



# The Chattooga Quarterly

WINTER



1997

FREE

## Planning for the Future- Part II *Focussing on the Private Sector*

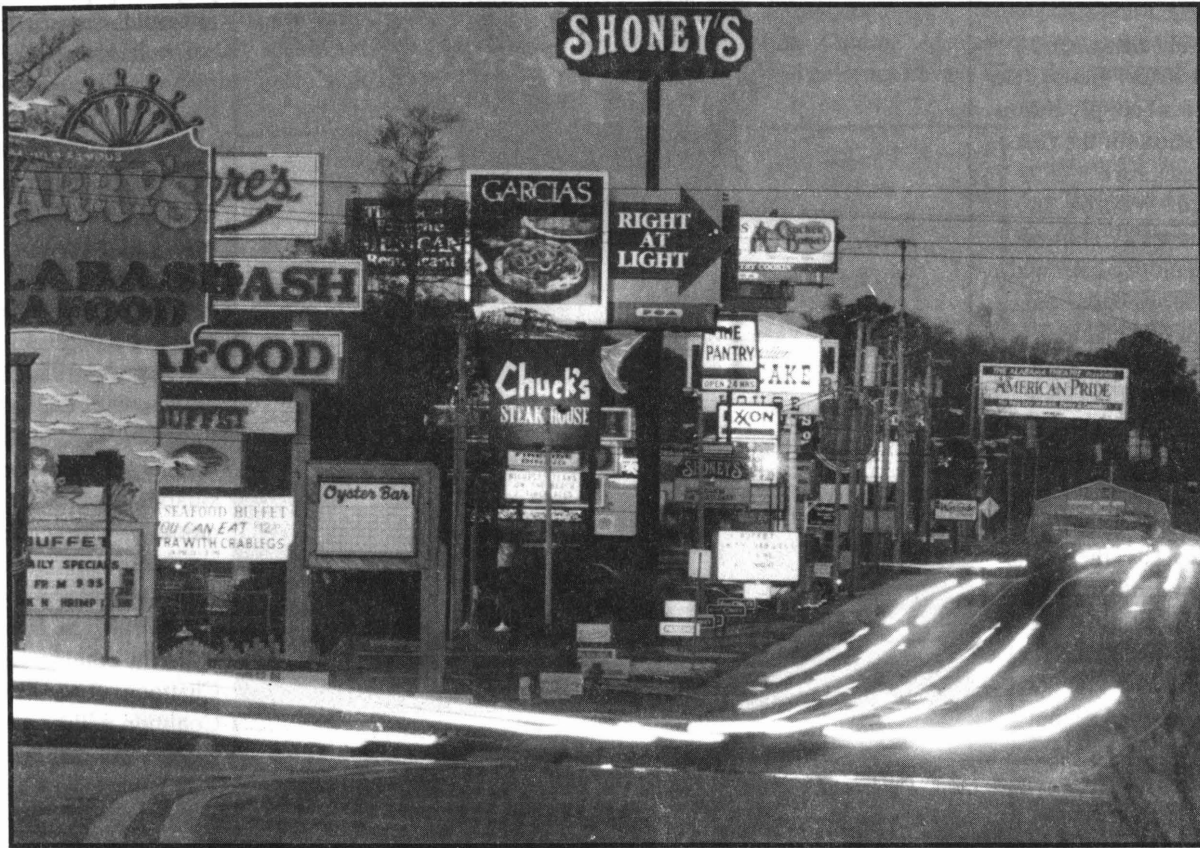


photo by Jamie Francis

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# Director's Page

**Buzz Williams, CRWC Executive Director**

This issue of the *Chattooga Quarterly* focuses on the many roles of the private sector in natural resource conservation. Emphasis on private land management is consistent with the shift to "ecosystem management", which is a more holistic approach now being showcased by key public land management agencies like the USDA Forest Service. Though current political climate thus far has blocked its implementation, the concept of ecosystem management is well-founded in science, and common sense. Ecosystem management simply means consideration for the fact that all things are connected. Wildlife, air, and water are all entities which cannot be confined by boundaries based on politics or ownership. Aldo Leopold was right: Conservation is the state of harmony between humans and nature. This harmony is more likely achieved by careful coordination of activities across the whole landscape. Too often we concentrate on public lands to provide the habitat for Threatened and Endangered species, but increasingly the evidence indicates that sufficient core areas for many of these species will require good conservation planning on both public and private lands. This publication will address collaborative planning efforts, recycling, zoning, waste reduction, and alternative energy -- all of which depend heavily on the private sector.

In addition to giving us a good definition for conservation, Aldo Leopold also suggested a measuring stick to gauge the success of our conservation agenda: The first rule of conservation is to keep all the pieces, every cog and wheel. Given that rule, the conservation community faces a daunting challenge. The Committee of Concerned Scientists warns of mass species extinctions of a biblical proportion, unless we become better stewards of the land. We know that the reason so many species have become imperiled is due to habitat loss, on a colossal scale.

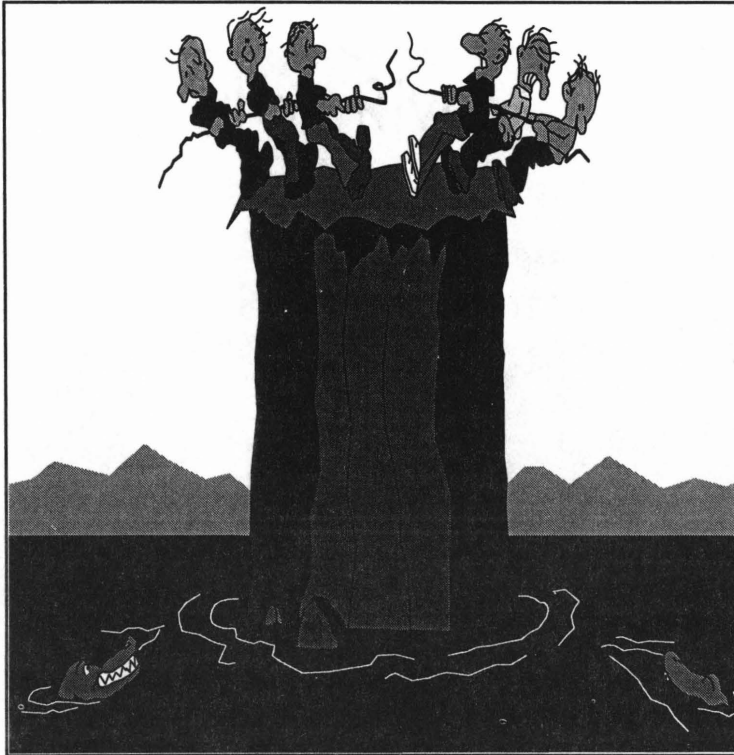
The Southern Appalachian Assessment, a multi-

agency analysis of the state of the Southern Appalachian ecosystem found that "About two-thirds of rare communities occur on private lands." Yet urban sprawl is gobbling up that land at a phenomenal rate. For example, the city of Phoenix, Arizona, now occupies a space the size of Delaware. Other examples abound, closer to home. Requests for rezoning lands from agricultural to commercial is a growing trend. Chip mills are moving in from all over the world to harvest the recovering hardwood forest of the

Southeast. Multi-national pulp and paper companies are rapidly converting native hardwood forests to pine plantations. The Forest Service predicts that by the year 2040, 70% of the forest lands in the state of Georgia will be managed as pine plantations. Second home development is destroying habitat by fragmenting the landscape and severing critical wildlife corridors. Excessive road building and the inevitable stream siltation which results is quickly becoming the greatest threat to aquatic ecosystems.

In the coming year the Chattooga River Watershed Coalition will be working to address these issues on private land, as well as continuing to focus on core

public land management policy. By targeting private land issues, we hope to provide citizens with useful information which sheds light on the idea of conservation from a landscape perspective. There is no better way to forge a new land ethic for our public lands than to first cultivate and instill a conservation ethic in the citizens who ultimately own this land. We hope that this issue of the *Chattooga Quarterly* will help to illustrate some of the problems and opportunities which face us today in striving to be good stewards of the land. Also, we hope that citizens will consider some of the solutions we propose and become involved in their implementation. The environmental problems we face today oftentimes are overwhelming, but it is exciting to be at the crossroads. **We suggest beginning in our own backyard.**



*Private property rights versus land use planning: Who will prevail?*



# Land Use & Zoning in the Chattooga Watershed

**Buzz Williams**

There is a "land rush" going on in the Chattooga River watershed. Trends clearly show a dramatic shift of population in the United States from the Northeast, to the West and South. Atlanta, Chattanooga, Charlotte, Greenville, Asheville, Knoxville: All are bursting at the seams. Sprawl is moving like a cancer, spreading unopposed along the Interstate Highway System. Even the Chattahoochee National Forest in Georgia now is classified as an "urban forest". The historically remote Chattooga watershed is under tremendous pressure from swelling urban populations desperately seeking respite from city environments. The buffer between "wild country" and massive development is non-existent. The country side is filling up with second home development and roadbuilding projects. Ironically, open space is being threatened by the very people who seek it. Cultural disharmony is festering on the eddy lines between "transplants" and the local populace. Streams are silting in and wild places are being destroyed, maybe forever.

Maybe. What happens next will depend on the steps taken to address the problem -- now. The Chattooga River Watershed Coalition has recognized the urgency of conscientious land use planning. Our Chattooga Conservation Plan has been carefully designed to address private lands as an integral part of an overarching landscape plan including both public and private lands. The Chattooga Conservation Plan also outlines a flexible strategy for public education regarding the need for sustainable economic development, and calls for citizen involvement in the decision-making process. The Chattooga Conservation Plan's central focus is on the positive benefits of good land stewardship, both ethically and economically.

Local examples abound which illustrate the magnitude of the land use planning issue. In Highlands, North Carolina, which lies partially in the Chattooga River

watershed, private land owners are lining up to request annexation to the city's water and sewer lines. Last year, the Nature Conservancy purchased the Fodderstack Mountains in the headwaters of the Chattooga, located just outside the city of Highlands. The acquisition of the highland mountain bog and old growth forest on the Fodderstacks was a major step forward in ecosystem protection. Yet the "deal" also resulted in future development of 100 acres of private land. The developer asked that the retained acreage be annexed to the Highlands city limits, which was approved. This has caused other, adjacent land owners to apply for annexation, which would expand the city's limits. Also around the same time in Highlands, the national Burger King franchise applied for an exemption to the city's zoning laws, which prohibit drive-thru fast food restaurants. The rezoning was not forthcoming, and the arguments seemed to pit the usually more wealthy "transplants" against established locals who thought the proposed restaurant would provide a good, affordable place to dine.

In Rabun County, Georgia, an outside developer petitioned the county's zoning board to rezone a 50 acre tract on Stekoa Creek (tributary to the National Wild & Scenic Chattooga River) from "agricultural" to "commercial". The developer plans to build a

theme park on the property, which consists of steep, wooded hill sides along the creek. Citizens were concerned about the probable negative impacts on Stekoa Creek, which already is classified by the state of Georgia as an "impaired" waterway due to extreme sedimentation and high fecal coliform counts. Other concerns voiced were that the character of the development would cause private property values to decline. After several public meetings where the Rabun County Courthouse was filled to standing-room only capacity by hundreds of citizens who expressed their overwhelming opposition to the rezoning, the zoning board unanimously recommended that the county commissioners deny the rezoning request. Supporters of the theme park argued that most of the citizens attending the public meetings were "transplants" and were taking over the





## Land Use and Zoning *continued*

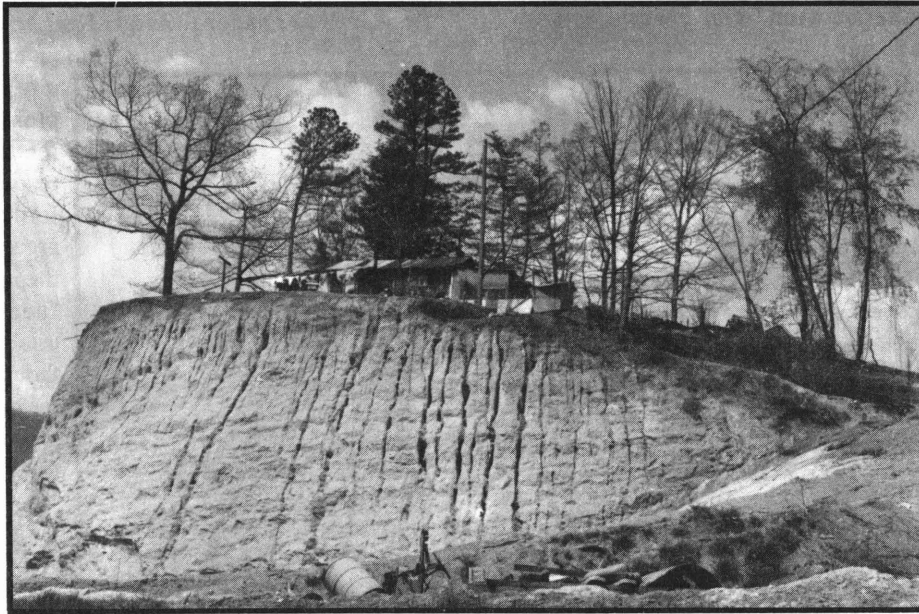
county decision-making process. Soon thereafter, the county commissioners violated Georgia's "Open Meeting" laws and approved rezoning the property. This decision cleared the way for the development and likely further degradation of Stekoa Creek.

At the same time across the Chattooga River in South Carolina: more land use problems. Oconee County recently had hired a consulting firm to design a county-wide land use plan, and held a public meeting to present the plan. At the meeting, county officials were confronted by an angry crowd who shouted down any attempt to explain the plan. Property rights advocates strategically had put out information which persuaded many citizens that the land use plan would take away their private property rights. One person who attended the meeting had been told that the plan would prohibit a person from working on their car in their own yard.

Obviously, most of the fears and objections to land use planning are founded on misinformation and ignorance of the facts. The first step in public education is depolarization of the issues at hand. Private property rights in this country and especially in the South traditionally have been "holy ground". To suggest regulation and zoning in the rural communities of the Chattooga River watershed -- to control the negative effects of development -- is a sure way to start an argument. Too often the debate is over before it begins. The local populace sees their traditional lifestyle and culture as being threatened by "outsiders". Logic does not enter into the argument. Oftentimes, fueling the feud between urban refugees and local folks is the opportunistic developer who knows that by framing the issue as a "taking", it easily can be used as a smoke screen to divert attention from the real issue of conscientious land stewardship.

Another obstacle to land use planning and managed growth is the "dollar" factor. In every community, in addition to the outside developers, are individuals and families who own large blocks of land, and who stand to

gain the most immediate profit from land sub-division and development. It's easy for some folks to rationalize obviously harmful land use practices, if the net result is a big profit. Here too, if the issue is framed as "the right to do whatever one pleases with their own property", the argument for broader social obligations is lost. Related to this are perverse tax incentives. Sprawl moves toward cheap land, along big highways. One of the main reasons we have land use problems is due to tax breaks for ill-conceived projects. Nor do we account for the other invaluable long-term economic benefits of good stewardship such as clean water, air, habitat preservation, and open space.



*Private land uses oftentimes are in conflict, as shown in this 1986 photograph taken in Rabun County, Georgia, on War Woman Road (photo - Nicole Hayler)*

In the coming months, the Chattooga River Watershed Coalition will be communicating with local officials while working to inform citizens of the positive, shared benefits of conscientious land use planning. Areas of focus will include: 1) Restructuring tax incentives to promote control of urban sprawl; 2) Standard and adequate buffers for riparian areas;

3) Limits to city limits; 4) Land use plans for open space and agriculture; 5) Economic renewal programs based on local jobs and value-added industries; and, 6) Infrastructure design to preserve the unique character and values of the Chattooga River watershed. Also, we will offer our Geographic Information Systems capabilities to the counties to help in land mapping and planning designs.

Will these efforts be enough, in time enough to overcome the minefield of problems and obstacles in planning for sustainable growth? Ultimately the answers will depend on getting the facts to the people. Equal and positive empowerment is the key. Dedicated public servants and citizens alike will be challenged in their work - to convince the majority of citizens that conscientious development and land use planning go hand in hand.





# Stekoa Creek: "The Check is in the Mail"

**Buzz Williams**

*In 1974, the section of the Chattooga River below Stekoa Creek was so polluted that it almost was excluded from National Wild and Scenic designation. Today, twenty-three years later, Stekoa Creek is still a blight on the pristine character of the National Wild and Scenic Chattooga River.*

The Wild and Scenic Study Report (USDA Forest Service; May 15, 1970) for the Chattooga River is a document that was required by Congress pending "Wild and Scenic" designation for the river. This report concluded that Stekoa Creek was the only polluted tributary to the Chattooga. Furthermore, in the section of river below its confluence with the creek, fecal coliform counts were documented as 20 times higher than that suitable for "Wild" river classification. The report also found that the greatest contributors to this problem were located on the private lands which comprise a large percentage of the creek's watershed. Particularly disturbing was the finding that the City of Clayton, Georgia, was dumping "...partially treated, to raw sewage into the creek". Although Clayton had entered into a contract (in late October, 1969) to construct a sewage treatment plant, at the time of the Study Report Clayton's sewage treatment facility consisted only of settling ponds. However, the Report determined that the section of river polluted by Stekoa Creek should be included in the Wild and Scenic system, based on the city of Clayton's plans to construct a sewage treatment plant. The Study Team recommended a temporary acceptance of the deviation from required criteria -- while the city was taking necessary action to upgrade water quality -- and further: "This section of river should be included as Wild River since the Forest Service has reasonable assurance that fecal coliform counts will soon reach acceptable levels". In May of 1974, the Chattooga was designated as a Wild and Scenic River, and the section below Stekoa Creek was classified as "Wild". Clayton completed construction of their sewage treatment facility in 1975.

Nevertheless, problems persisted. By 1981 numerous complaints had been filed with the City of Clayton concerning the water quality in Stekoa Creek.



*Turbid waters from Stekoa Creek entering the Chattooga River  
(photo - Tom Stults)*

Investigations by the Georgia Department of Natural Resources (DNR) found that not only were there inordinately high fecal coliform counts from the Clayton sewage plant, DNR stated that the Clayton plant "...appears to have acute difficulties". On February 4, 1982, the Clayton Tribune reported that the Mayor of Clayton admitted that the plant had "...never actually met state

permit requirements." Subsequent investigations revealed that flow through the plant was often in excess of 5 times that for which the plant was designed to handle (its capacity being 160,000 gallons per day). The problem stemmed in part from leaky sewer lines, some of which were 50 years old. Compounding this problem was the heavy annual rainfall. Rabun County, Georgia, often receives as much as 80 inches of rain per year, which ranks as one of the highest rainfalls in the United States. The end result: After a tumultuous storm, the holding ponds at the sewage treatment plant overflow, dumping raw sewage into Stekoa Creek.

The situation was getting worse. Other bad management practices were contributing to this problem. For example, rampant construction and development along the section of Highway 441 which parallels Stekoa Creek was pouring sediment into the creek, and leaking septic systems upstream in Mountain City, Georgia were causing coliform counts to skyrocket. The Forest Service concluded that there were a number of other problems than just the sewage treatment facility in Clayton, in addition to the livestock that were allowed to free-range into riparian areas. All were major contributors to the continued degradation of the creek's water quality.

In March of 1993, Georgia DNR again investigated complaints of continued violations of the Clayton sewage treatment plant. Compliance sampling inspection with regard to the National Pollutant Discharge Elimination System (NPDES) permit requirements revealed that effluent limitations were in violation. A letter was issued to the Mayor stating "You are expected to initiate action to correct problems which may have caused the violation of the permit requirements." The letter went on to warn of enforcement action.

But other problems were beginning to surface

## Stekoa Creek *continued*

which were contributors to water quality degradation in Stekoa Creek. A report by the Environmental Quality Institute on December 12, 1993, entitled "A Preliminary Assessment of Pollutant Sources in the Stekoa Creek Watershed" revealed major problem sites that included: two heavily bulldozed sites on Highway 441 to create level building sites; a Georgia Department of Transportation road-cut site on Highway 76 between Clayton and the Chattooga River; a malfunctioning wastewater treatment plant on the Kingwood Country Club property; and, other lesser but significant contributors. A letter in 1994 to the Chattooga River Watershed Coalition from Governor Zell Miller concerning siltation problems in Stekoa Creek also revealed that Rabun County had been certified to issue and enforce land disturbing activity permits, pursuant to the provisions of Georgia's Erosion and Sedimentation Act.

**Follow-up**  
investigations continued the next year. A study entitled "Sedimentation in the Chattooga Watershed" (February, 1995) was conducted by the Forest Service as a part of the Chattooga River Ecosystem Management Demonstration project. This report concluded that "the majority of sedimentation problems (80.2% of observable sediment sources) were associated with open graveled and unsurfaced roads"; however, highways, timber harvests, pastures with un-fenced riparian zones, developments, land fills, and active beaver sites were also important sediment sources.

An investigation of discharge monitoring reports submitted to the Georgia EPD by the city of Clayton for 1994-95 was conducted by the Georgia Center for Law in the Public Interest, at the request of the Chattooga River Watershed Coalition. This report revealed "serious noncompliance with a number of requirements, including those pertaining to total suspended solids, biochemical oxygen demand and pH". The report concluded that there were literally hundreds of violations of Clayton's sewage plant's discharge permits over the past 4 years. The report also found that the City had upgraded their sewage treatment facility in October 1994 which resulted in "some improvement". Finally on June 2, 1995, the city entered into a consent order with EPD to install further upgrades of

the facility, with a future capacity of 800,000 gallons per day.

In 1995 a group of private citizens, including the three outfitting and guiding companies on the Chattooga River and the Forest Service, began initiatives designed to help clean up Stekoa Creek. One of these was a project, funded by a grant from EPA, to work with a local farmer in fencing livestock out of a tributary to the creek. This group also has identified other, major problem sites on Stekoa Creek.



*A slumping road cut during reconstruction of Highway 76 near Clayton, GA, impacting Cherchero Creek, a tributary of Stekoa Creek*

By 1996, Clayton was finally getting serious about the sewage treatment plant problem. The City Council announced that they had awarded a 1.4 million dollar contract to Reynolds Incorporated for treatment plant improvements. Also in March of 1996, the Sierra Club won an important lawsuit

pertaining to state and Federal monitoring of rivers and streams. Here,

it was ruled that Georgia EPD had failed to identify and classify as "impaired" the streams that do not meet the guidelines of the Federal Clean Water Act. The ruling actually was against the Environmental Protection Agency (the Federal agency which administers the Clean Water Act), and subsequently required Georgia EPD to complete a monitoring and classification program for the state. Stekoa Creek has since been classified as an "impaired" waterway.

The Clayton Tribune reported on January 1, 1997, that the city had voted to pass a bond validation to fund the sewage treatment plant improvements. Ironically, the consent order signed earlier with EPD cited this same date as the deadline for completion of the project.

Will we someday see real improvements in the quality of the water in Stekoa Creek? More citizens are becoming involved, and civic leaders are responding to this increased pressure. The bottom line is that water quality in Stekoa Creek has not improved significantly since the 1960's, when we were told that our governments would address the problem. **The Chattooga River is a local and national treasure. Time is running out....**



# Exploding the Myths of Sprawl

*Reprinted with permission from  
Common Ground Vol.8 No.1 November/December*

Economically and socially, urban and suburban sprawl produces some of the costliest problems our society faces, to say nothing of its direct environmental costs. If conservationists are to deal effectively with sprawl, they have to dispel the myths that block land use reform. Here are the four big ones:

**Myth No. 1:** Apologists for sprawl argue that reform means interfering with free *markets* and allowing planners and social engineers to impose their elitist views on the public.

The "antis" have it backward: sprawl is the result of many market-warping policies. Highway construction, mortgage insurance, fragmented property tax systems, favorable tax treatment of home sales and mortgage interest, etc., all help shape the "market." What's needed is to free the market from the unintended consequences of such policies.



**Myth No. 2:** *Property rights* advocates say that stopping sprawl means denying people free use of their property. But we've got to look at all property owners. Relatively few will continue to profit from subsidized speculation at the urban fringe. Many more will see taxes rise and property values fall thanks to the rising costs of sprawl and urban disinvestment.

A recent Rutgers University study showed sprawl costs taxpayers over 20 times what it provides in financial gain to speculators. Condoning sprawl because of a distorted notion of "property rights" is simply caving in to greed.

**Myth No. 3:** Sprawl's defenders say that growth management limits the prerogatives of local officials and diminishes *local control*. Reformers need to ask, what local control? Local governments are increasingly buffeted by forces they can't control: federal and state budget cuts, unfunded mandates, nationally or globally-based economic

shifts, etc.

The fact is, land use reformers are for local control. They want to bolster the fiscal independence of local government by achieving land use patterns that minimize municipal costs and boost tax base. Intelligent land use reform can insulate tiny suburbs from harmful forces, stabilize them and strengthen prospects for private investment.

**Myth No. 4:** *Greedy developers* are the problem. Wrong. Developers just play the hand they are dealt. Actually, they are the solution. Regulation can direct

development to certain areas and protect open lands. But regulation by itself can't remedy the physical defects in existing land use patterns only new development can. For this reason, reform must emphasize and affirm development and harness its power for community value.

The point is, land use reformers need to affirm the importance of free markets, property values, local control and development.

They also need to show how land use reform supports these values.

There is a fifth myth, but the opponents of sprawl don't use this one-many of us use it against ourselves: "politicians have no backbone." Why should politicians have more backbone than anyone else? Why should they champion a cause few people care about, few newspapers write about and prevailing myths argue should not be touched?

It is up to private citizens to create a very public parade for land use and to make it big and visible enough that elected officials will want to march at the head of it.

**-Henry R. Richmond**

*The author is founder of the National Growth Management Leadership Project. This essay is excerpted from a June 28, 1996 speech.*





# The Cost of Private Corporations

Reprinted from page 3 of "Forest Voices" newsletter

In 1995, Dr. Janice Shields of the Center for Study of Responsive Law, released a report titled "*Aid For Dependent Corporations*". It identifies 153 sources of federal business welfare from fiscal 1995 totaling \$167.2 billion, or \$1,388 per individual taxpayer. The report details the precise nature of corporate subsidies, industry by industry. But a new study suggests that these figures vastly understate the enormity and social impacts of corporate welfare.

Ralph Estes is the author of a soon-to-be-released book *Why Corporations Make Good People Do Bad Things*. In a recent article published in the academic journal *Advances in Public Interest Accounting*, Estes seeks to calculate the costs imposed by corporation on the larger society. While corporations carefully track internal costs, Estes argues that they purposely ignore the externalized cost of their production. In the fiercely contentious global business environment, being competitive often means being able to externalize more costs than a competitor. Thus, for example, a corporation logging public lands rather than its own, is able to externalize the costs of paying property taxes, of timber sale preparation, road building, fire fighting, insect infestation, and replanting. Estes calls the social costs imposed on the larger society "external diseconomies," which are, in effect, "coerced assessments" on consumers, employees, communities, and the environment.

Some of the more obvious externalized costs are air and water pollution, depleted natural resources, endless streams of toxic waste, chemicals in the food supply, destruction of forests and fisheries, and dangerous or polluting products. Less obvious are the costs to the U.S. economy of exploitative or unfair wages based on discriminatory practices and maltreatment of foreign labor; or the cost to families and to employees who contract cancer in the workplace; or the cost of corporate crime including fraud, income tax evasion, and the ubiquitous military contract overcharges. Estes notes that corporate fraud involves staggering amounts. The 1991 Equity Funding fraud cost policyholders, shareholders, and insurance companies \$7.7 billion. That amount was described as more than the total losses from *all* street crimes in the United States for one year. The Savings and Loan scandal of the 1980's, by itself, cost taxpayers \$500 billion.

Estes consolidated prior and original research from government agencies, private research institutions, public news sources, and recognized experts. He then linked these disparate studies, extracted and totaled the numbers, and published the surprising results. Where no studies existed and information was unavailable--such as the cost of agricultural workers poisoned by carcinogenic chemicals--

he offers no guess. Where estimates are necessary, they are on the conservative side. His intent is not to be precise so much as to provide an "indicator of magnitude."

Using figures drawn from *Fortune* magazine, *U.S. News and World Report* and *Dollars and Sense*, for example, he estimates the annual cost to the nation of corporate crime at \$165 billion. To calculate the cost to the U.S. economy of wage inequities based on sexual and racial discrimination--which, Estes reasons, constitutes an involuntary subsidy--Estes uses data from the Statistical Abstract of the United States and the Economic Report of the President, and arrives at a figure of \$165 billion per year. He calculates that the social and medical costs of death from workplace-induced cancer is \$278 billion. The categories alone add up to \$608 billion in annual costs to society, and they are only three of the 12 categories that Estes examines.

Estes concludes that the annual cost of corporate welfare, when fully-costed, is a staggering \$2.6 trillion in 1994 dollars. By comparison, Shield's direct subsidy figure of \$167 billion is only a trifling 6 percent of Estes' estimated externalized costs.

The numbers are so great as to be rendered meaningless. A trillion dollars is a thousand billion. To put this figure in perspective, \$2.6 trillion is nearly twice the federal budget, eight times what the U.S. spends on education, and more than ten times the annual deficit. While a growing bipartisan effort seeks to reform welfare which, in some cases, punishes today's children for yesterday's budgetary excesses, one year of corporate subsidies would pay for one century of welfare.

Estes puts it this way: "As Washington and Wall Street reverberate with ominous estimates of the cost to business of government regulation, one can listen virtually in vain for consideration of the costs of *not* regulating.... In the public debate, as decisions on corporate tax provisions, industrial policy, corporate welfare, regulations and penalties for their violation, investment tax credits, zoning exemptions, and tax abatements--no information has been available about the other side of the ledger: the aggregate costs to society of the corporate system. **Now There is.**

Copies of Ralph Estes article, *The Public Cost of Private Corporation*, can be obtained from American University Media Relations (202) 885-5950. Estes's new book, *Why Corporations Make Good People Do Bad Things*, is scheduled for publication in January by Berrett-Koehler, (415) 288-0260.

*Aid to Dependent Corporations* can be obtained from Essential Information, P.O. Box 19405, Washington, DC 20036 (202)-387-8034.



# Southern Blue Ridge Escarpment: Keep it Wild

Chas Zartman

*"But enough of these examples of the mighty stream's eccentricities for the present -- I will give a few more of them further along in the book." -Mark Twain*

## Advice from a Sage

In his novel Life on the Mississippi, Samuel Clemens describes the Mississippi River's physical character, comparing it with some of the world's most celebrated river systems: "It discharges three times as much water as the St. Lawrence, twenty-five times as much as the Rhine, and three hundred and thirty-eight times as much as the Thames.... It draws its water-supply from...Delaware on the Atlantic seaboard, and from all the country between that and Idaho on the Pacific slope -- a spread of forty-five degrees of longitude." Although Clemens' inspiration flows from his reverence for the river's sheer physical dominance, ultimately it's rooted in his urgency to immortalize the hasty retreat of this great American wilderness. For those who share Clemens' sympathies that unadulterated wildness is good, his story is depressing. He reports of aspects of the river's wildness that are lost once "the national government turned the Mississippi into a sort of two-thousand-mile torchlight procession," and also of the wildness lost with the initiation of the "Pilot's Benevolence Association," which led to the demise of the steamboat society. "The government has taken away the romance of our calling; the Company has taken away its state and dignity," states Clemens during a return trip to the river in later years.

Although Clemens' candid criticism of humankind's relationship with the Mississippi weighs in heavily, the message from his writing is enlightening: the greatest health and wealth attainable by humans comes through simplifying the link between human society and the native land.

Clemens was fortunate to have experienced the Mississippi River from behind the wheel of a steamboat during the fleeting reign of the piloting "aristocracy" during the mid-1800's, and

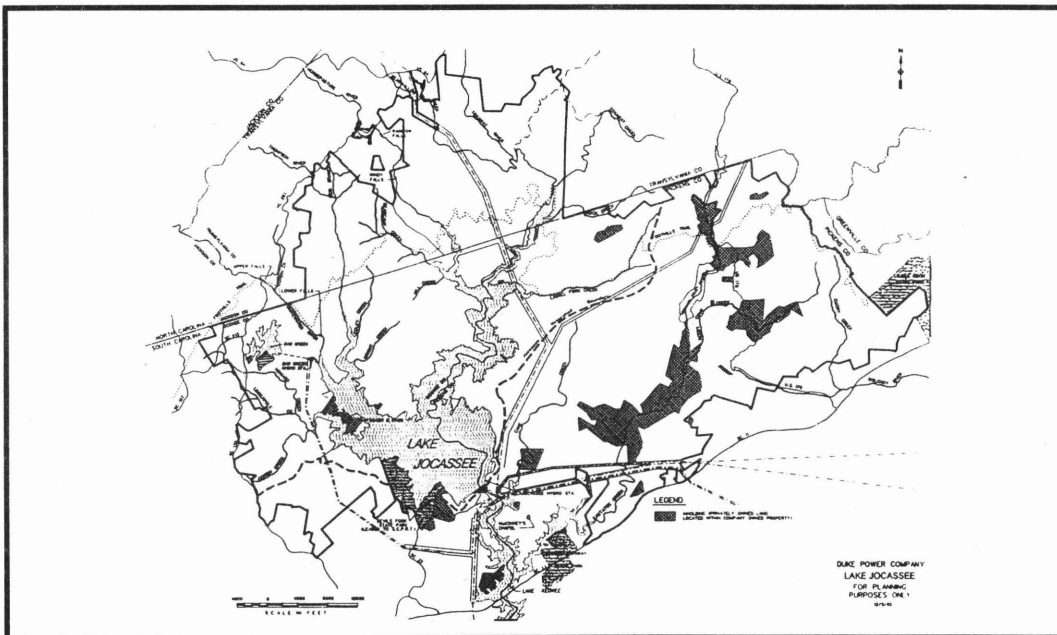
it was during this time that he recognized how deeply ingrained in American and European thought was the notion of exploiting this river's wealth of resources.

## The Chance to Protect

Nearly a century and a half has passed since Clemens complained of the Mississippi's artificial lighting system and, fortunately enough, there are still a few substantial wild areas east of the Mississippi that host unique and unspeakable natural powers which rival those of that great river. One of the most significant of these wild lands happens to be in our own backyard and is for sale. On November 13, 1996, Duke Power Company announced that it will make some 50,000 acres of its lands along the southeastern portion of the Blue Ridge Escarpment draining into Lake Jocassee available for purchase by public agencies. Duke has given Federal, North and South Carolina agencies only three years to come up with a total of some sixty million dollars. If the price isn't met, one expects that the land will be divided piecemeal and sold to the highest bidder. We are now presented with a single, monumental opportunity to heed Clemens' advice: To reclaim and protect a wild area from the hands of unrestrained development.

**The Land at Stake:** The sale boundary encompasses portions of four of the seven major headwater gorges of the Savannah River system: the Whitewater, Thompson, Horsepasture and Toxaway Rivers, and also includes the Musterground area along with a significant stretch of the 70 mile Foothills Trail, which winds through these river gorges on its way to Table Rock State Park in South Carolina. Although Duke has systematically lumbered this land for nearly forty years, the area is largely recovering native forests; unfragmented, remote terrain

which acts as a keystone natural link between the Chattooga River Basin and the high mountain ranges to the north and west (the Nantahalas, Fishhawks, Cowees and Plott Balsams), and the South Carolina



## Blue Ridge Escarpment *continued*

Mountain Bridge Wilderness and the Green River watershed to the east.

The South-eastern Blue Ridge Escarpment may not rival the "Body of our Nation" in terms of its breadth, but it packs awesome natural powers that, in part, even Duke Power Company is unwilling to give up. Duke is considering retaining some 8,000 acres of the Escarpment, which includes Bearcamp Creek Gorge: one of the major tributaries of the National Wild and Scenic Horsepasture River, for potential development of another pump storage facility (in addition to the existing facility at Bad Creek). Although relatively small in size, the land Duke wishes to retain is both scenically and biologically significant. A pump storage development here would cut the heart out of this remote Escarpment ecosystem.

Since the late 1800's, with the rediscovery of the Oconee Bell Flower -- the famous "lost" endemic -- the Escarpment repeatedly has been recognized for its unique natural history and biological significance. Unfortunately, Duke's construction of Lake Jocassee in the early 1960's not only inundated the spectacular Keowee River valley, but also destroyed most populations of this globally rare plant. Throughout the past fifty years science has uncovered some of the most intriguing finds in the Escarpment's incredibly steep and varied landscape. The range of environments are so extreme (elevations change over 2,000 feet in just five miles) that species of sub-arctic and north temperate origins such as the Dwarf Ground Juniper and the Long Tailed Shrew inhabit the same watershed as species like the Appalachian Bristly Filmy Fern, whose closest relatives inhabit the tropical Americas. The plant richness here is astonishing: nearly 300 different kinds of mosses are found along the 2.5 mile stretch from Upper Whitewater Falls to Lake Jocassee -- more moss species than found in the entire state of California. Some of the most intriguing organisms found on this continent inhabit these gorges. Take, for instance, the Single Sorus-Spleenwort. In North America, this fern is only known from the Escarpment Gorges, a sinkhole in northern Alabama, and the Huachuca Mountains of southeastern Arizona! Or consider the Green Salamander. The Escarpment population of this crevice-dwelling animal is several hundred miles east of its continuous range along the Cumberland Plateau. This removed Escarpment colony, which resulted from fragmentation of its range during the ice age, has been genetically isolated from the main population for over 15,000 years.



*The Wild & Scenic Horsepasture River (photo C. Zartman)*

The sheer ruggedness and unique climatic history of the Escarpment has created conditions which provide refuge for animals ranging from black bear to salamanders to eastern songbirds. The relatively recent discovery of the Swainson's Warbler in this region illustrates how truly remote this land is. This rare songbird, whose only substantial breeding ground in the mountains are the Rhododendron thickets of the Southeastern Escarpment, wasn't even known to nest outside of the dense canebrakes of the Southeastern coastal plain -- nearly 500 miles distant -- until the early 1960's. The high annual rainfall in the Escarpment area and neighboring southern mountain ranges has made this region a center of lungless salamander diversification (a tribe of salamanders that includes the

Green Salamander). Indeed, along certain small creeks of the Escarpment a discerning explorer can find up to five distinct salamander species of the same genus within 10 feet of the stream. This community of *Desmognathus* (Dusky) salamanders is present across the Southeast but reaches its greatest complexity in the Escarpment mountains where the high rainfall has allowed the group to move farther away from aquatic habitats and exploit the perpetually damp leaf layer in the woods. This handful of examples only skims the surface in illustrating how the Escarpment

region is a showcase of biological phenomena. Their potential uses to humans for medicinal and other purposes remains largely unexplored.

**The Consequence:** From the hundred-foot waterfalls to the sheer cliffs and narrow, hemlock coves which pepper the Escarpment, the region ranks as nationally significant. It is a place that doesn't only provide solitude to myriad forms of wildlife, but also can offer solitude to the human, worn by the ever-encroaching pressures of civilization. Our society hopefully has learned something since the meteoric rise and fall of the steamboat "aristocracy" and the hasty retreat of Mississippi River wildlands. We have seen the spoils of civilization and the empty feeling that too often follows in its wake. Now we can keep the Southeastern Blue Ridge Escarpment safe from unchecked development. Please contact your public representatives and urge them to earmark funds to purchase the Escarpment for generations to come. Also, urge them to convince Duke Power Company "to walk in the light of creative altruism" and release the remaining 8,000 acres of the Escarpment's underbelly to the public and to wildness. One pump storage station is enough!





# Endangered Species and the Private Land Owner

***Bridging the Gap Between the Private Land Owner and the Conservation of Endangered Species:*** Interview with Mr. Ralph Costa of the US Fish and Wildlife Service, about the "Safe Harbors" Recovery Program.

The kitchen table of a disgruntled land owner is an unlikely setting for the conception of a conservation program, but that was where Mr. Ralph Costa of the US Fish and Wildlife Service (FWS) laid the frame work of the Safe Harbor Program for the Endangered Red- Cockaded Woodpecker (RCW). The ideological origins of any revolutionary use of the law usually can be traced to a difficult challenge. Nearly five years ago, Mr. Costa was faced with the challenge

of answering this question from a North Carolina landowner: "If I manage my land for its native forests, and I manage it sustainably, there's a greater chance that this Endangered Woodpecker will move onto my property and that the government will burden me with strict land use guidelines.... Why shouldn't I just clear cut my land to ensure that the woodpeckers and the government won't show up on my property?" Mr. Costa recognized the need to

dismantle the notion that the presence of additional RCW's (or any other Endangered Species) on private property will unduly burden the private land owner. He realized that this could only be accomplished by providing positive incentives to private land owners who preserve RCW habitat. The initial success of the Safe Harbor program lies in the fact that the private land owner is granted a "future takings permit," which ensures that no participants are indefinitely bound to "preservation management" of their land. The RCW Safe Harbor Program represents the first successful implementation of the "future takings" concept since its origination nearly five years ago. ***This interview with Ralph Costa (RC) was conducted by Chas Zartman (CZ) in Clemson University's Lehotsky Hall on January 8th, 1997.***

CZ: So, in a nutshell, the Safe Harbor Program is based on a contract which permits a future incidental "take"....

RC: ...For critters that don't yet exist.

CZ: This is the first case where the Safe Harbor Program has been implemented. Is this program being designed for other species as well?

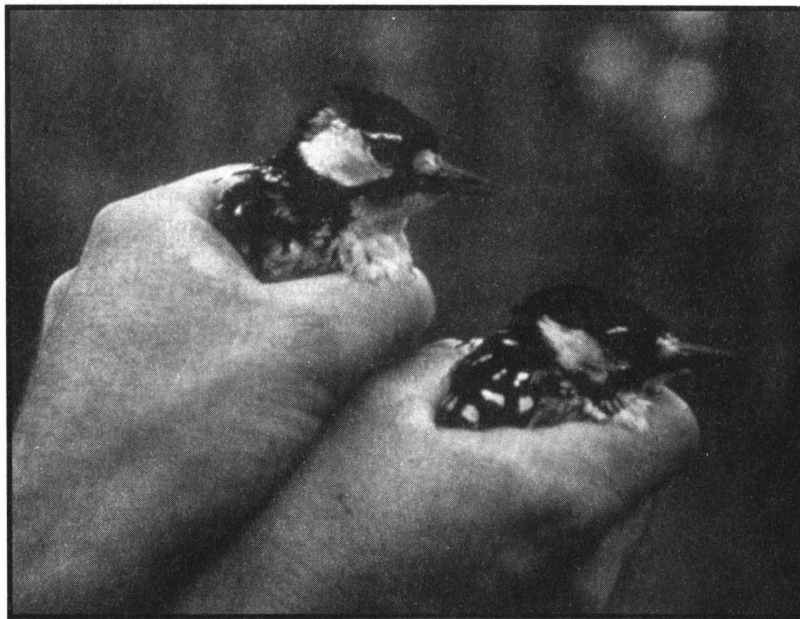
RC: Yes, it's now being used with other species. In fact, our national office is working on a national Safe Harbor policy. Realize -- this program is not in the Endangered Species Act (ESA). We invented the program outside of the Act, which Secretary Babbitt likes to claim -- and justifiably so -- as the "flexibility of ESA". We came up with a good thing that was never thought about or directly discussed in

the ESA, and now our Washington office wants to make it a national policy. That policy is evolving as we speak, and will soon be going out in the Federal Register for public comment and review.

CZ: What would you say, with regard to the Red-Cockaded Woodpecker Safe Harbor Program, are the positive incentives for the private land owner for getting involved?

RC: One of the motivations is that the paradigm has been for years -- with some land

owners -- that "more is worse." That is, you don't want to do anything on your property that's going to encourage Endangered species because with Endangered species come legal responsibilities, and with that can come financial responsibilities. For example, if you have a group of woodpeckers on private land, the sixty acres that we recommend that the private land owners retain for each group of woodpeckers could be worth at least \$150,000. But to a mom-and-pop wood lot owner -- and we have a fair number of those harboring RCW's -- one group of birds on their property can saddle them with significant legal and financial responsibilities. They are not likely to do the type of habitat management that encourages additional RCW's to occupy their land. So, the biggest incentive is that Safe Harbor shifts that paradigm from "more is worse" to "more is not worse". If you don't have any woodpeckers on your property -- and if you look at the list of North Carolina Safe Harbor participants you'll



*Male & female Red-cockaded woodpeckers (photo - Forest Service)*

## Interview *continued*

notice that about 50% of the participants don't have any birds but would enjoy having birds -- they may, one day down the road, not want these birds on their property nor the associated legal responsibility. The neatest thing about Safe Harbor is that it has shifted the motivation, and there is no longer this fear that if you do something good on your land and it benefits woodpeckers, you're going to incur additional responsibility from the Federal government. Safe Harbor has reduced the fear factor and given land owners more flexibility.

CZ: So, Safe Harbor participants who have no RCW's on their property have to perform sound, voluntary habitat improvements -- clearing out hardwoods and installing artificial nesting cavities -- similar to those people who have breeding RCW's?

RC: Yes, otherwise there's no point in signing up for Safe Harbor. If they're not going to do something that's either going to attract birds to their property or benefit some birds on someone else's property, then there's really no incentive for us to get into an agreement with them.

CZ: Are private land owners required to make all of the habitat improvements themselves, or does the FWS provide assistance?

RC: Actually, the several land owners in our North Carolina program have used "Partners for Wildlife" money to support their activities. There is also money available from the Stewardship Incentive Program (SIP) which comes through Forest Service funds, and there are various other types of cost-shares that we can do with private land owners. Providing funds for all land owners is impossible because we don't have unlimited resources. A lot of the participants are already doing things on their property that would benefit woodpeckers: raking pine straw, prescribed burning, growing long leaf pine. They're doing the good things, and they will continue to do these good things through this agreement, with assurances that they're not going to be restricted from using their land for other purposes in the future.

CZ: What regulations are private land owners subject to if an Endangered species inhabits their property?

RC: No person under the law can "take" an Endangered species. "To take" in part, is defined as "to harm, harass, shoot, molest, trap, or kill". The FWS has defined "harm" in their code of Federal regulations to mean the loss or degradation of habitat to the point where an animal can no longer feed, breed, or shelter itself. Although we do not have specific "regulation" for RCW's, we do have private land guide lines. These guide lines recommend that a minimum of 60 acres, including so many trees of a certain size, be retained for each RCW's group. All the land owners

who follow the guidance are issued a "concurrence letter". They send us their timber sale design, and we evaluate whether or not it will concur with our recommendations for habitat protection.

CZ: What happens if the private land owner doesn't follow the guide lines, and the woodpecker population declines notably?

RC: That would be the time when we could initiate an investigation -- or their neighbor could, as well. Third party lawsuits can be pursued under the ESA. If you live next to a land owner whose property was in long leaf pine forest and you knew he had a group of woodpeckers, when you woke up one morning and there were chain saws out there busy cutting down the forest where you knew RCW's cavity trees were, you could sue your neighbor or call up the FWS to investigate it. So the guide lines are there to protect the land owner. If they follow the guide lines and the birds disappear, we obviously wouldn't consider legal action against the land owner. If they follow the guide lines and the birds don't disappear, they're in great shape. If they don't follow the guide lines and the birds don't disappear, we have nothing to investigate. If they don't follow the guidelines and the birds disappear, that opens up the potential for an investigation.

CZ: I guess the FWS is monitoring woodpecker populations on both private and public lands?

RC: We try to, but we have no authority, without the land owner's permission, to go onto private lands. We monitor in the sense that we're building innovative partnerships with private land owners. We're trying to design these programs so we have more cooperation, instead of confrontation. The "big stick" approach has not worked. We're conserving a lot more RCW's on private land today than we were 5 years ago because of the innovative conservation agreements that we have negotiated and implemented with many, varied private land owners. For instance, we now have six lumber company agreements for RCW's, with four more in draft. They've agreed to take care of their birds, and in three cases have voluntarily agreed to increase the number of birds that they have on their property. This stands as a stark contrast to FWS and timber company relationships regarding RCW's a decade ago.

CZ: So, a Safe Harbor participant who originally had no woodpecker groups can revert back to zero population level at anytime in the future.

RC: Exactly. Now the question is: What is the biological value of the program? It seems like the protection is ephemeral in time and space. Look at what has happened in eighteen months, however. We now have protected 48 of 110 groups in the sand hills of North Carolina under the

## Interview *continued*

Safe Harbor permit. These lands can support 58 additional groups, so we're now putting artificial cavities on their property as to grow these 58 groups. As we create more groups of birds, some juveniles can be translocated to other properties, including recovery populations. Ultimately, we'll have more birds added to the overall population. Also, it isn't very likely that all Safe Harbor participants are going to check out of the program at one time. We envision an increased number of woodpeckers, as some people join the program and others leave it. We're also trying to focus on these property owners for potential conservation easements. Under Safe Harbor, land owners have to agree to maintain base line habitat, so the 45 groups are better protected than without Safe Harbor. So we offer private land owners an opportunity to care for the groups they have, and we'll give them a permit to "take" ones they create in the future.

CZ: Would you say that you've received positive feedback for this program from individuals and companies owning various sized tracts of land?

RC: Yes, and I think that's adequately illustrated by the list of tract sizes of present Safe Harbors participants. Acreage ranges from 2.5 acres to 2,700 acres. A fair number of these are golf courses -- Pinehurst #8, Tallamore, Pinehurst Plantation -- these are with million-dollar corporations. There are also private land owners with 50 to 1,000 acre parcels of land. So the economic range is diverse. The Safe Harbors program covers the economic gamut from small land owners to large corporations.

CZ: I guess taking a "shotgun approach" by attracting participants with larger tracts of land makes the most sense biologically. Larger tracts support more potential habitat for a greater number of new groups.

RC: Yes, there are biological benefits with large tracts. However even small tracts with the potential for only 1 or 2 RCW groups can be biologically valuable, depending on their location relative to recovery or support populations.

CZ: What is the geographic range of land owners who are participating in this project?

RC: We're currently working on (drafts have been prepared) five state-wide Safe Harbor permits. Permits are in draft form for Texas, Louisiana, Alabama, Georgia and South Carolina. Florida and North Carolina are considering them. Before long, we hope to have the RCW Safe Harbor opportunity for any land owner in the Southeast who wishes to participate. It will quickly become a huge regional program.

CZ: The natural range of the Red-Cockaded Woodpecker co-occurs with long leaf pine forests, right?

RC: Yes, permanently.

CZ: So you wouldn't Safe Harbor property in the upper South Carolina piedmont -- in the Chattooga River Basin?

RC: No, not for RCW's, but it may be applicable for other listed species in that ecosystem.

CZ: As you've already stated, implementing the Safe Harbor program is a classic example of the flexibility of the ESA. Do you see any other avenues of flexibility in the ESA that will strengthen its purpose while also alleviating people's fears about the regulations typically associated with the Act?

RC: That's a good question. Secretary Babbitt has already done that with some of the policies regarding exempting certain private land owners who own five acres or less from certain restrictions regarding listed species. This flexibility is so very small land owners aren't severely impacted by the presence of listed species on their property. There have been a series of policies that the Secretary has established; however, another piece of flexibility that may improve the ESA is the "no take" conservation agreement. Essentially, the ESA tells you what the consequences are if you "take" something illegally; that's under Section 9 of the Act. ESA also explains how you can "take" something legally under Section 10, but there's really nothing in the ESA to explain the process if you didn't want, or didn't need to "take" a species. The "no take" concept was born with the Georgia-Pacific company when they came forward and said they were willing to harbor 90 groups of woodpeckers in Arkansas. These "no take" conservation plans -- "Memorandums of Agreement or Understanding" as we call them -- provide legal predictability for the land owners and benefits for the species. We have similar agreements with five other companies. I think that concept should be added to the ESA. The other thing that would be nice is a budget to provide economic incentives. We have some of that in our Partnerships in Wildlife programs -- which are FWS dollars. But it would be really nice in the ESA, and in the reauthorization bill that goes along with it, to specifically have a source of money available -- that maybe could be cost-shared with the National Fish and Wildlife Foundation -- where we can go to a land owner who has 14 groups of woodpeckers where a "mid-story problem" is developing, and we could offer money for the land owner to get control of those hardwoods.

CZ: What problems develop with a hardwood mid-story?

RC: Hardwood mid-story causes abandonment of nesting habitat. Why they leave remains somewhat of a mystery, though a very clear relationship exists: Birds are typically



## Interview *continued*

absent in pine habitat where the hardwood canopy reaches cavity level. Quantifying exactly why this is happening is quite difficult. One accepted theory is increased competition and predation. The presence of turkey oak and sweet gum in long leaf pine forests brings other species into the picture which compete for the RCW's cavities and prey upon eggs and nestlings.

CZ: What species?

RC: Competitors include other woodpecker species, like Red bellied woodpeckers. They may not rely on hardwoods but they can exist in that kind of environment. Hardwoods also contribute to increased predation from snakes. The reason RCW's cover the trees in sap is to keep snakes from climbing into their cavities. That's the woodpecker's defense. As soon as the hardwood reaches cavity level, the snakes can avoid the sap by accessing the cavity from extending hardwood limbs touching the pine. It has been documented that both snakes and flying squirrels eat the eggs.

CZ: Based on the fact that the recent trend of the last Congress was to weaken some aspects of the ESA, the moratorium on listing new species and the dropping of Candidate status, do you have an optimistic view of these new concepts that we've just been talking about being included in legislation in the next Congress?

RC: Yes, I really do. I think Congress got the message loud and clear from the American public regarding the Clean Water Act and the Clean Air Act. The ESA was in the news early on in the last Congress. It hasn't been on the front burner in a while but the surveys that I've seen and the things I hear indicate that the American people are concerned about Endangered and rare birds, and they want to save those rare animals and plants, just like they want to have clean air and clean water. It's a lot more difficult for the average citizen to understand a relationship between our own survival as a species and Endangered species conservation, but it's not nearly as difficult to build that relationship with clean air and clean water. Without good water the average human is dead within seven or eight days. Without breathable air the average human will expire in minutes. I always get asked the questions: "What good is a Red-Cockaded woodpecker? What good is a Manatee? Why are we protecting Panthers? Why are we protecting Red wolves? Why is the California condor important?" We

may not have hard scientific reasons why any of those particular species have direct biological value to us as a species but there is no doubt in my mind, as a biologist, that throwing these species off the planet is not a healthy way to behave. We've already taken to extinction, on this continent, 500 species and sub-species since we hit the

beaches in the 1500's, and it doesn't make ecological sense to get rid of more species -- species like the Red-Cockaded woodpecker that make the only long-term cavities in pine trees in Southern forests. There are fifteen other species of birds that use these cavities as well -- all insect-eaters. The Southern Pine Beetle is in the Southeast. It would make sense that if we had Red-Cockaded scattered throughout the healthy forests we'd have a lot more insectivorous birds eating Southern Pine Beetles, possibly helping to suppress the huge epidemics that our forests have suffered at large. That's a biological niche that the woodpecker plays. In 1990, excluding a couple conservation easements, there were no formal

temporary or permanent protection programs for Red-Cockaded woodpecker groups on private lands. Today we have literally hundreds of groups in some sort of protection, whether it's Safe Harbor, or "no take" conservation agreements. So in the last three or four years we have many private land owners who we've found common ground with. I think we need to be sensitive to the issues of private property land rights, but private citizens hopefully also need to be sensitive to what endangerment is.

CZ: I appreciate you spending the time in this interview. The impression I get of the program is that it's a visionary approach towards conserving Endangered species on private land. Trying to find, as you say, common ground between issues that are most important to private land owners with the issues that are most important to the Endangered species must be demanding.

RC: Yes (laughter), it's a challenge.

**"We've already taken to extinction, on this continent, 500 species and sub-species since we hit the beaches in the 1600's, and it doesn't make ecological sense to get rid of more species -- species like the Red-Cockaded woodpecker that make the only long-term cavities in pine trees in Southern forests. There are fifteen other species of birds that use these cavities as well -- all insect-eaters. The Southern Pine Beetle is in the Southeast. It would make sense that if we had Red-Cockaded scattered throughout the healthy forests we'd have a lot more insectivorous birds eating Southern Pine Beetles, possibly helping to suppress the huge epidemics that our forests have suffered at large."**



# PILT vs. 25% Fund Payment: The Real Story

**Cindy Berrier**

*Thanks to Art Clark of ERIN for valuable assistance in research*

***Payment In Lieu of Taxes Act, P.L. 103-397 (S.455)***

***Twenty Five Percent Fund Act, Title 16 U.S.C. 500***

We have all heard many times from the Forest Service and the timber industry that counties which contain Federal lands benefit monetarily from timber harvesting on these public lands. This argument is carried further to promote the notion that timber extraction is necessary to help counties pay for schools and roads. Although counties do receive some degree of remuneration for timber harvesting on Federal lands within their jurisdiction, this fact oftentimes is marketed to justify intensive and excessive timber extraction on our national forests.

The financial compensation referred to by the Forest Service and other interests is a function of the Twenty-Five Percent Fund Act of 1908 (16 U.S.C. 500). This Act stipulates that 25% of a national forest's gross receipts are to be transferred from the Federal Treasury back to the state where the national forest is located, so that the receipts can be used towards roads and schools in the counties where the receipts were earned. This figure could be substantial. However, the complex formulas used to calculate this amount are not based exclusively on timber receipts; in fact, the receipts include: grazing fees, land use fees (such as private road right-of-ways), special use fees/permits (such as commercial outfitting, guiding and photography businesses), power company fees, recreation user fees, mineral extraction fees, quartz crystal fees, the Knutsen-Vandenburg Act fund, the timber purchaser's road credit fund, and the timber salvage sales fund. The gross receipts figure used to calculate the 25% amount represents the combined total of all of these items, which represent many of the diverse goods and services gained from our national forests lands. If, for example, these other fees were increased and the timber sales were decreased, the figure could remain constant. Thus, the notion that timber extraction on public lands is necessary to support county schools and roads is overblown. Furthermore, this amount is eclipsed by another payment program.

This program is called "Payment in Lieu of Taxes" (PILT). PILT pays a per-acre amount -- regardless of any timber harvesting -- to those counties with large tracts of entitlement land (national forests and/or national parks). The specific language of the PILT payment law (amended in 1994) states that for each acre of entitlement land, counties will be paid 93 cents during fiscal year 1995, \$1.11 during fiscal year 1996, \$1.29 during fiscal year 1997, \$1.47 during fiscal year 1998, \$1.65 during fiscal year 1999, and each year thereafter adjusted for inflation. The purpose of this Act is to compensate those counties with large tracts of entitlement land for loss of income otherwise

generated from property taxes. The formula used to calculate the PILT payment is complex, and the actual dollar amount is derived through a series of calculations based on comparing values from two alternatives, and taking the lesser value from the first alternative and the larger value in the second alternative. Then this value is subjected to the deductions of eleven different payment programs, including the 25% Fund, and that final figure is further subjected to whatever percentage Congress has appropriated to the Fund for that year. Thus, the PILT Act payments differ from the 25% Fund payments, yet they are mathematically linked: one-half of the 25% Fund payment is subtracted from the PILT amount. These payments go directly to the county. However, the PILT program ultimately is dependent on the amount Congress appropriates for the program during the yearly Federal budget resolution process, unlike the 25% Fund which is dependent on income and revenue sources from actual gross receipts. (For example, if \$1,000. was the amount due to the county, but Congress only appropriated 68% of the whole fund's requirements, then only 68% of that \$1,000. would be sent regardless of the amount due.)

The 25% Fund, unlike the PILT program, is not a Congressionally appropriated fund and therefore is not affected by Federal funding cutbacks. These payments are sent to the State Treasury (not directly to the counties) in a two-part payment. The first payment amount is sent in October and is based on estimated gross receipt figures of the third quarter which ends in June, and is 75% of this figure. In October, when the fiscal year ends and the actual figures are in, the payment balance is adjusted and paid to the states by the first week in December.

The assumption that the 25% Fund and PILT payment programs are the same is not accurate, even though they do cross paths in a step of the PILT calculation. The counties will receive a payment from both PILT and the 25% Fund; however, as stated above, one-half of the 25% Fund payment amount reduces the PILT payment. In summary: Cutting even more timber on our national forests does not produce a windfall of funds for the counties where the public land is located. It merely would reduce the county's PILT payment, which would be offset by the increase in the 25% Fund payment.

For the purpose of understanding these two programs, the calculations on the next page are based on the actual figures received in 1996 from the Forest Service, the Georgia State Treasury, and the Bureau of Land Management regarding Rabun County, GA. The second set of figures used for a comparison are based on NO "regular" TIMBER receipts, but do include *salvage* timber.

# PILT and 25% Fund Calculation Tables

## TABLE 1-1

### RABUN COUNTY

National Forest Acreage=148,748

#### PILT PAYMENT

Alternate (A)

$\$1.11 + \$0.05$  (inflation Adjmt.) x 148,748

acres= $\$172,391.08$

$\$172,391.08 - \$57,447$  (50% of prior yrs. 25% Fund payment) =  $\$114,894 *$

Alternate (B)

$\$.15 + \$0.01$  (inflation Adjmt.) x 148,748 =  $\$23,778$

Alternate (C) Population Ceiling

12,000 (Rabun County Population) x  $\$51.21 = \$614,520$

The figures are then compared as follows:

The greater figure of Alt(A) & Alt(B) is compared to the figure in Alt.(C) and the lesser of those figures = **the PILT payment: \$114,894.00\***

\*This amount is then subjected to a proration dependent on the percentage of the Funds appropriated allocation. (This Fund has not been fully appropriated since 1994.)

## TABLE 1-2

### RABUN COUNTY

#### TWENTY FIVE PERCENT FUND

Region 8 - Chattahoochee National Forest

**Gross receipts** (These figures represent approx. 20% of the total combined receipts on the Chattahoochee-Oconee National Forest: 20% figure is based on a percentage of total Chattahoochee/Oconee NF acres to Rabun County acres.)

#### Fiscal Year 1996

Timber	103,231.53
Grazing	0
Land-Uses	9,399.00
Recreation Special Uses	5,231.95
Power /Utilities	420.10
Minerals	142.49
Recreation User Fees	44,470.33
Quartz Crystals	0
<b>Total NFF</b>	<b>\$ 162,895.40</b>

added to :

Knutsen-

Vandenberg Fund	123,412.11
Timber Purchasers	
Road Credit Fund	24,087.62
Salvage Sales	208,710.44
<b>Total</b>	<b>\$ 519,105.57</b>

**Twenty Five Percent Fund Payment is (Gross Receipts)**

$\$519,105.57 \times 25\% = \$129,776.39*$

NOTES:

\*Fifty percent of this years payment figure will be used to **reduce next year's PILT payment** as illustrated in PILT formula. Also, remember the counties receive both of these payments each year.

## TABLE 2-1 without Timber Receipts

### RABUN COUNTY

National Forest Acreage=148,748

#### PILT PAYMENT

Alternate (A)

$\$1.11 + \$0.05$  (inflation Adjmt.) x 148,748

acres= $\$172,391.08$

$\$172,391.08 - \$35,932.96$  (50% of prior yrs. 25% Fund payment **without timber**)=  $\$136,458.12 *$

Alternate (B)

$\$.15 + \$0.01$  (inflation Adjmt.) x 148,748 =  $\$23,778$

(C) Population Ceiling

12,000 (Rabun County Population) x  $\$51.21 = \$614,520$

The figures are then compared as follows:

The greater figure of Alt(A) & Alt(B) is compared to the figure in (C) and the lesser of those figures = **the PILT payment: \$136,458.12\***

## TABLE 2-2

Comparison to Table 1-2 **without Timber Receipts**

### RABUN COUNTY

#### TWENTY FIVE PERCENT FUND

Region 8 - Chattahoochee National Forest

**Gross receipts** (These figures represent an approx. 20% of the total combined receipts on the Chattahoochee-Oconee National Forest : 20% figure is based on a percentage of total Chattahoochee/Oconee NF acres to Rabun County acres.)

#### Fiscal Year 1996

Timber	00
Grazing	00
Land-Uses	9,399.00
Recreation Special Uses	5,231.95
Power /Utilities	420.10
Minerals	142.49
Recreation User Fees	44,470.33
Quartz Crystals	00
<b>Total NFF</b>	<b>\$ 59,663.87</b>

added to :

Knutsen-

Vandenberg Fund	123,412.11
Timber Purchasers	
Road Credit Fund	24,087.62
Salvage Sales	208,710.44
<b>Total</b>	<b>\$ 415,874.04</b>

**Twenty Five Percent Fund Payment is (Gross Receipts)**

$\$415,874.04 \times 25\% = \$103,968.51*$

NOTES:

\*This payment will be sent to the State Treasurer, who will then make payment to the counties for schools and roads. Each State has their own laws regarding how the money is used and divided; in Georgia the monies are to be used equally, half for roads and half for schools.





# Reduce, Re-use, & Recycle

## What does Recycled Mean?

**Kathryn Kolb**

Completely recycled products are made from "post-consumer" waste. Post-consumer waste come from a consumer product that was purchased, used, recycled and then re-made into another consumer product. In contrast, "pre-consumer" materials are also labeled as recycled, but are derived from mill and factory tailings, and were never used in consumer products. Though many products claim to be recycled, or 100% recycled, it often means they are only partially made from post-consumer waste materials. **Let the buyer beware!**

For example, let us compare some brands of toilet paper. The "Seventh Generation" and "Envision" tissues are made from 100% and 95% post-consumer waste. These are truly recycled, A+ products. They do cost a little more, in part due to industry incentives and mechanisms which support the status quo. These and other "green" paper products can be found in Atlanta, Georgia, at Sevananda, Return to Eden, Rainbow Grocery, the Common Pond, and several other stores.

The "Green Forest" tissue which claims to be "the right thing to do for the environment" is only 10% post-consumer waste. The label says "100% recycled" because the rest is made from pre-consumer waste material, and no virgin tree fiber is used. Since the paper used in this tissue did, of course, originally come from trees, we think it's somewhat of a stretch for the "Green Forest" label to claim that "no trees were cut down to make this product." This product gets a "B" grade, and its marketing a "C". This tissue is widely stocked at local, mainstream supermarkets.

"Charmin" tissue, a Procter & Gamble product, is made with no recycled fiber at all. It is made entirely from virgin wood pulp: the long fibers come from pine and spruce trees, and the short fibers come from maple and oak trees. We know of no maple and oak tree-farms; thus, this product gets an "F". (Also, Procter & Gamble currently is being boycotted for animal testing abuses.) Other fluffy-soft name brand toilet papers are made similarly to "Charmin". If you have questions about a product that you purchase, simply call the 800 # on the label, and ask how it's made.

Interestingly, "Envision" and "Green Forest" tissue are made by the same company, Ft. Howard, which buys recycled paper from an Atlanta company called Paper Stock Dealers. All types of waste paper can be taken to Paper Stock Dealers, located at 54 McDonough Blvd. in Atlanta, and they'll even pay you for it. Their telephone number is:

404-522-9121.

It's interesting also to note that one reason recycled paper products are more expensive than non-recycled ones is because timber-cutting on our national forests is partially subsidized by the federal government (our tax dollars!), making the cost of these wood fibers artificially low, and 40 - 50% of trees cut in national forests are made into paper fiber products. The Ft. Howard Company commented that they could make their products less expensive if more consumers would recycle their paper. Also, there are many paper products currently available that are not made from trees at all, but use kenaf, hemp, and other fibers.

## Want To Reduce junk calls and mail?

Your time is valuable, and dealing with unwanted phone and mail solicitations can cut into that time. How can you avoid those irritating phone calls that always seem to come at supper time, and the junk mail that clogs your mailbox and the landfills?

To reduce the amount of national telemarketing calls or advertising mail you receive at home, you can register with Direct Marketing Association's (DMA) Telephone Preference Service (TPS) and Mail Preference Service (MPS). To register, send a request letter, including your name, address, city, state, zip code, and phone number. Upon request, the DMA will distribute your request to companies subscribing to the TPS and MPS.

Within months, TPS will reduce the amount of sales calls you receive from national marketers soliciting products such as credit cards, long distance service and magazine subscriptions. MPS will reduce the mail solicitations you receive. Your name remains on file for five years. After the initial five-year period, you can register again with TPS and MPS.

In the meantime, you will continue to receive communications from other companies with which you already do business, as well as local organizations which are not affiliated with TPS and MPS.

Address your request to:

Telephone Preference Service  
Direct Marketing Association  
P.O. Box 9014  
Farmingdale, NY 11735-9014

Mail Preference Service  
Direct Marketing Association  
P.O. Box 9008  
Farmingdale, NY 11735-9008

# Chip Mills Invade the Southeast

## Groups Unite to Defend Native Southern Forests Against the Chip Mill Industry

Due to accelerated clearcutting of native forests in the South prompted by the multi-national pulp and paper industry, over twenty citizen's groups from Arkansas to North Carolina recently united as the "Dogwood Alliance". The Alliance is calling for a moratorium on the permitting of any more chip mills, until government agencies investigate the economic and environmental impacts of the industry's unsustainable forestry practices. The creation of the Alliance marks the first time in the history of the region that forest activists have coordinated their efforts on such a large scale to focus on a single issue.

The grassroots citizen's groups are responding to large pulp and paper corporations that have shifted their operations from the Pacific Northwest to the Southeast. This move has been forced by the industry's unsustainable practice of intense and relentless clearcutting. Since the mid-1980's clearcutting in the South has accelerated due to the operation of more than eighty high-capacity chip mills, which process whole trees into wood chips for making paper products. The Dogwood Alliance expects several more permit applications to be filed this year for new chip mills in Georgia, North Carolina, Florida and Arkansas. The Alliance includes members as far northwest as Missouri, where Willamette Industries of Portland, Oregon is applying for a chip mill permit.

Chip mills, a highly mechanized arm of the pulp and paper industry, can turn a tree which took thirty years to grow into wood chips in a matter of seconds. Because of the chip mill's tremendous appetite for whole trees, massive

clearcutting is encouraged. For example, in Georgia alone more than 130,000 acres of forests are clearcut each year to feed the 13 high-capacity chip mills located in the state.

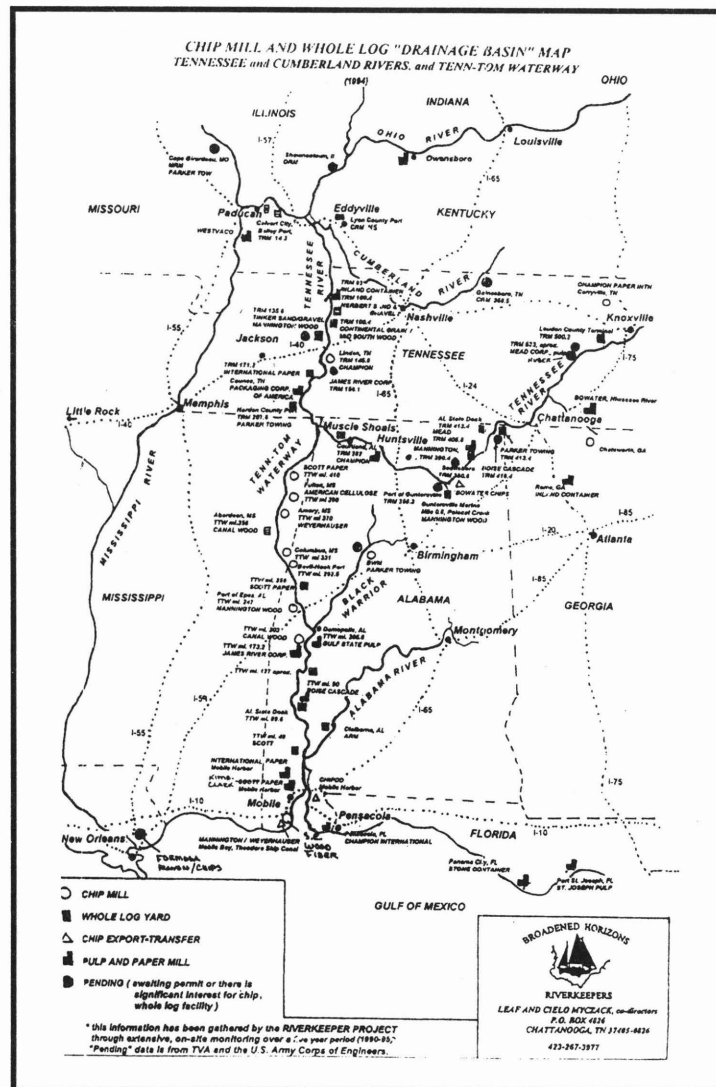
A chip mill can consume more trees in one month than an average size saw mill consumes in an entire year. Currently, increased chip mill operations have caused some

saw mills in the region to go out of business due to total liquidation of local wood supplies. Since chip mills can utilize small trees which would make good lumber if left to grow for another twenty years, they constitute an ominous threat to the future of many existing saw mills.

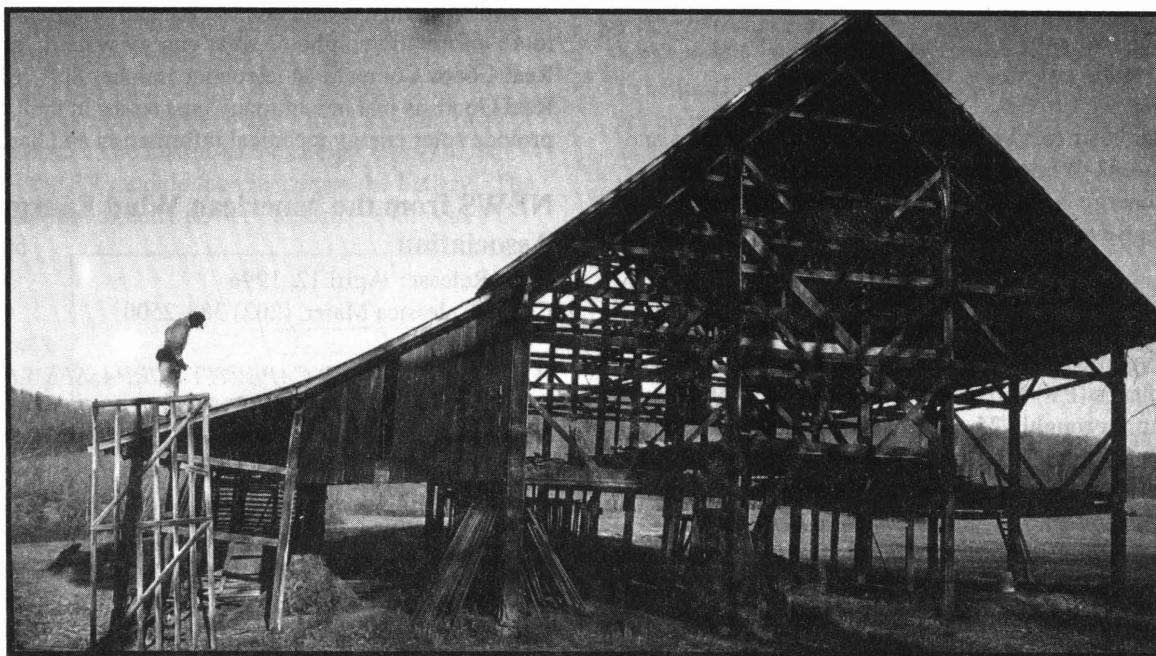
"Today, there are over 80 high-capacity chip mills in the South which have already clearcut millions of acres of forests, severely impacting native ecosystems and local economies" says Cielo Myczack, longtime chip mill activist and Co-Coordinator of the Dogwood Alliance. "Agencies are permitting these facilities without considering the environmental and economic impacts; we are simply asking that no more chip mill permits be issued until a comprehensive environmental and economic impact study is completed."

The Alliance is also working towards educating and empowering local communities threatened by chip mills by informing land owners about the negative impacts of liquidating their timber for pulp (instead of high-quality saw timber), and by promoting sustainable forestry practices, encouraging wood consumption reduction, and identifying alternatives to using trees for paper products.

For further information contact Dogwood Alliance Coordinators Cielo Myczack at 423/267-3977 and/or Danna Smith at 770/867-0197; or the CRWC office.



# Re-using & Recycling Wood Products



*Located in the rural community of Loudon, Tennessee, this old barn was saved from the bulldozers: The barn was completely dismantled, and the wood and tin roof will be recycled. (photo - Robert Harrison)*



*Uncle James watches the dismantling of the old barn (photo - N. Hayler)*



*A portion of the 10,000 board ft. of salvaged white oak and heart pine timber (photo - N. Hayler)*

**When we re-use wood products salvaged from old buildings, we reduce demand which in turn reduces the pressures to over-harvest our native forests.**

During Christmas vacation Executive Director Buzz Williams responded to a call from a friend to help tear down an old barn. The project took approximately ten days, and yielded about 10,000 board feet of timbers and dimensional lumber of (mostly) white oak and heart pine. The timbers were high quality, tight grained wood -- with as many as sixteen growth rings per inch -- and in sound condition. The barn was approaching one hundred years old.

The project saved valuable wood products which otherwise would have been destroyed during a road widening project (the barn was in the way). There were other benefits as well: An "old-timer", who had known the barn since he was a young boy, told us many stories about the old days and about how the barn was constructed. Community members seemed comforted that the old barn was not being destroyed, but transformed for a new lease on life. And at least one young boy roasted his first marshmallow over an open fire at the jobsite.





# Solar & Wind "Renewables"

## Solar Power Still Shines

*From Gaining Ground: A Journal To Support Your Actions For A Sustainable Planet, Vol.3, No. 1.*

Has solar energy gone the way of bell-bottoms and platform shoes? While it may not be as trendy as in the '70s, solar energy is actually more prevalent and cost-effective than ever before.

According to Christopher Flavin and Nicholas Lenssen in their book Power Surge: Guide to the Coming Energy Revolution, "By 1993 the average wholesale price of photovoltaics (PV) had dropped to between \$3.50 and \$4.75 a watt, or roughly 25 - 40 cents a kilowatt-hour, thanks both to higher efficiencies and more automated manufacturing processes. As costs fell, sales rose -- from 6.5 megawatts in 1980 to 29 megawatts in 1987, to 60 megawatts in 1993. ...With strong and consistent support in the decade ahead, solar electric technology may achieve the economic and commercial breakthrough that the industry has long waited for. Indeed, it is not unlikely that manufacturers could bring the cost of solar electricity down to 10 cents a kilowatt-hour by the year 2000, or even 4 cents by 2020."

The Union of Concerned Scientists reports in their pamphlet "Solar Power: Energy for Today and Tomorrow": "Passive-solar home-heating systems, solar water heaters, large-scale solar thermal-electric systems (which convert solar heat to electricity) and photovoltaic cells (which generate electricity directly) have all met with some commercial success in the past decade. Solar thermal-electric systems already produce electricity at a cost of about 10 - 12 cents per kilowatt-hour, and the cost is expected to drop to 6 - 8 cents per kilowatt-hour in the 1990's as larger and more efficient plants are built. By the end of the 1990's, a variety of solar thermal-electric designs, including parabolic-trough collectors, parabolic-dish collectors, and central receivers could be generating electricity at economic prices."

Finally, says Real Goods Company in their Solar Living Source Book, home solar systems are cost-effective today. "In the early years of the PV industry there was a nasty rumor circulating that said PV modules would never produce as much power over their lifetimes as it took to manufacture them. During the very early years of development, when PV cells were being used exclusively for spacecrafts, this was true. We often grumble that this rumor is perpetuated by the 'glow-in-the dark' nuke-loving types who have had a controlling grip on this country's energy policy for far too long. The truth is that PV modules pay back their manufacturing energy investment in 1.4 to 10 years time, depending on module type, installation climate, and other conditions. In fact, a preponderance of the

embodied energy is contained in the aluminum frame." For more information on home solar energy systems, contact the Real Goods Company at telephone number 800-762-7325. Real Goods is just one of many businesses in the US which provide solar energy technical information and hardware.

## NEWS from the American Wind Energy Association

Date Release: April 12, 1996

Contact: Jessica Maier, (202) 383-2500

**WORLDWIDE WIND CAPACITY SURPASSES 5,000 MW MARK, AND CONTINUED GROWTH IS EXPECTED --**  
New Installations are Expected to Total 18,500 MW by 2005.

Worldwide installed wind power capacity surged to over 5,000 MW during the first quarter of 1996, and this strong growth in international wind energy markets is expected to continue, according to official projections released today by the American Wind Energy Association, which referred to wind power as "the world's fastest growing electric power technology."

Total installed wind power capacity will reach over 18,500 MW by 2005, according to the projections, representing a market of over \$18 billion. Over 1,300 MW of new wind energy capacity was installed around the world in 1995 alone, a 35% percent increase in capacity over 1994. However, an imbalance in the world market exists: while many markets flourished in 1995, some slowed drastically-particularly the U.S.

Germany and India accounted for almost two-thirds of all new installations last year-nearly 900 MW. The U.S., on the other hand, lagged behind, adding only 41 MW of new wind capacity. In the last ten years, the U.S. share of total world wind energy capacity has dropped from about 90 percent to 30 percent. "The rest of the world is forging ahead with wind energy development and leaving the U.S. in the dust," said AWEA's executive director Randall Swisher. "The current and future competitiveness of the U.S. in global energy markets is at risk."

Stagnation in the U.S. market can be attributed to the pending restructuring of the electric utility industry, which has made utility power planners gun-shy of planning any new capacity additions. The outlook for U.S. growth is hopeful, though, if the industry is restructured in a way that is friendly to renewables. AWEA's projections predict that U.S. wind capacity additions will grow slowly until about 2000, and then increase over the next several years,

*continued on page 26*

# How a Solar Energy System Works

The simple photo-voltaic (PV) system contains a PV module, a battery, and a load (see Figure 1-1). The module transforms light energy to low voltage DC electricity that is stored in the battery until the electrical load is activated. The load uses the energy stored in the battery and the PV module then recharges the battery. The PV module could directly power the load. A 40 watt PV

panel could power a 40 watt light bulb, but only in the daytime, and only on a sunny day. The battery can power the load at a time when the PV module is not producing electricity.

On a sunny day, a 40 watt PV module produces 40 watt-hours per hour for six hours, or 240 watt hours per day. In this case the module could recharge the battery after the battery has been depleted 240 watt-hours per day. The possible load might be three, 40 watt bulbs run for two hours each.

A PV system does not run on a scheduled daily basis. The sun may shine for two days and produce 480 watt-hours, and then not produce any electricity on a third, cloudy day. The load can also be distributed unequally. No energy might be used for two days, then three days of charging might all be used on the third day. A PV system produces an average amount of electricity dependent on the average amount of sunshine. When a PV module produces an average of 100 watt hours per day for ten days, it stores 1000 watt-hours in the battery. In this same ten-day period, no more than 1000 watt-hours should be used to power the loads.

A remote site home system consists of a PV array,

a charge controller, a battery bank, a DC fuse box, an inverter, and an AC fuse box. (see Figure 1-2).

Functionally, the PV array and charge controller together are no more than a simple battery charger that uses sunlight as its energy source.

The PV array produces electricity when the sun shines. The charge controller regulates the flow from the

array to the battery bank. When the battery bank is low, the charge controller feeds all of the electricity from the array to the batteries. As the batteries approach a state of full charge, the

charge controller tapers the supply of electricity to prevent over-charging of the battery. At night it prevents a reverse flow of current from the batteries to the array. The battery bank stores the electricity as low voltage DC, normally at 12V or 24V. The electricity is distributed through a DC fuse box to power

low voltage DC appliances. The batteries supply electricity to a device called an inverter which changes the low voltage DC to 120V alternating current, and then sends it to an AC circuit-breaker box.

The charge controller and inverter are purchased in a

specific voltage and a specific size based on the proposed performance. The batteries and PV modules, however are modular. A PV array may consist of one PV module at 12V, or 10 modules producing ten times the current, but still at 12 volts. Likewise, a battery bank may be enlarged by increasing the number of batteries to allow more storage at the same 12v. A small system can be enlarged at any time by simply adding more modules and more batteries.

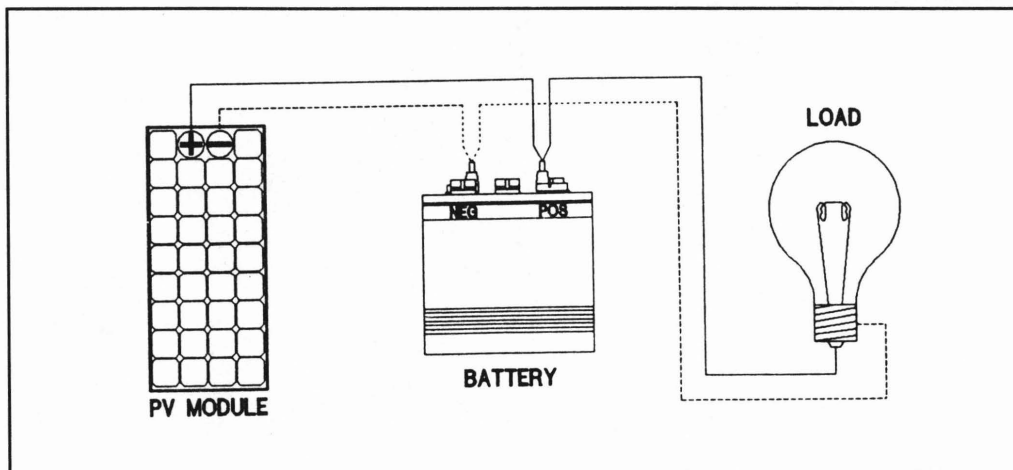


Figure 1-1

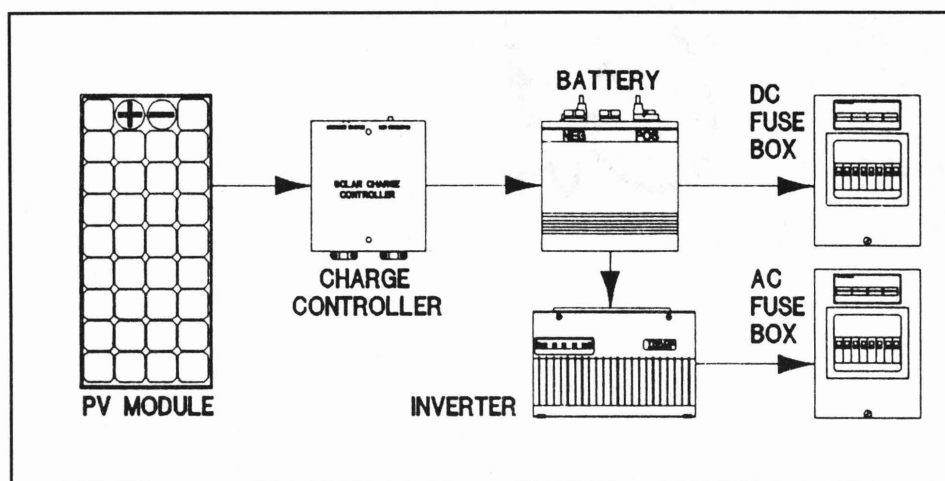
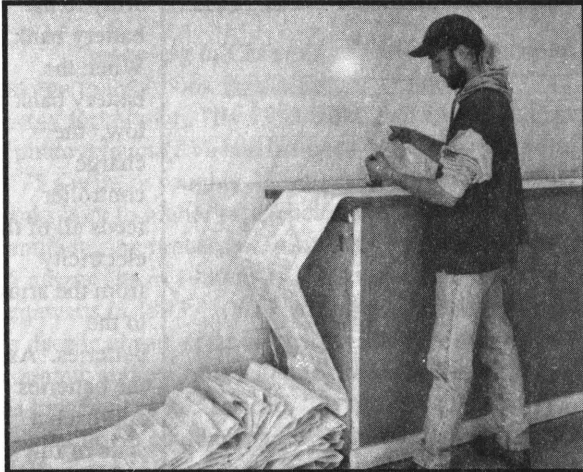


Figure 1-2



# Petition Delivery: Successful and Fun

Chattooga River Watershed Coalition members and friends collected over 20,000 signatures on a petition which listed six, common sense requests that would increase protection of our national forests in the Southern Appalachians. This petition was presented to Regional Forester Bob Joslin on November 26, 1996, just in time to be included in the public record of citizen's comments for the ongoing Forest Plan revisions in the Southern Region. The petition was carried from the Chattooga watershed -- by way of a 200 mile route over land and water -- to the Forest Service office in Atlanta, Georgia. Parts of this expedition and the unfurling of the petition are shown in the following images. *Thanks very much to all who helped to make the petition expedition and its presentation a success!* (photos - W.S. Lesan & Nicole Hayler)



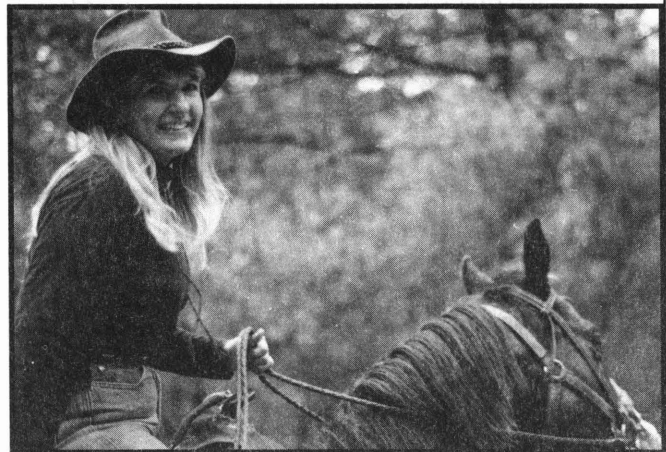
1) CRWC intern Kenny Duncan assembled all of the signatures on a long roll of paper; the petition was two football fields long.



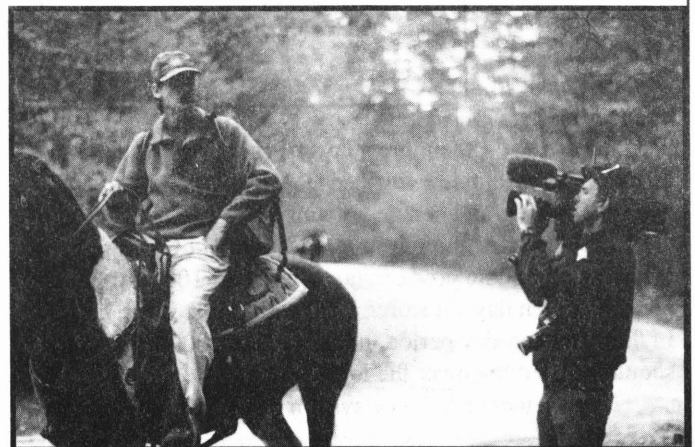
3) Lara Stewart and friends transported the petition via bicycles -- from the Ellicott Rock Wilderness Area to the horse trail at Burrell's Ford.



2) The petition expedition began atop the 4,000+ ft. summit of Whitesides Mountain, which sits at the head of the Chattooga watershed. Carrying the petition, Gordon Grant led the descent accompanied by Buzz Williams (below).



4) An entourage of horseback riders carried the petition onward to Earl's Ford. They were met along the way by news reporters (below).

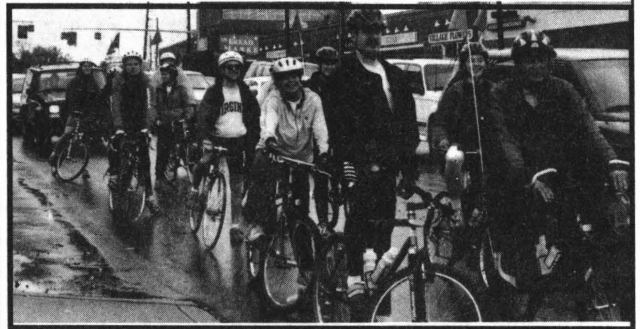




# Petition Delivery



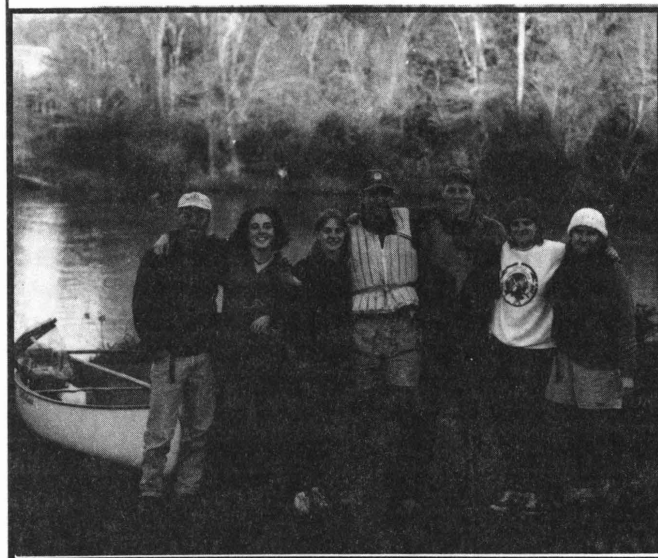
5) Chas Zartman, Kenny Duncan, Bruce Nelson and Buzz Williams paddled the petition down sections III & IV of the Chattooga, and across Lake Tugalo



7) Kathryn Kolb organized a bike rally of fourteen cyclists to ride with the petition through Atlanta, to the Forest Service office.



Over fifty citizens assembled on a rainy day in Atlanta, to unfurl and display the petition.  
Thank you everyone!



6) The petition was transported from the Tugalo dam by bicycles and logging truck to the Chattahoochee River/Lake Lanier watershed. On the final day of this 100-mile leg, the petition crew included (above l to r) Chris Kempton, Sonja Teltens, Candy, Buzz, Chris Todd, Amy Ray (of the "Indigo Girls") and Christy McGarry.



United States Department of Agriculture      Forest Service      Southern Region      1720 Peachtree Road NW  
Atlanta, Georgia 30367-9102

File Code: 1920  
Route To:

Date: December 12, 1996

Subject: Forest Plan Revisions

To: Forest Supervisors, Cherokee National Forest, Chattahoochee-Oconee National Forests, GW-Jefferson National Forests, National Forests in Alabama, Francis Marion and Sumter National Forests

On November 25, I received a petition containing around 20,000 signatures. The petition was aimed at this office and at each of the Southern Appalachian National Forests. It addresses "interim" management of the national forests "until new, scientifically sound Forest Plans are in place." I am forwarding a retyped version of the petition (without the signatures) for your use.

While the Coalition and Forest Watch are not commenting on scoping for revisions, per se, they have asked that their letter be acknowledged and included as input to the revisions on the forests' plans. I would like you to treat it as a response to the scoping process and that you integrate it into your analysis. The Coalition made six points that can be applied to your scoping of issues. Please deal with these comments as you would any others. If you have questions, please call Bob Wilhelm or Angela Coleman, here in the Regional Office.

/s/R. Gary Pierson (for)

ROBERT C. JOSLIN  
Regional Forester

Enclosure

cc: Chattooga River Watershed Coalition

# The Decline of the Butternut Tree

Chas Zartman

The Butternut is closely related to the Black Walnut (*Juglans nigra*) and is a member of the Walnut Family. This tree, which usually reaches the moderate height of forty to fifty feet, is widespread across eastern North America, and is frequently found along streams and moist, rich draws of the Southern mountains. Although not as productive as the Sugar Maple, Butternuts can be tapped for syrup and its wood was commonly used for indoor trim and furniture making. A compound called "juglone" isolated from this species has been reported in modern literature as having both antiseptic and antitumor activities. This may explain why Native Americans made teas from the bark to reduce wound bleeding and facilitate the healing process. Parts of this aromatic tree were also put to use by early Mountaineers. Both the sticky husk (it will stain your fingers!) and the white inner bark were used to dye garments made of anything from animal hides to woolen homespun. In fact, during the Civil War, backwoods Confederate troops were identified by their yellowish-orange homespun uniforms dyed with Butternut bark. These soldiers were affectionately referred to as "Butternuts."

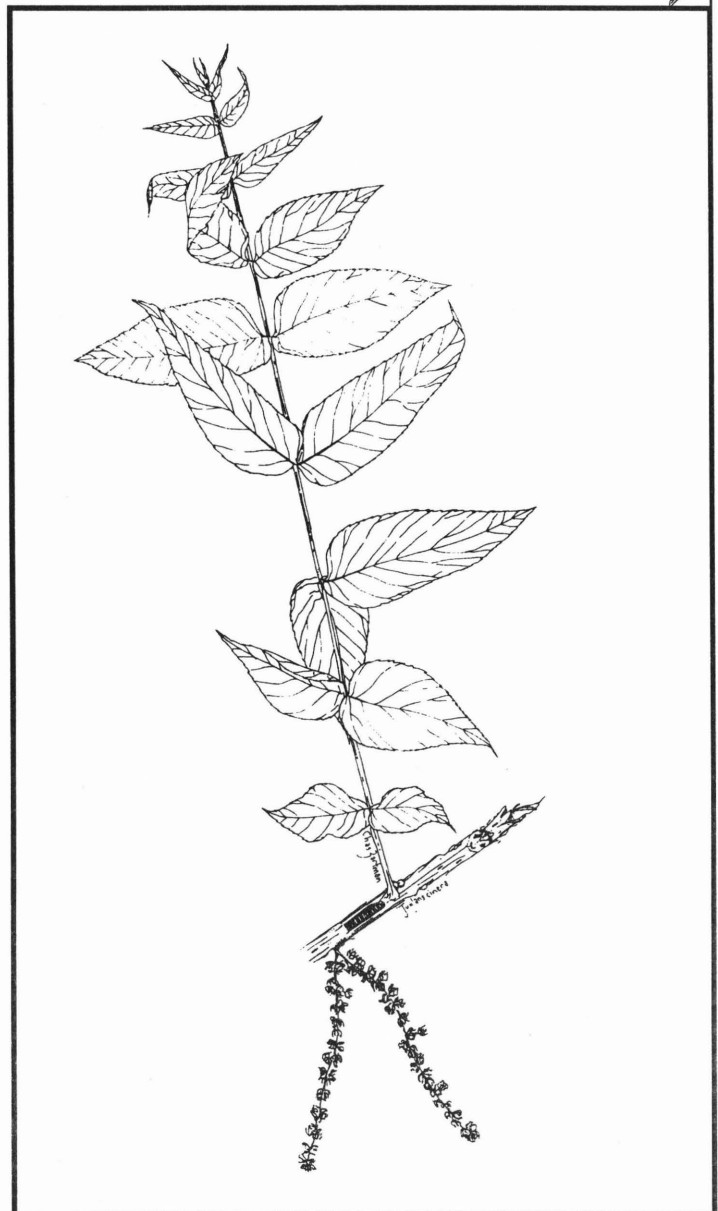
Unfortunately, Butternut populations in many eastern states have declined as much as 80% because of attacks from a non-native fungus named *Sirococcus clavigignenti-juglandacerum*. The decline in Butternuts across its whole range has reached such proportions that the U.S. Fish and Wildlife Service has declared this tree a "species of Federal concern." In an attempt to save the Butternut, the University of Tennessee in Knoxville has initiated a program for locating, evaluating, and mapping surviving trees. One of the purposes of the project is to gather genetic material from those hardier Butternuts that continue to reproduce. Through genetic engineering and breeding programs, these researchers hope to develop a strain of Butternut trees more resistant to this exotic fungus. These resistant trees can then be replanted throughout the extent of its range.

One of the biggest stumbling blocks in the project is locating healthy Butternuts. These researchers are interested in information on surviving Butternut trees, and if you happen to know of any in or around the Chattooga River Basin, please contact us at the Coalition office or contact Jim McConnell (3699 Wentworth Lane, Lilburn, GA, 30247-2256). Please be sure to send a simple sketch or map of its location along with your name, address and telephone number. Your help will be greatly appreciated.

Because these trees are inherently rare, look very similar to a Black Walnut, and tend to grow singularly in the mountains, they are hard to find and equally hard to identify. A great place to see live Butternuts on the Chattooga River is along the West Fork and at its confluence with Section II. Butternuts are frequent in the

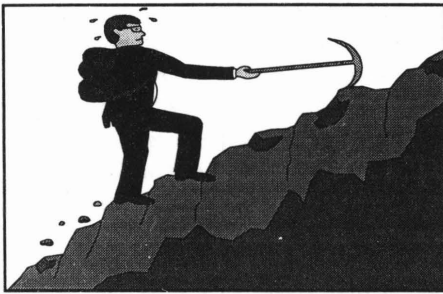
bottomlands along the river here. The accompanying sketch, along with these following visual clues should help you successfully discriminate the Butternut from the Black Walnut:

- (1) Butternuts tend to fruit in clusters, and the fruit is distinctly oblong and egg-shaped.
- (2) The ridges of Butternut bark is whitish and gives the trees a streaked appearance.
- (3) Butternut's terminal buds are more slender and chalky looking than the Black Walnut's.
- (4) Both walnut species have leaf scars which, when one stretches their imagination, look like a monkey's face. The Butternut's monkey face is accompanied by a hairy mono-brow.



*The Butternut (Juglans cinera)*

# Upcoming CRWC Workshops



## SPRING FIELD TRIPS SCHEDULE

**Chas Zartman, CRWC Biologist**

With the expectation that the upcoming months will provide us plenty of opportunity (and excuses) to experience the Chattooga watershed's natural world first hand, the CRWC is printing an advance schedule for field trips. One of our goals is to include a range of activities with varying levels of difficulty. The explosion of life in early spring time should provide a perfect stage for outdoor adventures. If you have any interest in these walks, cut out this schedule and hang it up so you won't miss the trip of your choice! *Trip dates and themes are subject to change depending on weather conditions, so be sure to give the Coalition office a call the week before a scheduled trip.*

### **Saturday March 15, Old Hemlock Cove, Ellicott Rock Wilderness Area**

As described by David Dumond in 1969, a legendary stand of virgin Eastern hemlocks survives along the upper Chattooga River in a northeast-facing cove on the Georgia side of the Ellicott Rock Wilderness. The outing will consist of accessing this area via Ammons Branch Trail. This all day excursion potentially could be quite difficult, and will require hearty individuals who are willing to concede to the tangle of Rhododendron thickets by perhaps crawling on hands and knees. *Meet at 7:00 a.m. in front of the CRWC office on E. Savannah Street in Clayton, GA. Approximate distance: 8 miles.*

### **Saturday April 12, Spring Flowers of Warwoman Dell**

Explore the spring flora of Warwoman Dell with Marie Mellinger, Rabun County's own resident expert botanist and naturalist. From the blossoming *Trillium* to the scurry of gravid female Seepage salamanders, Warwoman Dell in mid-April is an ideal setting to experience the myriad examples of rebirth in the natural world. This field trip will consist of exploring along the loop trail through the Dell. *Meet at 8:00 a.m. in the Warwomen Dell parking lot. Approximate distance: 1 mile.*

### **Saturday April 26, Tugalo River Bird Watching Trip**

The short stretch of the Tugalo River between the base of Yonah Dam and the backwaters of Lake Hartwell consists of a broad floodplain interspersed with pools, alder slicks and young bottomland forests: ideal resting grounds for a wide cross-section of migrating songbirds. Join Peter Julius, graduate student in biology at Western Carolina University who is presently studying bird communities in the Ellicott Rock Wilderness, on a canoe excursion to witness the early morning activity of warblers and waterfowl along the Tugalo River. Participants should bring their own canoe and binoculars. *Meet at the Walker Boat Ramp, north of Prather Bridge Road on the Georgia side of the River, at 6:00 a.m.*

### **Saturday May 17, Wildflower Walk to Rabun Bald**

The Beegum Gap Trail to Rabun Bald marks the watershed boundaries between the Chattooga and the Little Tennessee River Basins, and the high mountain coves paralleling the trail support an exquisite display of wildflowers and songbirds. For those who miss the early spring bloom in the lower watershed, you can catch it lingering along the Rabun Bald trail with Marie Mellinger. Although the objective of this hike is to reach Rabun Bald's summit, we may become easily distracted in the Umbrella Leaf gardens along the way. For enthusiasts of mosses and lichens, this trip is a must as Rabun Bald is the only known Georgia station for the Federally Endangered Rock Gnome Lichen, and is also the site of a newly discovered moss species. *Meet at the CRWC office on Savannah Street in Clayton, GA at 7:00 a.m. Approximate distance: maximum 5 miles.*

### **Saturday June 14, Aquatic Ecology workshop on Tuckaluge Creek**

Tuckaluge Creek flows through a small but steep gorge on its way to Warwoman Creek and the Chattooga River. Chris Kempton, a researcher in Fisheries at Clemson University, will introduce participants to catching (and identifying) fish, salamanders and insect groups commonly found in streams of the Chattooga. Be prepared to get wet. *Meet at the cement bridge over Tuckaluge Creek, on Tuckaluge Creek Road (north of Warwoman Road) at 9:00 a.m.*





## Solar & Wind "Renewables" *continued*

*continued from page 20*

totaling about 2,700 MW of new capacity by 2005.

"Utility restructuring has caused a short-term mentality among many power planners, making them hesitant of any new capacity additions," said Swisher. "This short-sighted outlook could unfairly disadvantage renewables when the industry is restructured. If the U.S. wants to retain its leadership role in world energy markets, strong policy encouraging renewables must exist." Some of the policies AWEA proposes to ensure U.S. competitiveness are:

- 1) As part of restructuring, implementation of a renewables portfolio standard, which would rely on market mechanisms to ensure that a minimum level of renewables is developed.
- 2) Sufficient federal research and development funding to ensure that wind technology continues on the course that has reduced its costs over 80% in the last 15 years.
- 3) Continuation of current production tax credits to help wind achieve tax equity with conventional fuel sources.
- 4) Federal international aid and trade programs to support U.S. industry in the development of renewable energy projects worldwide.

AWEA's projections are based on publicly and privately held information on existing installations and planned capacity additions worldwide. The projections assume no significant political shifts that would cause an increase or decrease in national support for wind energy. They also assume only a moderate shift in fossil fuel prices and efficiency gains from combustion technologies, as well as moderate improvements in the cost of wind-generated power.

AWEA, formed in 1974, is the national trade association of the U.S. wind energy industry. AWEA's membership of over 800 includes turbine and component manufacturers, project developers, utilities, academicians, and interested individuals from 49 states.

*A detailed description of the Renewables Portfolio Standard is available from AWEA on the World Wide Web at <http://www.igc.apc.>, or [g/awea/aweapol.html](http://g/awea/aweapol.html).*



### ERRATUM

*Chattooga Quarterly Fall 1996 issue*

**\*\*PAGE 4, second column, second paragraph, second sentence, should read (corrections are in bold):**

**"One is the gypsy moth** which is now moving south through Virginia..

**\*\*PAGE 4, second column, very last sentence, continued on PAGE 26, should read:**

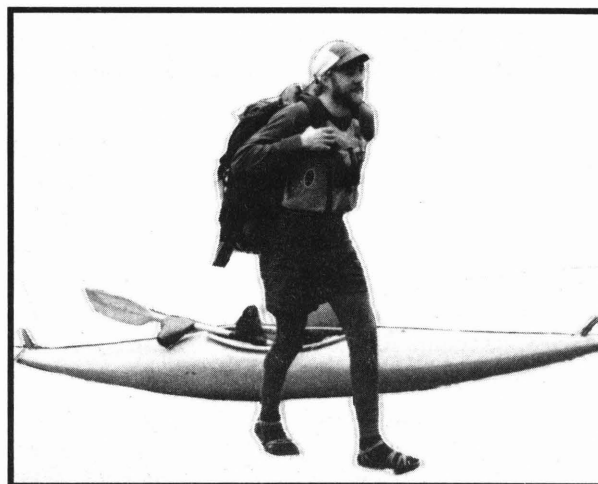
**The disease known as oak wilt occurs along prairie edges in Wisconsin, Minnesota, and Texas. It is not**

**present within 900 miles of the Chattooga River watershed. And oak decline is a perfectly natural condition, recorded periodically for over a century, recurring after periods of drought. Oak decline affects older trees of only two species, scarlet oak and black oak, and is limited to dry sites with poor soils. Oaks as a group are not in danger from the health standpoint. The industry "cure" for oak decline is clearcutting. (Although the Western North Carolina Alliance won the battle against "clearcutting" per se in the Nantahala-Pisgah National Forest, other forms of excessive logging and roading are still common on national forest timber operations. We still have much work to do on this score.)**

**The second category of serious forest health problems in the Chattooga River watershed is the forest fragmentation issue, which affects entire ecosystems. All forest interior plants and animals, from orchids to yellow birch trees, from bears to warblers, are rapidly losing their habitats throughout our mountains."**

### ACKNOWLEDGMENT

The staff of the Chattooga River Watershed Coalition wishes to acknowledge and thank **Kenny Duncan** for his hard work, enthusiasm and ceaseless good humor, in the course of his internship with the Coalition. Thank you, good luck and "clean runs", always!



*Kenny, carrying the petition  
on day two of the expedition*

## Chattooga River Watershed Coalition

### Staff:

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*Buzz Williams*

*Development Director*  
*Nicole Hayler*

*Administration*  
*Cindy Berrier*

*Biologist*  
*Chas Zartman*

*Program*  
*CRWC Staff*

***We are a 501C3 non-profit  
organization incorporated in  
Georgia.***

### ***Board of Directors:***

*Friends of the Mountains*  
*GA Forest Watch*  
*Western NC Alliance*  
*SC Forest Watch*  
*Sierra Club*  
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*Association of Forest Service*  
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*Production and Layout,  
CRWC Staff*

*Printing, J&M Printing*

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*Atlanta Whitewater Club*  
*Georgia Canoeing Association*  
*Higgins Hardwood Gear*  
*A.F. Clewell, Inc.*  
*Atlanta Audubon Society*  
*National Wildlife Federation*  
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## **Membership**

Renewal

☐

Name \_\_\_\_\_

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Phone number \_\_\_\_\_

Individual: \$7.00 ☐

Group: \$14.00 ☐

Donation: ☐

Sustaining: \$45.00 ☐

***Join the Coalition and help protect the Chattooga Watershed!***  
Your contribution is greatly appreciated. It will be used to support the Coalition's work, and guarantee you delivery of our quarterly newsletter. We're a non-profit organization, and all contributions are tax-deductible.

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@igc.apc.org Email

## Our 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."

## Our Work Made Possible By:

CRWC Members and Volunteers

Turner Foundation, Inc.

The Moriah Fund

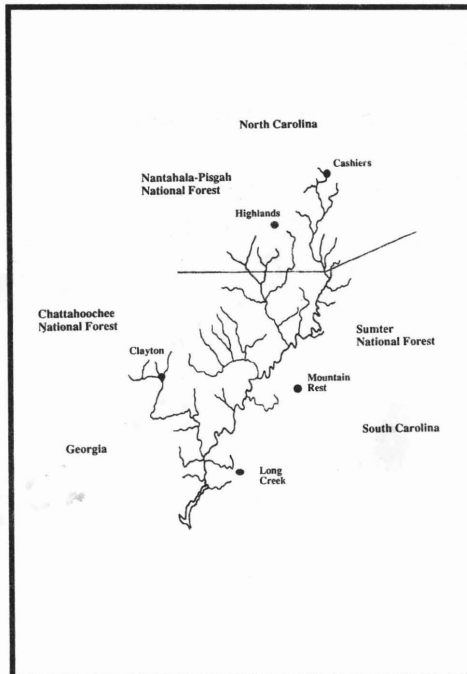
Lyndhurst Foundation

Patagonia, Inc.

Town Creek Foundation

Merck Family Fund

Frances Allison Close



## Our 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

Non-Profit Organization  
Bulk Rate Permit # 33  
Clayton, GA



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