater appreciation for how these birds could become the subject of superstition and fear, and be seen as portents of illness or death. Cobo's black eyes are luminous against stark white feathers. On his head, and framing his

heart-shaped facial disks, is a heavy dusting of charcoal grev set in delicate cinnamon. Disturbed, Cobo's stooped sway is reminiscent of dementia in humans. Angered, his scream sounds like a horror movie heroine scared out of her wits. The noise has set my neck hairs on end on a brilliant afternoon. I can't imagine its impact in a darkness not benetrated by electricity.



Close-up of an owl's primary flight feather, which has a serrated edge to eliminate noise. photograph by Dana Brown

more room in their heads than their brains do, and enable them to see in the dimmest light. But owls cannot move their eves from side

primary importance in all owls. The concave ruff of feathers surrounding each eye hides the owl's ear openings. These feathers also channel sounds to the inner ears.

Though the acute hearing of Barn

Owls, who can hunt successfully in

To use their hearing, owls must approach prey quietly. I continue to be awed each time I enter an owl flight pen and watch them leave the nearer perch to swoop to the nextsoundlessly. How can such big birds make so little sound?

The first primary feather, or flight feather, on each wing has a serrated edge. This eliminates the noise that would be created by air flowing over a smooth surface. Compare the velvety feel of an owl's wing to the more satiny feel of a hawk's, or notice how the feathers on a Great Horned Owl's legs extend

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through west-so the head seems to go full circle. Owls, who appear to have no neck at all. can do this because they have the flexibility afforded by fourteen vertebrae. which is double our

degrees from

north to south

through east; then, come

back to north

another 180

and turn

degrees

seven. Owls' huge

eves take up

complete darkness, has been the most studied, we know hearing is of

to side; in order to look around, they must turn. Turning just the head, rather than the body, is an effective way to escape notice—something that is important to an owl, whether she's hunting or resting.

When I returned the soccer net owl to her park, she was quickly mobbed by jays. Songbirds mob predators. A good way to avoid this annoyance, or a more dangerous threat, is to avoid detection. Sienna, safe on her table perch, shows perfect "I'm not here behavior" when I bring a Red-tailed Hawk to a presentation. She becomes still. She lifts her ear

Brown Gap Timber Sale

Buzz Williams

The team of big horses blew long shafts of steam from their nostrils as they marched in unison out of the trees, pulling the knurled white oak log onto the log yard. The long reins Forest using a type of timber harvesting called "single tree selection." We had been promoting this method of logging for years, because it closely mimics the natural processes of tree regeneration in the forests of the Southern Appalachian Mountains. With single tree selection, trees of all sizes are

trailed on the ground behind. From thirty yards up the skid trail Mike's voice rang out, "Whoa!" The horses had made the trip down to the log yard so many times now that sometimes Mike just let them "have their head." while he walked a little slower to catch his breath. He deserved it. We were nearing the end of the job, and Mike and his team of Belgian draft

horses had brought almost 75,000 board feet of timber down out of the woods—enough to



Using single tree selection, Mike Barrick and his team of Belgian draft horses logged 75,000 board feet of white pine timber, 15 cords of firewood, and 10 tons of pulpwood from the Brown Gap Timber Sale. photograph by Nicole Hayler

harvested to extract high quality saw timber and improve stand composition. Yet, at the same time much of the forest canopy is retained, in layers from the dominant large trees, down to the shrubs and herbaceous understory plants on the forest floor. Retaining and cultivating a more diverse

forest habitat results in a healthier forest ecosystem.

Executing a single tree

build five houses. In addition, he harvested nearly fifty pick-up loads of firewood and ten tons of pulpwood. We started working together on the Brown Gap Timber Sale in September, but now the winter rains were setting in and we

needed to finish the project soon to meet Forest Service requirements.

The Chattooga River Watershed Coalition (CRWC) purchased the Brown Gap Timber Sale in a "first of it's kind" collaborative project between the USDA Forest Service and a non-profit conservation organization. The project's goal was to log 10 acres of the Nantahala National



Trees were skidded through the woods at lengths of up to 24 feet. photograph by Nicole Hayler

selection harvest requires more skill and care in order not to damage the residual "leave trees;" therefore, it is a slower process than, for example, clearcutting. Because there is a great demand for wood products, many timber companies have

companies have switched to more intensive methods of timber harvesting (seed-tree, shelterwood and clearcutting) where most or all of the forest canopy is removed. Nowadays, one of the big questions about single tree selection is whether or not it is economically feasible: that is, can wood products produced in this manner compete in a market place geared to maximum

fiber production?

Originally, everyone thought we proposed the horselogging sale, but it was actually the Forest Service's idea. the Blue Valley Experimental Forest. Yet, from the beginning it was clear that our objectives were not exactly the same. The Forest Service was more interested in experimenting with the regeneration white pine, a prime

merchantable timber tree.

our forest management

on the "Chattooga

while Dr. Zahner and I were focused on the restoration all

native forest species. Many of

recommendations were based

Conservation Plan," which

the Coalition produced in

1997. Here, we had used

Geographic Information

management model that

adhered to principles of

management activities in

considers all forest

Systems to help create a forest

conservation biology, which

light of how the area fits into

the whole landscape. Brown

"core area." As described in

our conservation plan, a core

area should "be left alone to

Gap lies in what we call a

The project was the brainchild of Jim Kidd, who works in the Highlands Ranger District office, which lies in the Chattooga River's headwaters in North Carolina. Jim wanted to test the feasibility of using horses to log in sensitive areas. But the project area was intimidating: parts of the tract were steep, and the trees were big. Two of the white pines (Pinus strobus) that were marked for harvest were 38 inches in diameter at breast height (dbh). When nobody stepped forward to bid on the sale, I began exploring the idea of negotiating modifications to the sale, to make it more environmentally sensitive. One of the



Most likely, the Brown Gap Timber Sale area was an old pasture. When the land was abandoned, the old fields provided a perfect place for the propagation of white pine seedlings, which thrived and matured into an even-aged stand of big trees. photograph by Nicole Hayler

Coalition's goals is to seek ways to work cooperatively with the Forest Service. If the Coalition purchased the Brown Gap Timber Sale, it would give us a chance to put our ideas mature into viable interior forest, and old-growth habitat." In our plan, no new roads would be built here, and other roads would be closed or converted to backcountry trails.

into action while creating an opportunity to build better relations with the Forest Service. I also began looking for a logger with experience, and frankly, a little "metal."

Fortunately, Dr. Bob Zahner is a member of our Board of Directors, and also a respected forester and educator. Bob was enthusiastic about the project, and helped negotiate the terms of the sale. Forest Service scientists participated in these negotiations as well, since the sale area was situated in



Wood products from this operation have been sold in the local market place, while utilizing local services. This creates jobs, resulting in a healthier economy in the community. photograph by Barrett Walker

Timber harvesting would be allowed, but only to expedite restoring the native forest, and where roads already exist.

The Brown Gap Timber Sale area was probably an old farmstead, that previously was cleared for pasture. When the land was abandoned at the turn of the century, the old fields provided a perfect place for the propagation of white pine

seedlings, which thrived and matured into an evenaged stand of big trees. Dr. Zahner believed that if

some of the white pines were harvested, this would release the native hardwoods coming up in the understory,

allowing a more natural stand to develop. Since a road already existed in the sale area, we felt this was a good place to negotiate an opportunity to implement the recommendations of our conservation plan. After two years of sporadic negotiations, the Forest Service agreed to several changes from the original timber harvest. They agreed to drop a small portion of the sale that was located on a steep slope near a riparian area. They also allowed the retention of a larger percentage of native hardwoods, which would increase native biological diversity, as well as some of the larger white pines, for old growth.

We had other objectives, too. One of our primary goals for the Brown Gap Timber Sale was to prove that the small operator was ideally suited for timber harvesting projects that resulted in an intact native forest, and that the wood products from this project could compete in the local market place, while utilizing local services. This would result in a healthier forest, and a healthier economy in the community. Small, community-based forest product industries are ideally suited to conduct single tree section operations, because oftentimes they use smaller equipment that allows them to maneuver through the forest and cut selected trees without doing damage to the residual trees. In the past, most all timber sales on our national forest have been large sales, sometimes spread over hundreds of acres. They are cut by large mechanized equipment, such as "feller-bunchers," which harvest a great percentage of the forest canopy. This type of timber harvesting usually includes regenerating trees through natural seeds and stump sprouts, or hand-planting trees (usually



The Brown Gap Timber Sale project included a two-day workshop where participants learned about using the "skipper." photograph by Kevin Fitzpatrick



Chris Kempton sampled the aquatic community of a stream near the log deck, to monitor the impact of logging-related sediment—if there was any. photograph by Nicole Hayler

pine trees) of the same age. With these large-scale operations, loggers must produce sometimes as much as

10,000 board feet in a single day's operation. just to make enough money to sustain payments on behemoth skidders and 18 wheel logging trucks. Here, the skid roads accessing the forest are akin to highways. Many of the wood products harvested by the big operators are trucked to distant points outside of the local community for processing, and sometimes even overseas. So, it seemed to us that the Brown Gap Timber Sale was

the ideal place to test our theory.

On January 14, 1998, the CRWC signed a contract to purchase the Brown Gap Timber Sale. I hired Mike Barrick to log for the Coalition, because I liked his methods. We found Mike in Ohio, and he was a full time logger. He had learned how to log with horses from his father, and from the Amish people who lived near his farm. He used a mechanism called a "skipper" which ' looks like a square sled about four feet long. It was amazingly simple: two runners were made of Black Gum, which is a strong and light wood that doesn't split easily. The steel runners on the skipper's bottom were made of discarded truck springs. A light, case-hardened logging chain was doubled and then passed through a metal ring mounted to the skipper's front cross member, providing a point of attachment for the "double tree" behind the horses. The tail ends of the chain ran under the skipper and up over the top of the log, where they hooked together. When the horses pulled forward, the chains cinched down on the log, binding it to the sled. But getting the logs on the sled was tricky. Mike would pass a chain under the log, and attach one end to the cross member of

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ground. This enabled

the horses to pull more

weight, because the

skipper slid forward

logs would on the

ground, and could

the skipper would

with less friction than

"skip" over debris and

prevent the leading end

of the log from plowing

up the soil on the skid

trail. This method also

sawyers happy because

a clean log will not dull

or break saw teeth.

kept the logs cleaner.

which made the

stumps. In addition,



To process the logs the CRWC employed Terry Ketterman, a local sawyer who owns a portable Woodmizer bandsaw mill. A band mill saw blade is narrower than a tircular saw mill blade, and consequently yields less sawdust and more lumber, or "overrun," as it is known in the trade. The raw logs were sawn into all sizes of dimensional lumber, with the specialty product being large beams and wide boards. Here, a value-added product was created, which was sold in the local market place.

The mill was set up on the log deck, which eliminated the extra cost

of hauling raw logs to a distant site for processing.

photograph by Rick Arflin

the skipper. The horses were positioned perpendicular to the log, and hooked to the other end of the chain. As the horses pulled forward, the chain rolled the log onto the sled. Thus secured, the skipper got the butt-end of the log up off the

were three of us on the job that day.

Valley, and where every hollow tree was that might be home to the next old 'coon for his bluetick hounds to chase. Walter and his family had been in the Highlands area for generations. He taught and land use history of the area in such a way and tickled our funny

bearable. Walter and I were cutting up firewood that Mike brought out with the horses. We weren't even

It was January 5th, 1999, and the temperature had warmed up to 4 degrees, from a low of

zero the previous night. Several other logging operations in the Blue Valley/Highlands Plateau had shut down, mostly due to trucks that wouldn't crank in the cold. But it was one of the best days we had had for logging in weeks. There

using the skipper that day, because the ground was frozen solid and the logs slid along easily without tearing up the

soil. Nonetheless, it was hard work. Walter was stout for a

photograph by Nicole Hayler

Besides Mike and me, there was Walter Wilson: local preacher, barber, storyteller, and 'coon hunter. Walter knew every inch of Blue

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us about the cultural that it made us wiser, bones to boot. We needed his positive attitude on such a day—it made the cold

Pinus Strobus: Eastern White Pine

Reprinted with permission from The National Christmas Tree Association and Windstar Wildlife Institute

Beginning with the British colonists, Eastern white pine has proven to be one of the most important and desirable tree species in North America. It is a truly magnificent

tree, attaining heights of 80 feet or more at maturity, with a diameter of two to three feet. Thus, white pine is considered to be the largest of all pine species found in the United States. Until about 1890, it was considered the tree of choice for most commercial uses.

In 1761, England claimed all white pines 24 inches in diameter and larger for ship masts for their naval



Eastern white pine bark and needle cluster

fleet, and required the colonists to obtain licenses to cut any of these trees. The pines were identified by blazing a broad arrow on the trunk. Because of the colonists' general dislike of British rule, this "broad arrow" policy was one

large amounts that it forms a dense dust. Pollination occurs in the spring, and is assisted by wind.

Appalachian Mountains. White pine is the state tree of

The leaves (needles) are soft, flexible, and bluish-green to

of five. Needles are $2\frac{1}{2}$ to 5 inches long, and are usually

silver-green in color, and are regularly arranged in bundles

The seed cones are generally 6 to 10 inches in length, and

more source of friction between the two.

White pine has a broad geographic range, growing from Newfoundland to Manitoba, and through the northern United States to northern and eastern Ohio. and then southward along the Appalachian Mountains to northern Georgia and North and South Carolina. It can be found from sea level in its northern range, to 5,000 feet in the



Historically, white pine has been one of the most valuable lumber trees. The wood is soft and light, and warps and checks less than many other species. It has been adapted to a variety of uses, as seen here in this traditional-style log cabin. photograph by Nicole Hayler

normally are produced in greater numbers as the tree matures. Cone scales are rather thin and never have prickles. Cones also have exudations of a fragrant resin (sap). The seeds inside the cones are winged, like those on a maple tree. These seeds can be readily harvested in the fall, and are relatively easy to germinate indoors if you are interested in

starting your own seedlings.

shed at the end of the second growing season. Both male and female flowers (strobili) occur on the same tree. Pollen generated from small. clustered, staminate (male) cones at branch tips fertilizes the pistillate (female) cones, in which the seeds will mature. The pollen of the staminate is yellow, and is produced in such

Maine and Michigan.

Pinus Strobus

Bark on young trunks and branches is smooth, and tends to be greenish-brown in color. On older trunks, the bark becomes dark gray and shallowly fissured. Limbs tend to persist, particularly on trees grown without severe competition.

White pine is intermediate in shade tolerance, and is commonly associated with Eastern hemlock and various northern hardwoods. It is found on many different sites including dry, rocky ridges and wet sphagnum bogs, but best development is on moist, sandy loam soils. Extensive logging has destroyed most of the original pine forests, but the species is aggressive in reproducing itself and may be found throughout its original range. Due to its desirability and relative ease of nursery production, it has also been a major species for reforestation in the northeastern United States and Canada. Most propagation is by seed, although the species grafts quite easily. Considerable variation in rooting ability has been observed. About 70 cultivars have been developed for commercial use.

Uses of white pine are many, and historically it has been one of the most valuable lumber trees. The wood—soft and light—warps and checks less than many other species and has been adapted to a variety of uses including cabinets, interior and exterior finish, and carving. Another use of white pine is as a Christmas tree. Christmas tree farms are a booming industry, and the relatively short time period required to grow a six foot tree makes white pine the species of choice. Still other uses include folk medicine; for example, colonists used the inner bark as an ingredient in cough remedies, and early Native Americans used the same as a food.

This species of conifer is a great food and shelter source for a variety of wildlife species. In fact, no other conifer provides as much shelter and food. From the needles to the sap, the tree provides for browsers like turkeys and grouse, cavity-nesters such as Northern flicker and owl species, and seed-gatherers like squirrels and the Titmouse. Even the Chickadees, who hang from the cones to pluck the seeds, and sap-loving Yellow-bellied sapsuckers that dine on the extruding ooze (sap), utilize white pines. This tree is deeply rooted in its ecological niche, serving generously both human and wildlife needs.



Chip Mills: The New Threat to Southeastern Forests

Danna Smith, Director, Dogwood Alliance

Oriented-strand fiber board ("chip") mills can process as much wood in one month as an average-size sawmill consumes in an entire year. In the Southeast, this tremendous consumption capacity forces chip mills to draw raw material from a large area—typically a 75 mile radius—and has encouraged the management of forests specifically for chipping material. This brand of forest management has been characterized not only by shorter rotations, but also the proliferation of clearcutting, which produces more wood per acre for less cost. The rapid depletion of forests by chip mills has had devastating impacts on the diversity of the region's forestdependant economy. Some sawmills have been forced out of business. Reports show that softwood cutting is exceeding growth, and that hardwood shortage is imminent.

Despite these ominous trends, studies indicate that the best potential for job growth in the forest products industry lies with solid wood manufacturing (*i.e.* sawmills). One reason is that sawmills and other solid wood firms employ twice as

The chip mill industry prides itself on "efficiency"chipping more volume in less time for less cost. While this may be good for shortterm profits, it is not good for the economy, or the forest. According to available information, chip mills in the Southeast produce about 317,250 tons annually, equivalent to more than 8,700 acres of forest clear cut every year for each mill. With at least 140 chip mills operating in the region, the annual loss is estimated at more than 1,500 square miles of forests.



With at least 140 chip mills operating in the Southeast region, the annual loss is estimated at more than 1,500 square miles of forests. An aerial shot of this upstate South Carolina chip mill shows raw logs stacked high in a circle around the crane, which feeds them into the chipper. Then, the wood chips are transported via conveyor belt into the waiting railroad cars. Note that only four automobiles are in the parking lot—the labor force for this operation.

pulpwood segment per unit of wood harvested, which means more jobs per tree. For example, a box and pallet company in North Carolina processes 13 truck loads of trees every day and employs 90 people, while a chip mill company that chips 70 truckloads every day has only 8 employees. In another example. furniture manufacturers in Alabama generate 40 jobs for every million dollars invested, while chip mills contribute only one job for every million dollars invested.

many people as the

In the Southeast, private lands provide a major source of raw material for chip mills. Although there are many voluntary forest-related programs, the region has virtually no mandatory regulations that apply to the management of private forest land. Comprehensive forest protection legislation and regional sustainable forestry plans, which are effective in some states, have yet to surface in the Southeast. While laws to ensure adequate reforestation following harvest are in place in some southern states, many lament that these regulations do not address other critical ecosystem components. Differences like these are largely attributable to the fact that chip mills use large machines and very few people to process trees into chips. Sawmills and secondary producers (such as furniture makers and flooring manufacturers), however, are more dependant on labor for their finished products.

Moreover, the few jobs created by chip mills are relatively low paying (ranging from \$8 to \$14 per hour) and no value is added to the resource before it leaves the community. The value-adding jobs are exported up to hundreds of miles away in another state. Profits and better-paying management jobs derived from the community's forests end

Chip Mills

up far from the community.

For nearby communities, the presence of a chip mill in an area means noise and dust pollution, hazardous truck traffic on rural roads and bridges, real property de-valuation, and water quality degradation. In addition, local tax money is used to accommodate chip mill facilities. Hundreds of trucks a day deliver trees to a chip mill. Road improvements and maintenance are at the community's expense. Chip mills seek millions of dollars in tax credits to build the facilities, including road construction and tax-free construction loans.

Despite these legitimate concerns, citizens faced with the threat of a chip mill have little or no legal recourse to get local governments or permitting agencies to deny permits to the chip mills. To compound the problem, large corporations spend both time and money convincing local authorities and politicians that citizen's concerns are unfounded, and that the chip mill will contribute jobs and money to the local economy.

Sawmills and other solid wood firms employ twice as many people as the pulpwood segment per unit of wood harvested, which means more jobs per tree. For example, a box and pallet company in North Carolina processes 13 truck loads of trees every day and employs 90 people, while a chip mill company that chips 70 truckloads every day has only 8 employees. Activists in the Southeast are calling for action to resolve the chip mill problem. Some of the steps they are proposing include a comprehensive. regional study of the impacts of chip mills; a moratorium on new mills; annual US Forest Service inventories of timber supplies; a ban on importing and exporting raw forest products; incentives for landowners to selectively manage forests on long rotations; and reform of the chip mill permitting process. Even so, chip mills are, at least in the near term, a permanent fixture in the Southeastern landscape. The impacts of such large scale industry will clearly be felt for decades to come.

Article excerpted from Chipping forests and jobs: A report on the economic and environmental impacts of chip mills in the Southeast. The complete report is available from Dogwood Alliance at 828-883-5889 or via email at dogwood@essential.org*

Chip Mill Update and Request for Member Action

Last September, a letter was sent by fourteen environmental and civic organizations to the then Governor of South Carolina, David Beasley, asking that he look into the problems associated with clearcutting of forests to supply chip mills. The Governor did not respond meaningfully. Now that the political situation has changed and there is a new Governor from the opposite party, there is a consensus among the groups that the letter should be resent (with some additional information) and perhaps this time it would generate a more concerned and productive response.

The new letter will address many issues associated with this industry, including the recent actions by South Carolina's Department of Health & Environmental Control regarding the permit for the Norbord mega-chip mill in Laurens County. The letter will be asking the Governor to: 1) place a moratorium on the licensing of any new high capacity wood chipping facilities until a comprehensive study of cumulative, secondary, and off-site environmental and economic impacts of the existing facilities in South Carolina is undertaken and completed; 2) that a thorough study of the potential logging impacts of the newly permitted Norbord Industries chip mill in Laurens County be initiated as a case study for launching a state-wide chip mill assessment; and 3) that the State of South Carolina partner with federal agencies (EPA, USFWS and others) who are now considering a region-wide study to examine the problems associated with industrial scale logging.

What you can do is write to Governor Hodges requesting he initiate these recommendations, and state your concerns about the depletion and degradation to the environment and communities that this industry leaves in its path. The Governor's address is: Governor Jim Hodges

Governor's Office Wade Hampton Building 1st Floor Box 11369 Columbia, SC 29211

Oconee Nuclear Station Update

Nicole Hayler

"If self preservation is elemental in human nature, so is a capacity for accepting risk when something is wanted enough. Portuguese sailors traveled 15,000 miles to fill small wooden boats with oranges and cinnamon. The cravings of the race are closer to home now, and the people...are locked in solid to a requirement for electric power, perhaps at risks that would beggar the exploits of the merchant Portuguese."

-John McPhee, The Curve of Binding Energy, 1973.

On September 10, 1998, three members of the Chattooga River Watershed Coalition (CRWC) filed a Petition to Intervene in the relicensing proceedings for the Oconee Nuclear Station¹. Since the entire Chattooga River watershed lies within the nuclear station's 50-mile evacuation zone, naturally we were interested when Duke Energy Corporation announced they were applying for a 20-year extension of the nuclear station's operating license, which currently is set to expire in 2013. We filed the Petition because we were concerned about "common sense" issues, such as plans for managing the facility's highly toxic spent fuel, now stored on site in spent fuel pools that are near full capacity. We were also concerned about the integrity of the old reactor vessels and their containment structures, as well as the increased risk to public health and the natural environment from continuing to operate the aging facility beyond its planned 40-year life span. By filing a Petition, we introduced these concerns into the only forum available for citizens to have a voice in the resolution of these important safety issues.

The venue for this forum is "in-house," as it is controlled by the Nuclear Regulatory Commission (NRC). Here, the agency invokes a rigid adjudicatory process, and appoints members of its bureaucracy to the Atomic Safety and Licensing Board Panel, who serve as judges in deciding the merit of the issues raised. The CRWC was the only party to meet the filing deadline for submitting specific issues to the hearing docket for the Oconee Nuclear Station relicensing proceedings. It is likely that most people were unaware of the September 10th deadline, as it appeared in an obscure notice in the Federal Register. Later, a public meeting on October 19th in Clemson, SC-over a month after the filing deadline-was sponsored by the NRC and Duke to inform citizens about the potential relicensing of the nuclear station. The timing of these events was curious, as it obviously was a barrier to encouraging meaningful public participation.

The outcome of the Oconee Nuclear Station relicensing proceedings has the capacity to affect virtually everything within the bounds of the Chattooga watershed, immediately

¹These individuals requested that the CRWC represent their interests in the relicensing proceedings, which the CRWC's Board of Directors approved.

and for quite some time into the future. For instance, if the relicensing application is denied, then alternative energy sources would need to be developed to meet our rapacious appetite for electricity. Yet, if the relicensing application is approved, then everyone within the 50-mile evacuation zone will continue to live with the specter of a worst-case scenario: the event and repercussions of a major radiological accident. Meanwhile, accidental releases of even relatively small amounts of radiation into our air and ground water may manifest negative health effects on the surrounding communities. However, we don't know, because comprehensive scientific studies for populations within the 50-mile evacuation zone have not occurred.

In order to participate in this important occasion, citizens must adhere to the exacting rules created by the Nuclear Regulatory Commission for their litigation-oriented process. The most recent version of these rules was published in the Federal Register on August 11, 1998. They are recent because the potential relicensing of our nation's aging nuclear power plants is new and uncharted territory. The most prominent emerging issues are engineering strategies to manage the years of "wear and tear" on nuclear reactor operating systems, such as cracking of the concrete containment structures, and cracking and embrittlement of the reactor vessel. The management of large quantities of spent fuel, which has been called "the world's most poisonous substance," is another huge and contentious problem. Nobody wants to have high-level nuclear waste permanently stored in their community. To date, these issues are largely unresolved. Indeed, in order to side step the nuclear waste issue, the NRC has recently declared that nuclear waste management will be completely eliminated from the scope of the Oconee Nuclear Station's relicensing proceedings.

Represented by such organizations as the Nuclear Energy Institute (NEI) and the Babcock and Wilcox Owner's Group (B&WOG), the nuclear power industry has been preparing for the relicensing of their power stations for several years. Since nuclear power stations are so expensive to build and operate, utility companies such as Duke Energy Corporation have a keen interest in recouping their start-up investment, and maximizing their profit margins by prolonging the station's life. Thus, during the past few years the NEI and B&WOG have prepared many topical reports that are intended to provide technical justification for relicensing. For example, one report addresses the theoretical management of aging effects for the reactor vessel; and another, the theoretical management of aging effects for reactor containment building. The Nuclear Regulatory Commission's technical staff is charged with reviewing these reports, which usually means' requesting additional information on their contents, and then giving them their final stamp of approval. The Executive Vice President of Duke's Nuclear Generation program has stated that the "final

Oconee Nuclear Station Update

disposition of these reports is of paramount importance to the technical analysis and conclusions set forth in Duke's application for relicensing the Oconee Nuclear Station." Currently, this review process is incomplete. In spite of this, relicensing proceedings are on a fast-track forward. The NRC has mandated that the nuclear station's relicensing proceedings must be expedited, in order to avoid "injury" to the industry.

Duke Energy Corporation's renewal application, which is laced with cross references to the above-described topical reports, is also undergoing a like process of NRC review. Concerning the contents of the application, the NRC has issued a large number of Requests for Additional Information, totaling 349 individual requests to date. For example, the NRC's technical staff wants to know:

- ⇒ Why cracking of reinforced concrete elements, including reactor building internal structures, is not treated as an aging effect?
- ⇒ What is Duke's plan for managing the aging effects of corrosion of structural steel and rebar that is embedded in concrete, due to accumulation and ingress of water through concrete cracks?
- ⇒ Why thermal fatigue has not been identified as an aging effect for the components of the Containment Heat Removal System?
- ⇒ What is the aging management program for the reactor vessel flow stabilizers and the potential cracking of stainless steel weld cladding in reactor vessel forgings (whose functions are inextricably linked to the "integrity of the reactor vessel")?
- ⇒ What are the combined effects of high temperatures and radiation on the structural properties of: the reactor cavities; the steam generator cavities; the spent fuel (auxiliary) buildings; concrete walls; concrete reactor supports; steel supports; and, anchor bolts? And, what are the aging management programs for these effects?
- ⇒ Why new one-time inspection programs, which will verify the presence or absence of degradation to certain critical components, are not advanced in schedule?

The CRWC learned about these issues by examining primary source documents, including Duke's 1,600 page renewal application, and the NRC's 349 Requests for Additional Information. Then, we presented all of our concerns as a Petition to Intervene, which is the format required by the NRC's "rules of conduct" for their mandatory adjudicatory process. However, we believe that the NRC's clear intent to force litigation on these issues is premature, because the projected resolution of these and other important safety issues is timed to occur long after the NRC's rigid adjudicatory deadlines. Obviously, the NRC_ wants to dispatch their hearing process, in order to expedite license renewal. Duke Energy Corporation is a global energy business with more than \$20 billion in assets, and they have retained five lawyers whose sole goal is to have the CRWC's concerns dismissed from further consideration. Precedent indicates that the NRC is predisposed to serve the industry's interests, and will rule in their favor.

Meanwhile, on December 9, 1998, the national Better Business Bureau called on the Nuclear Energy Institute to stop running advertisements that "flatly assert" that nuclear power is "environmentally clean." Indeed, the potential relicensing of our nation's fleet of nuclear power stations cannot be disassociated from the fact that the generation of electricity in this manner is inherently risky, and produces lethal waste that will remain so for over 200,000 years. Furthermore, the enormous problem of managing the nuclear industry's cache of high-level waste, which includes over 40,000 tons stored at civilian nuclear power plants in 35 states, is now the taxpayer's problem.

Recently, the Supreme Court refused to protect the federal government from lawsuits filed by utility companies seeking damages over the government's inability to take charge of high-level nuclear waste. After 12 years and \$6.5 billion, the Department of Energy (DOE) is still trying to settle on a viable High Level Waste (HLW) repository. Numerous studies of the intended national HLW repository at Yucca Mountain, Nevada, continue to raise serious questions about the suitability of the site. Yucca Mountain also lies in an active earthquake zone, and the state's elected officials including every member of their congressional delegation, have vowed to fight against making Yucca Mountain the nation's high level nuclear waste dump. Now, the Department of Energy is worried that the Supreme Court decision will leave the \$15 billion federal nuclear waste trust fund "vulnerable to claims by nuclear utilities."

In our rush to plug in and switch on, it's time to stop and fully illuminate the salient issues surrounding our continued reliance on commercial nuclear power plants. The CRWC will persist in tracking these issues as they relate to the Oconee Nuclear Station relicensing decision, and relay this information to citizens. We all have a right to know, as well as an obligation to participate.



Letter to the Editor

October 19, 1998

Dear Buzz,

I read your Oconee Nuclear Station article [*Chattooga Quarterly*, Summer '98] with much interest. I have been working on nuclear power and waste issues for the last few years. Your article was very informative on many levels, but failed to address the severity of the problems with the nuclear industry and the proposed Nuclear Waste Policy Act.

I will start by saying that the nuclear industry fails to mention that at every step of the nuclear fuel chain (uranium exploration, mining, milling, processing, enrichment, fuel fabrication, power generation, and radioactive waste), more radiation is released into the environment causing damage to our ecosystem and human health. Exposure to ionizing radiation (the alpha, beta and gamma radiation that escapes from nuclear power plants) can cause a wide variety of cancers and birth defects in humans. It is becoming more apparent in the scientific community that one of the factors in the rise of breast cancer rates in certain areas

is due to radiation, as well as other industrial chemicals. In some cases, radioactive mill tailings from uranium mining in the Southwestern states have been left to blow in the wind and be washed into the rivers by rain. Not long ago, these highly hazardous waste tailings were sold to construction companies to use in building facilities, including schools and low income housing. The list of insidious activities goes on, but some of it we fail to see because it does not occur in our area.

Not only is nuclear energy not safe, it is not cost effective. Fossil fuels (including uranium) get subsidized by the US Government in the order of billions of dollars a year. The Rocky Mountain Institute reports that the US Government has been burning up to \$50 billion worth of tax dollars every year to subsidize the energy industries. Commercial nuclear power plants provide 20% of US electricity. This electricity can be made up with increased energy efficiency and renewables, which are cost effective and environmentally sound. Utilities that rely on fossil fuels want to keep doing business as usual, so there is no economic incentive to promote energy efficiency. For example, as late as 1990, the US generated 90% of the world's wind power and US companies dominated the solar industry, but fossil/nuke interests have bought up nearly all the patents and blocked advances.

When more than 30,000 metric tons of nuclear waste that remains hazardous for 250,000 years sits at commercial nuclear reactors across the country, it is obvious that we need to stop producing it.

The myth of safe nuclear energy has been literally sold to the American people for too long. When more than 30,000 metric tons of nuclear waste that remains hazardous for 250,000 years sits at commercial nuclear reactors across the country, it is obvious that we need to stop producing it. We do not know how to safely clean up this mess. The proposed Nuclear Waste Policy Act is not a solution to the problem, and would not insure that this deadly waste is not produced. This legislation would initiate 15,000 shipments of canisters filled with radioactive waste by rail and highway over a 30-year

> period. The waste would travel through 43 states and within 1/2 mile of the front yards of 50 million people. Each canister would hold the long lived equivalent of 200 Hiroshima bombs. The Nuclear Waste Policy Act would have congress set radiation standards 35 to 3,500 times higher than the Environmental Protection Agency's standards. The bill transfers liability and ownership of the waste from the utilities that created it, to the American people. The destination of the waste, Yucca Mountain, Nevada, is not only an active earthquake zone, but also the Western Shoshone sovereign territory. The people of this area, the Paiute and Western Shoshone, have been victims of

the nuclear machine ever since our government tested the atomic bomb, to the present battle over this legislation. Of any group of American people, the Native Americans have been the most negatively impacted by the nuclear industry. We must insist that representatives from all communities (scientific, indigenous, environmental, etc.) be enlisted to form a commission to study the proper treatment of the waste that has been created. More importantly, we must voice our opposition to the nuclear industry.

For information, you can contact: Nuclear Information and Resource Service 1424 16th St. NW, Suite 404 Washington, DC 20036 tel: 202-328-0002 email: nirsnet@igc.apc.org

Sincerely,

Amy Ray Indigo Girls



indigo girls

Owls continued from page 4

tufts, so that her head loses its typical rounded silouhette. She stretches out, so she could easily be confused with a tree branch, if one were around. And she squints her eyes, to hide the noticeable yellow of her irises.

Like all raptors, owls occur in low densities. That, and the fact that they are nocturnal, makes typical bird survey methods inadequate for judging their numbers. However, the conservation status for owls in our region seems to present an encouraging picture. Populations of Great Horned, Eastern Screech, and Barred Owls seem stable.

It is a relatively recent development that enough has been learned about owls to understand their economic value. Observers now calculate that a Barn Owl consumes about four mice a day, or roughly 1,500 in a year. During a ten-year life span, one owl consumes about 15,000 mice.

Barn Owls apparently have suffered from the disappearance of farming land; their numbers seem to be declining. Yet they do respond well to nest box programs.

Several years ago on a late afternoon run in my Atlanta neighborhood, I crested a hill and stepped into the easy descent. With a lull in traffic, the silence was exhilarating. Suddenly, at eye level only an arm's length ahead, a large feathered something passed just slow enough to see. A sharp squeal from the bushes, then a slight rustle, and all was quiet again. I stopped and turned. An owl disappeared into the trees. That glimpse of the wild—two blocks from home—put me in my place in the most satisfying and sustaining way. I hope a similar chance encounter will be a possibility for my son, and his children as well.





Great Horned Owl photograph by Les Turner

- Owls are predators they catch, kill and eat other animals in order to survive. This predation is neither cruel nor wasteful and has been going on for millions of years. It seldom upsets anything except perhaps a few people. An owl killing and eating another animal is no different from a robin eating a worm or a gull eating a fish. Although some owl species are diurnal (active by day), most hunt at night and are seldom observed by humans. Because of this nocturnal (nighttime) existence, they are little known and often misunderstood, even though some owls live their entire lives in close proximity to people.
- There are eighteen species of owls in North America. Some species, like the Screech Owl and the Great Horned Owl, live in one place year round; others, like the Saw-whet Owl and the Short-Eared Owl and the Burrowing Owl, will travel long distances.
- All owls are protected by state and federal regulations. It is illegal to capture or kill an owl; it is also illegal to possess an owl, living or dead, without the proper permits from local state governments, and the US Fish and Wildlife Service.
- Owls pose no threat to humans, although adult birds will defend their territory, and their young against any intruders, human or otherwise.

Book Review: The Appalachian Forest

Robert Zahner

As her subtitle implies, Chris Bolgiano's excellent new book is about the human and biological evolution of our Southern Appalachian landscape. It is about changes, almost always catastrophic, brought about by the historic.

and modern cultures who have lived here, and live here now. It is the story of both forest exploitation and forest preservation as told through the attitudes, prejudices, emotions, opinions and expectations of our mountain residents through the centuries. As Bolgiano says, "Heartbreak and hope, that is the story of Appalachia."

Every chapter of Bolgiano's book is a lesson in both human sociology and forest ecology. She uses the same engaging narrative technique that she used in her previous book, Mountain Lion. Historic portrayals are told through the accounts of people who witnessed events at the time, and modern episodes are related through interviews, often quiet intimate,

with the people that are the most closely concerned. Bolgiano passes no judgement on either people or events. She lets her subjects speak for themselves, from loggers to wilderness advocates, and through their conversations and writings the reader soon discerns their relationships with the Appalachian forest.

Bolgiano presents wonderful, brief biographical vignettes of a great many people, like Ernie Dickerman, who had major impacts on forest policy through out the Appalachians, and grassroots activists like Karin Heiman, Buzz Williams, and



The Appalachian Forest: A Search for Roots and Renewal By Chris Bolgiano Stackpole Books, 1998

Amy South, each making significant changes in forest practices in their own backyards. The contributions of forest scientists like Lucy Braun, Mike Pelton, and Jane Holt are presented through Bolgiano's sensitive and highly readable style.

> **Bolgiano shows** unusual understanding of the mountaineers she interviews, as well as the Cherokees, and even urban newcomers. Her book makes the long transition from Scots-Irish mountain culture, through political establishment of the Appalachian's national forests, to the era of modern clearcutting and the ideals of Southern **Appalachian Forest** Coalition: from the old Great Forest to the concept of new Great Forest.

Chestnut blight, acid rain, strip mining, offroad vehicles, bad politics, songbirds, brook trout, ginseng, black bears, and salamanders all have their day in Bolgiano's book. The author speaks with personal knowledge of all these things. She and her husband live on their

an Forest: s and Renewal bigiano biss, 1998 100-acre mountain homestead in the Blue Ridge Mountains of Virginia. There, they encounter reminders of the past, setbacks in the present, and obstacles to the future. Bolgiano expands these personal encounters to encompass all of the Southern Appalachian forests.

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My advice: Read this book. It is the best history lesson you'll ever have on how our mountain landscape came to be. And a tenuous promise of what it may become.

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Brown Gap continued from page 8

man of in his 60's; all of those years chasing 'coon dogs up and down the hills of Blue Valley had made him strong and tough.

Hard work was welcome on that day because it kept us warm. The cold made me think of that balmy September day when we first started cutting the big trees. Mike was felling them, while I-cut off their limbs and bucked up the trees into logs for skidding. We had stood pondering a big white pine that was about three feet thick and leaning over the crest of the hill toward the steep site. "We may have to use a cable to pull that one out," Mike said, "because it will have to go over the hill." Mike was an expert in "pulling" the trees, or using directional felling techniques to make a tree go some other way than it is leaning. But this one



Directional felling techniques were used, to make a tree go some other way than it was leaning. Buzz inserts the head of a double bit axe into the felling notch (above), to help gauge exactly where the tree will fall. The axe's handle points towards the spot where the tree will hit the ground. Mike examines the surrounding trees and their canopy, checking for potential hazards such as dead limbs, or trailing grape vines.

photograph by Nicole Hayler



Mike completes the back cut, and the large white pine tree begins to fall (above). The tree landed exactly where planned, missing several "leave" trees nearby (right). The "hang wood," which helped guide the tree's fall, is noticeable along the the tree butt's left side, and on the stump. photographs by Nicole Hayler



was leaning too much. "You want to drop this one?" Mike asked. "Sure," I answered. The trepidation in my voice was noticeable. With Mike's coaching I cut a felling notch, to direct the tree to fall away from a good white oak that was a "leave" tree. Then I made the back cut, leaving a little "hang wood" on the side of the falling tree, hoping it would pull away from the leave tree as it fell. The big tree snapped several smaller trees as it tore through the canopy and crashed to the ground with tremendous force. The butt end of the tree catapulted up about three feet, as the bulk of the it went over the hillside. Seeing the shattered saplings reminded me of the stories I had read in an old manuscript that described the first harvesting in the Chattooga watershed. Then, several men had been killed by the whiplash from saplings springing up after being pulled over by a felled tree. Logging is, without doubt, quite dangerous work. "Well, you don't get that too often" Mike said, pointing to the elevated butt of the tree. "All we have to do is drag the sled under the butt log and let it fall right onto the sled"



The horse logging operation attracted a significant amount of interest. Hardly a day went by that there weren't visitors on site: forestry students, local folks, retired horse loggers and Forest Service personnel—including the Law Enforcement Officer—all came to see the operation in action. photograph by Buzz Williams



When we ran out of room on the log deck, Jack Billingsly offered the field on his property as a log deck. Together, Terry and Jack made a formidable team. photograph by Buzz Williams

said Mike, as he fired up the chainsaw. I was surprised to see him cut the first log into a 20-foot length. Soon, it became apparent that he was trying to pull as much of the log as he could up and over the hill from the flatter side: The horses must have sensed that this was going to be a tough pull. They advanced automatically to take out the slack in the traces, and leaning against the tremendous weight of the log, attentively waited for the command from Mike. "Gee up!" he barked. Jake and Charlie exploded into their harness. They lunged forward-two tons of muscle and guts straining against the log-their bellies almost on the ground as they drove with all their strength. The log lurched forward, and then suddenly there was a loud "snap!" and clattering of chains. A leather tug had broken. "Woah! Woah!" Mike yelled at the confused horses, who were still lunging forward. Mike looked at the broken tug with disgust. "These things were due anyway" he muttered, as he drove the team off towards the log deck. The next day I walked up to the scene and the log was gone. Mike had repaired the harness, and early that morning finished pulling the tree over the hill.

Needless to say, the horse logging operation was attracting a significant amount of local interest. Hardly a day went

by that there weren't visitors on site: forestry students, local folks, retired horse loggers and Forest Service personnel, to name a few. The most interesting visitors were the old-time horse loggers. Claude Nix, a stout man in his seventies, came one day to watch. Claude didn't talk much, but you could sense the memories coming back to him of the days in the 1940's and 50's when he worked horses in the Burrell's Ford area on the Chattooga River.

Walter got him to talking, and we listened to his stories of breaking teams of horses brought in for logging from out west. We fired the questions as he began to open up. "How did you break them? What kind were they?" Finally, he was quiet, and then as an after thought, he said with guarded pride, "But I never quit one." I thought of the caliber of individuals that I had been accustomed to at Blue Valley, and wondered if there was some correlation between strong character and working hard, close to the earth.

As the months passed, the logging was going great but there were problems. Horse logging costs more money than mechanized logging, because it requires We had kept the markets local, so far, and created many new jobs in adding value to the raw logs. We had raised public awareness and support, and we worked cooperatively with the Forest Service in a bold experiment.

Jack Billingsly. Jack lived only ten miles down the road, and he was one of the hardest working men on the job. Nothing seemed to bother Jack, unless it was missing a good opportunity to go hunting. During the time we were at Blue Valley, he killed a deer and a bear, but still rarely took time off from the job. When we ran out of room on the log deck, Jack offered the field on his property as a log yard, and we began hauling logs to this place. Together,

Terry and Jack made a formidable team.

The same day it was so cold, we began to plan for notifying the Forest Service that we were almost done. A few days later, Max Riddle, the **Highlands Ranger District's Timber Sales** Administrator, came out to inspect the sale. Mike seemed nervous as we walked through every inch of the sale. There was plenty of interest in our project, and in particular, our quality of work. Max was very fair in his evaluation. At the end of the walk-through, we found only seven damaged trees. Max was quite complimentary of our work, and said we had done as little damage

as he had ever seen on a national forest timber sale.

When the last marked trees were harvested, Mike was ready to go home. For four months, he had been here working steadily, under extreme weather conditions almost the whole time. For the Coalition, this was just the end of "phase one": the logging. We had sawed, sold and delivered over half of the lumber. We were breaking even, but there were still 10,000 board feet of logs to saw and deliver. Stacks of lumber remained unsold, from the overrun. But the most important part was over. We had proved that horses could be used effectively for single tree selection, and with minimal damage to soil and residual trees. We had kept the markets local, so far, and created many new jobs in adding value to the raw logs. We had raised public awareness and support, and we worked cooperatively with the Forest Service in a bold experiment.



more skill and time. The added cost of logging, and some other factors shut us out of selling a portion of the unprocessed logs in the local market. So, we decided to saw all of the logs into dimensional lumber on site. By doing so, we could target specialized custom-order markets, while saving an extra haul cost by taking the product directly to the customer. We even found a dealer who bought all of our larger sourwood trees, which we sawed into lumber for his woodcarving market. We also sold to the timber frame market, that requires bigger and longerbeams—which bring higher prices.

For this part of the operation we employed Terry Ketterman, a local sawyer who owns a portable Woodmizer bandsaw mill. A band mill saw blade is narrower than a circular saw mill blade, and consequently yields less sawdust and more lumber, or "overrun," as it is known in the trade. Terry is one of the best sawyers in the area. Periodic checks of beam sizes were never off by more than one-eighth of an inch. To help him saw, Terry employed

US Forést Service Projects

Tallulah Ranger District, Georgia

Compartment 32: This proposed timber sale lies in the Warwoman Wildlife Management Area in between Sarah's Creek and Pounding Mill Creek, and consists of 225,000 board feet of mostly 80 to 100 year old pitch pine and white pine. Proposed access to the site would require .4 miles of "temporary" road construction, and construction of a "temporary log stringer bridge" across Hickory Bottoms Creek. Along with many concerned residents around the sale area, the CRWC opposes this project and believes the area would best be managed as an old growth stand. In September, we filed an appeal based on several wellresearched contentions. Our primary contention is that the sale would result in a conversation of a predominantly hardwood stand into pine monoculture, which violates the Chattahoochee Forest Plan. We believe the old trees would best be managed as old growth (of which there is very little), to sustain wildlife and preserve the aesthetic values associated with undisturbed forest ecosystems. Our appeal was denied by the Forest Service. The "rubber-stamping" of the Tallulah District Ranger's decision is typical; however, we obtained legal counsel and have filed a lawsuit. Stay tuned.

Andrew Pickens Ranger District, South Carolina

Swafford Creek Timber Sale: The CRWC endorsed this proposed timber sale's "Alternative 4," which would result in the greatest economic return to Forest Service coffers (our tax dollars!) while implementing a large timber sale for thinning several stands of densely stocked pine plantations in the Swafford Creek area. However, the Forest Service chose another alternative that would re-build the section of the Old Fall Creek Road that lies right next to Swafford Creek, in it's "stream-side management zone." The agency's decision directly contradicts the recommendations of their own study of sedimentation sources in the Chattooga watershed, known as the "Van Lear Report," and also contradicts state Best Management Practices! The CRWC urges the agency to abide by it's own scientific research as well as save our tax dollars, re-issuing a reasonable Decision Notice to implement this project's "Alternative 4."

Highlands, Tallulah and Andrew Pickens Ranger Districts (NC, GA and SC)

Gypsy Moth Eradication Project: All of the Ranger Districts in the Chattooga watershed held public meetings to obtain input and defuse fears about their proposed Gypsy moth eradication program. Currently, the greatest concentration of moths is in Highlands area, with some detected in Georgia and South Carolina. The Gypsy moth is an invasive, nonnative species most likely brought here accidentally by tourists or new residents from infested areas, which lie north of the Chattooga watershed. Gypsy moth caterpillars feed on



Beware: Gypsy moth larvae emerges in May/June as a hairy caterpillar with 5 pairs of blue spots and 6 pairs of red spots along its back.

more than 500 species of trees, shrubs and vines; their favored hosts are oak, apple, birch, basswood, witch hazel and willow. The caterpillars can completely defoliate their host, if left unchecked, and continual defoliation can result in a weakened tree that eventually will die.

The Forest Service has proposed three alternatives ranging from "no action," mass trapping, and/or aerial spraying of large areas with "Btk." Btk is a biological insecticide toxic to Gypsy moths, as well as all other species of caterpillars, moths and butterflies. Another alternative would treat most areas with Btk, and treat sensitive areas with a gypsy moth specific treatment called "Gypchek," a biological insecticide consisting of a gypsy moth specific virus that disrupts mating. The CRWC is concerned that the eradication project lacks another alternative, which would treat areas with gypsy moth specific insecticide only. The blanket spraying of Btk could have a devastating effect on other beneficial species of the same genus. The Gypsy moth is a definite threat to our forest ecosystem; however, with the advanced mapping. and trapping system the Forest Service has in place, the Gypsy moth specific treatment would be a more responsible alternative.

Forest Service Planning Update & the Chattooga Conservation Plan

Forest Service planners continue to develop eight "alternatives" to present in the draft document for our new Forest Plans, and this work may extend through the spring and summer of '99. Then, one alternative will be tentatively designated as "preferred." Public meetings will follow, with the agency's "preferred" alternative serving as the focus for discussions. In 1997, The CRWC submitted the "Chattooga Conservation Plan" to be considered for the watershed's new Forest Plans. *The Chattooga Conservation Plan proposes managing these national forests according to principles of conservation biology, which would include timber harvesting, as well as increased protection for recreation*

resources, water quality, old growth, and native species of flora and fauna. We ask that CRWC members continue expressing support for the Chattooga Conservation Plan, as the planning process for our new Forest Plans unfolds.

US Forest Service Denies Roadless Areas

Recently, over 500 Forest Service employees signed a petition opposing logging in inventoried roadless areas. The petition was organized by Forest Service Employees for Environmental Ethics, and was sent to Mike Dombeck, Chief of the agency. The petition stated the signatories were "deeply concerned about road management," and supported "protection of unroaded areas that are critically important as habitat for wildlife and fish, and as sources of clean water for our communities." While the agency's own employees concur that roadless areas need maximum protection, our US Forest Service Region 8 director, Ms. Elizabeth Estill, denied roadless area status for a list of qualified areas in the state of Georgia that were recommended by many citizens, environmental groups, and elected officials. Those areas are: Moccasin Creek, West Fork of Jack's River, Trail Ridge, Windy Gap, Cold Mountain, Gurley Branch and Three Forks.

COOPERATIVE VENTURES

Successful Cost-Share Project with the Forest Service

The CRWC and the Tallulah Ranger District recently completed a cost-share project that involved trail maintenance work, and re-building the Ammons Branch



Britt Singer enjoys the view from the reconstructed Ammons Branch bridge, which was a cost-share project between the CRWC and the Tallulah Ranger District. photograph by Andy Hinton

bridge and observation deck that is located on the Holcomb Creek trail. A grant from the Katherine John Murphy Foundation helped fund the project, by enabling the CRWC to pay for the costs of labor and transporting the building materials to the site. The Tallulah Ranger District provided the building materials. The CRWC welcomed this unique opportunity to work cooperatively with the Tallulah Ranger District.



Native Grass Seed Collection

This past fall, Dr. Bill Stringer (of Clemson University and the SC Native Plant Society) taught a group of volunteers how to identify native grasses, and led a field trip to collect a variety of native grass seeds. These attractive grasses, which include Big Blue Stem, Little Blue Stem, Purple Top, Indian Grass and Split-Beard Blue Stem (pictured above), will be used to re-seed the log landing at the CRWC's Brown Gap Timber Sale project.



Thanks to Arlo Brown, Steven Morrison and Professor Bill Stringer for volunteering their time to collect native grass seeds. They're shown here gathering seeds from Purple Top. photographs by Nicole Hayler

<u>CRWC & NC Outward Bound Team Up for Community</u> <u>Service</u> -

In the "dog days" of August, CRWC Director Buzz Williams and a group of Outward Bound students tackled the ominous job of removing a patch of Kudzu from the highway 76 bridge parking area at the Chattooga River. Kudzu is an extremely invasive non-native species that is very difficult to eradicate, and also requires persistent efforts to control its spread. The two-day event was organized by the CRWC as a cooperative project between the US Forest Service, Outward Bound and the CRWC. Thank you, North Carolina Outward Bound!



A dedicated Outward Bound crew worked to remove a Kudzu patch growing near the Chattooga River.

Forestry "Certification" in the Appalachian Region Update report by Buzz Williams

On December 9th, 1998, I received a letter from the Mountain Association for Community Development (MACED), the organization that is hosting a working group to craft "certification" standards for sustainable forest products operations in the Appalachian Region. The first two sentences of the letter read, "After our meeting in September, we forwarded the draft standards to both certifying organizations in the United States (Scientific Certification Systems and Smartwood) for their review and comment. In their response, both organizations indicated that the standards as written would be difficult and costly to implement in Appalachia."

This was the last straw for me. I had been working with

the group for two years, trying to hammer out these socalled "standards." The group was selected to represent those with expertise in forestry, conservation, and the wood products industry. From the beginning, those of us who had been tagged as "environmentalists" had been given the cold shoulder by the "industry" folks. We were having a tough time getting even the most remote standards of specificity into the formal certification standards. The first draft of standards for sustainable forest products operations was so weak that two of us threatened to walk away. A firestorm of protest came from everywhere. Why were we quitting the group that had such an important mission? It seemed that everybody had jumped onto the certification bandwagon. Funders were generous in their support for certification, and nobody wanted to see the idea abandoned and the money dry up.

So, I hung in there—until now. Sure, third party certification is a wonderful idea. But these standards were so weak in the first place that they were almost meaningless. I was convinced for a while that "moving in the right direction" was worth the compromise, to get the ball rolling. Now, I believe that the current proposed weakening of these already weak standards does great disservice to those who trust us for our judgement. I am now committed to exposing the whole mess.

Let me give an example. At the meeting in September, we were trying to arrive at a standard for riparian zone protection. Given the overwhelming opposition, including some of "our own," we argued for a 25 foot no-cut buffer zone. Folks, this is minimal protection. The industry screamed that they must be given the flexibility to cut high quality trees growing right on the stream bank. We gave ground. We got them to agree to staying out of Outstanding Resource Waters, as defined by the state; however, in the proposed certification prescriptive standard, the private land manager could still cut high quality trees right on the stream bank.

Okay, now even this minimum standard has been rejected. In other words: a land manager could still clear-cut, violate sensitive stream buffers, and follow a myriad of other "worst management practices." Consequently, "certification" appears to be simply a tool of the industry, for marketing to well-intentioned buyers of wood products, while continuing business as usual. The really sad part is that so many in the conservation business refuse to cry foul, in fear that the _____ Foundation will cut them off.

Well, try this on for size: If you go into a store and see a certification label on their wood products, boycott the product! In that sense, certification is good. It lets people know, so they can stay away.

Bull Pen Road Update

Concerned property owners who live along the scenic Bull Pen Road, which traverses the headwaters of the Chattooga River above the Ellicott Rock Wilderness Area, have submitted a new proposal for modifying a NC Department of Transportation project to pave the road. The modifications would involve width reductions to allow retention of trees, and a design speed of 30 km per hour (18.8 mph), which is recommended for mountainous terrain. Lower speeds provide road engineers the flexibility to preserve the rural character of the road. The CRWC has worked with many of the area's residents in trying to resolve differences about the paving project, and we believe the new proposal is a good compromise that addresses community concerns while allowing paving in areas prone to ongoing erosion. Citizens can write to the North Carolina Department of Transportation in support of this proposal. The address is:

> State of North Carolina Dept. of Transportation Attn: E. Norris Tolson POB 25201 Raleigh, NC 27611-5201

LEGISLATIVE REPORT

42 Riders Passed with the Omnibus Spending Budget Bill

The 1999 federal budget battle ended with 42 riders incorporated amongst the language of the 2,000-plus page spending bill. All of the riders indicate that the backdoor strategy for passing controversial legislation, which should be outlawed, is alive and well. Most of the riders signal an "about face" for the progress of many of our nation's environmental laws. Once again, citizens will see our tax dollars used to support antienvironmental activities, rather than budget line items for conservation and protection of our natural resources. Although a few of the worst riders were modified to be more palatable, the remainder indicate cozy deals between certain Members of Congress and special interests unfriendly to environmental protection.

For a copy of the riders and their sponsors, you may contact the CRWC office; or, check out the internet site for GREEN (Grassroots Environmental Effectiveness Network)/Defenders of Wildlife at: rfeather@defenders.org

Note: As deliberations for the new FY 2000 federal budget will begin soon, please contact your Members of Congress and tell them that attaching riders to the Omnibus Spending Bill is not acceptable. Every year the League of Conservation Voters compiles an "Environmental Scorecard," which presents the overall "pro" voting record for individual Members of Congress (MOC) on environmental issues. Below are the scores for all of the Chattooga River watershed's MOCs. For the scores of MOCs outside of the watershed, check the League of Conservation Voters' internet site at: www.lcv.com

Congressmen

State	District	Name	Score
GA	9	Nathan Deal(R)	17%
SC	3	Lindsey Graham(R)	07%
NC	11	Charles Taylor(R)	07%
Senato	rs	*	
GA		Paul Coverdell(R)	00%
		Max Cleland(D)	60%
SC	1.	Strom Thurmond(R)	00%
		Ernest Hollings(D)	73%
NC		Jesse Helms(R)	00%
		Lauch Faircloth R)	20%

WORKSHOP ANNOUNCEMENT

Learn How to Build a Log Cabin!

This year—probably in the fall—the CRWC is planning to conduct a log-cabin-building workshop. The one-week workshop will involve constructing a small log cabin, using the traditional Southern Appalachian half-dovetail notch (shown below). CRWC Executive Director Buzz Williams will teach the workshop. Buzz worked for several years as a self-employed log cabin and timber frame builder, after learning the trade through apprenticing with Peter Gott, a locally renown craftsman and log builder from North Carolina. Only those with intermediate to advanced carpentry skills should apply. The cost will be approximately \$150 per person (which does not include housing or food). The site location will be in the Chattooga River watershed. If you are interested, please call the CRWC at 706-782-6097.



Thank You for Renewing and Joining the CRWC

Many thanks to all who recently renewed their membership and/or joined the Chattooga River Watershed Coalition. Your generous contributions will help us continue to work on the many conservation issues facing the watershed.

Lois & John Airgood Ethel & John Allen Armuchee Alliance **Richard Anderson Appalachian Trail** Conference **Brent Atkins** Atlanta Whitewater Club Harvard Avers Dave Bassage **Hewitt Beasley Trey Benton** Dr. W.B. Bigbee **Reis Birdwhistell** Marion Blackewell Chris Bolgiano Keith & Rebecca Bone **Retty Bowen** Patricia & Bill Brake Morris Braum Gary Breece Bridget Brennan Susie Brenner Grace Brigham Margaret & Ben Brockman Dr. Emerson Brooking **Richard & Elizabeth** Bruce Mary Beth & Don Bundrick Jennie & Martin **Burell**

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Chattooga River Watershed Coalition

We are a 501C3 nonprofit organization. incorporated in Georgia.

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Development Director Nicole Hayler

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 Join the Coalition and help protect the Chattooga River Watershed.

 Your contribution is greatly appreciated. Donations will be used to support the Coalition's work, and guarantee you delivery of the Chattooga Quarterly.

 We're a non-profit organization, and all contributions are tax-deductible.

THANK YOU!

Send to: Chattooga River Watershed Coalition P.O. Box 2006 Clayton, Georgia 30525

Chattooga River Watershed Coalition

PO Box 2006 Clayton GA 30525 (706) 782-6097

(706) 782-6098 fax crwc@acme-brain.com Email

Purpose: "To protect, promote and restore the natural ecological integrity of the Chattooga River watershed ecosystem; to ensure the viability of native species in harmony with the need for a healthy human environment; and to educate and empower communities to practice good stewardship on public and private lands."

Made Possible By: CRWC Members and Volunteers Turner Foundation, Inc. The Moriah Fund Lyndhurst Foundation Patagonia, Inc. Merck Family Fund Alex Walker Foundation REI, Inc. The Barstow Foundation Smithsonian Institution CTSP Frances Allison Close Environmental Systems Research Institute Katherine John Murphy Foundation



Goals:

Monitor the U.S. Forest Service's management of public forest lands in the watershed

Educate the public

Promote public choice based on credible scientific information

Promote public land acquisition by the Forest Service within the watershed

Protect remaining old growth and roadless areas

Work cooperatively with the Forest Service to develop a sound ecosystem initiative for the watershed

Chattooga River Watershed Coalition PO Box 2006 Clayton, GA 30525

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