



The Chairman's Corner

Rep. Scott E. Hutchinson, Chairman

Forests represent one of Pennsylvania's most valuable resources. The Joint Conservation Committee, through its legislatively established Forestry Legislative Task Force, has long taken an active role in the future of forests and forestry. That's one reason this issue of the *Environmental Synopsis* is focusing on these issues.

On the task force's agenda in this legislative session are issues such as best forest management practices, the impact of government policies and programs on the timber and forest products industry, and tax policies and valuations of forestlands.

Penn State University's College of Agricultural Sciences, which includes the School of Forest Resources, is a recognized leader in forestry education and research, and has recently taken action to improve education about forests and forestry and to strengthen management of Pennsylvania's forestlands. That action comes pursuant to the college's Strategic Plan, which calls for "improving forest management and use of wood products."

Penn State recently announced the appointment of Dr. Harry V. Wiant, Jr. to fill the endowed Joseph E. Ibberson Chair in Forest Resources Management in the School of Forest Resources. The stated purpose of the chair is to "educate students and to continue leadership in the professional management of private forest resources."

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Craig D. Brooks, Director

Trees that fly? Well...sort of....

A project at Ricketts Glen State Park partnered Pennsylvania's Bureau of Forestry with the Bureau of State Parks to harvest salvage timber in the park's 13,000 acres located in Sullivan and Luzerne counties. As a result of damaging winds from Hurricane Floyd in September of 1999, downed timber was scattered across Ricketts Glen. Under normal circumstances, forest management within the Bureau of State Parks is based on construction projects on park property, wildlife habitat improvement and remediation of storm damage. However, the large volume of downed timber created a problem for park officials.

The Legislative Forestry Task Force recently looked into the practice of timber harvesting in state parks and discovered that bureau officials came up with a unique solution for timber removal in this case - helicopters. Due to concerns over environmental damage that construction of skid and haul roads might cause and knowing the value of the downed timber, it was decided that its removal would best be accomplished by transporting it out by chopper. The Department of Conservation and Natural Resources (DCNR) contracted with Carson Services, a helicopter logging division located in Jacksonville, Oregon, to cut, fly and deck a minimum of 3.5 million board feet of downed timber between October 15, 2000 and May 15, 2001. This was enough timber to fill about 800 log trucks with valuable black cherry, mixed oak and red maple that would otherwise be left on the forest floor.

The first helicopter began working on October 30, 2000 carrying thousands of pounds of logs swinging from a secure hook line. It was a monumental task - removing thousands of logs quickly and

efficiently within six months. Although ground crews prepared the area by cutting felled timber, treetops and limbs were left to add biomass and nutrients to the forest floor and help protect new seedling growth from foraging deer.

The last helicopter flew out on April 14th, 2001. The result was almost 8 million board feet of timber removed and millions of dollars in timber sales that would have been lost. DCNR received \$4 million in sales from the salvaged timber. The project not only provided a financial benefit for the park, but it also improved aesthetics, reduced the risk of wildfires and created a safer recreational environment for visitors. We tip our hats to DCNR...job well done!

See Committee Chronicles on page seven for more photos from this remarkable timbering operation.





Research Briefs

Each month, the committee's staff researches and prepares a number of "briefs" on several topics relevant to the Joint Conservation Committee's mission. Very often, these briefs include references to reports and further research on the topics so that readers may pursue issues on their own.

Report Examines the Health of Southern Forests

— Tony M. Guerrieri, Research Analyst

The South – that 13-state area from Kentucky to the Gulf Coast and stretching from Virginia to Texas – is one of the fastest growing regions of the country, experiencing increased population and development. The South also has a prominent and economically important forest base that supplies much of the U.S. with wood products.

The U.S. Forest Service has released a study showing that southern forests are growing at a healthy rate and will be sustainable for many more decades. The report, known as the *Southern Forest Resource Assessment* (SFRA), provides a snapshot of Southern forests. It examines the major forces of change – from timber markets to socio-economic factors, insects and disease, climate changes and other potential threats.

The report concludes that urban development and sprawl – not commercial timber harvesting – pose the greatest and permanent threat to forest ecosystems. The rate of land developed for urban uses in the South increased from about 667,000 acres per year between 1982 and 1992 to about 1.1 million acres per year between 1992 and 1997. Urban sprawl, according to the report, could reduce forests in the South by 12 million acres by 2020, affecting the environment and outdoor recreation. An additional 19 million acres are forecast to be developed between 2020 and 2040.

The U.S. Forest Service estimates that the Southern forest resource covers more than 214 million acres. Timberland is held by a diverse group of owners in the South. Currently, about 11 percent (21 million acres) is controlled by various government agencies. More than five million

private owners control the remaining 89 percent (193 million acres) of timberland. The forest industry owns 22 percent of the private land, 21 percent is held by farmers, 12 percent by other corporations, and 45 percent by other individuals.

The South now produces nearly 60 percent of the nation's wood output since the 1990's. Forest regeneration and growth have expanded southern timber inventories by 73 percent since the 1950's, and strong timber markets have encouraged landowners to keep land forested. As a result of these and other factors, the South's timber production more than doubled between 1953 and 1997. Its share of U.S. production rose from 41 to 58 percent and its share of the world's production from 6.3 to 15.8 percent.

Timber market models forecast that timber production in the United States will increase by about one-third between 1995 and 2040. Nearly all the growth will come from the South where production is forecast to increase 56 percent for softwoods and 47 percent for hardwoods.

The report suggests that while softwood inventories will increase steadily until at least 2040, the rate of hardwood removals is forecast to gradually approach the rate of growth between 2020 and 2025, peak in 2025 and then decline between 2025 and 2040.

While the total area of timberland in the South has remained relatively stable, forest types have changed, with pine forests experiencing the most change. The area of natural pine has declined from about 72 million acres in 1953 to about 34 million acres in 1999. Planted pine has increased from about two million acres in 1953 to more than 32 million acres in 1999. Pine plantation acreage is forecast to jump 67 percent to 54 million acres by 2040.

Across the South, wood products industries have provided large shares of employment and

J income. In 1997, timber harvests led to more than 700,000 jobs in the wood products sector and yielded more than \$118 billion in total industry output. The total impacts of activities in the wood products sector were about 2.2 million jobs and \$251 billion in total industry output in 1997, translating to 5.5 percent of jobs and 7.5 percent of total industry output in the South. The U.S. wood products industry continues to concentrate in the South, which had 39.3 percent of U.S. wood product jobs in 1997.

Recreation and tourism, including that derived from forested settings, is also a source of employment and income in the South. In 1997, outdoor recreation-based tourism contributed between 0.64 and 2.88 percent of jobs and between 0.51 and 2.51 percent of the South's gross regional product. Public lands represented 56 percent of this contribution.

Substantial alterations to forested communities have impacted several terrestrial species in the South. Of the 1,208 vertebrate species known to exist in the South, 132 are considered to be of conservation concern, and 28 are classified as critically imperiled. The South, the center of amphibian biodiversity in the nation, has 54 amphibians classified as species of concern, and 19 as critically imperiled.

For more information and a copy of the full report please go to: www.srs.fs.fed.us/sustain/report/index.htm. For a summary of the report try: www.srs.fs.fed.us/sustain/report/summary/summary.pdf.

Buffer Programs Offer Benefits to Landowners and Environment

— Jason H. Gross, Research Analyst

The Soil and Water Conservation Society recently put out a report entitled “*Realizing the Promise of Conservation Buffer Technology*.” The report, based on a 2001 conservation workshop, is directed at policymakers, conservationists, and high use landowners such as farmers and ranchers. The goal of the report is to increase awareness, acceptance and use of buffers among such individuals in order to maximize both the environmental benefits and economic usefulness of the lands under their control.

A conservation buffer is a living filter that features a permanent vegetative cover of grass, shrubs and/or trees. The buffers are located at the edges of crop fields, industrial areas or other locations where natural processing of runoff would be useful. Areas that benefit most from buffers are areas of flat unvegetated ground and areas surrounding impermeable ground cover. Through its natural filtering system, a buffer protects aquatic environments such as streams or lakes, manmade structures, and watersheds. Buffers also reduce harmful runoff in agriculture and timber harvest areas.

The chief vehicle and direct method for installing buffers on land is a government program called the buffer initiative, which includes programs at the United States Department of Agriculture (USDA), U.S. Environmental Protection Agency (EPA), and Bureau of Land Management. The buffer initiative successfully meshes the two seemingly opposite goals mentioned above -- good economic use of the land and positive environmental return. It assists landowners in addressing conservation problems on farmland and grazing land, while making the same landowners more aware of conservation assistance programs and the technical and financial assistance that these programs can offer.

USDA is tasked with employing conservation buffer installation and awareness efforts. The agency seeks to combine multiple functions and maintain a high degree of landowner satisfaction with buffer technology. To this end USDA employs the following principles:

- be flexible in designing and installing buffers so that the operational needs of farmers and landowners can be satisfied;
- use buffers in conjunction with other conservation systems such as tillage and nutrient management so that the buffers are components of a whole system; and
- encourage landowners to install buffers in such a way that multiple environmental and conservation goals are met at one time.

To maximize ecological benefit, the federal government has enacted a program where landowners can continuously sign up acres of their land for buffer installation. When the landowner signs up, agencies determine if and where buffers should be installed. Once all the eligibility requirements are met, the landowner receives the maximum rental rate per acre that is normally

5 paid under the conservation program for comparable soils in a locale. Grazing land, marginal pasture, and farmland are all potentially eligible for the program.

The workshop group has included in the report a series of recommendations, some with potential forestry impacts. One of the more interesting is a call to investigate enhancing the establishment and growth of seedlings in buffer regions, which could add to forestry growth. Another related recommendation is to produce marketable commodities in buffers, such as trees for logging and the hardwood industry.

For more information write the Soil and Water Conservation Society, 7515 Northeast Ankeny Road, Ankeny Iowa 50021 or call 515-289-2331.

Report Encourages Community Role in Forest Conservation

— Tony M. Guerrieri, Research Analyst

Allowing local people to legally exploit a reasonable portion of forest resources could do more to conserve forests than additional government regulations, according to a report by several leading forestry organizations.

The report, “*Making Markets Work for Forest Communities*”, issued by the Center for International Forestry Research in Indonesia and two Washington-based organizations, Future Harvest and Forest Trends, finds that improving the lives of individuals residing in and around forests is vital to forest conservation.

Eight percent of the world’s forests are in legally protected areas, known as biodiversity reserves. The report focuses on how to best manage the vast areas of forests outside of these reserves.

The report states that around the developing world a transition is underway with regard to ownership and control of developing countries’ forests. Rural communities and indigenous people are successfully asserting control over forestland, now owning or officially administering at least 25 percent of the developing world’s forests – nearly 300 million hectares (741 million acres). That trend is expected to accelerate over the next several years.

However, according to the report, despite their holdings, local communities often do not have authority to fully use and capitalize on their forest

assets. Little has been done, the report states, to help local people use their forest assets in a sustainable manner and to benefit from – and cope with the pressures of – growing demand for forest products.

The report notes that forest communities do have clear competitive advantages in some markets. For instance, local communities can easily monitor and protect their forests, while corporations must account for the cost of hired management and labor. In addition, communities are often eager to adopt management systems that are sustainable during boom-and-bust cycles for forest products.

The report notes that forest communities can better tackle these tasks by forming local producer organizations and gaining business expertise. For example, 256 indigenous communities in poor mountainous areas of southern Mexico joined forces in 1997 to expand and improve their forest enterprises. Through the project, these communities have been able to access outside expertise and support to create more than 1,300 new jobs and increase annual wood production by roughly 60 percent to 660,000 cubic meters. The communities have also improved forest management and established 13,500 hectares of permanent old-growth reserves.

The report argues that improving the lives of individuals living in and around forests is the key to conservation. It points to several ways in which local people can get access to the resources of the forests where they live. Specific suggestions include:

- marketing of wood by forest communities to meet the rapidly growing demand for wood in developing countries;

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- partnering investors with local growers to reforest land unsuitable for farming; and
- targeting products to environmentally and socially aware niche markets.

To take advantage of these opportunities, the report states that concerted action is required on two fronts: developing commercially viable small-scale forestry operations; and removing many of the regulatory and market barriers that discriminate against small producers.

The report cites 57 countries with at least one existing partnership between forest industry and local communities. These partnerships promote small-scale forestry operations and offer considerable benefits for all parties. Industrial firms are provided with competitive prices for wood fiber and non-wood products, protection of desirable forest assets, expertise on local forests, and opportunities for socially responsible marketing. Local producers receive benefits such as high-quality planting materials, technical assistance, quality control, investment resources, and marketing expertise.

For further information and a copy of the report, you can go to the following web address: http://www.futureharvest.org/pdf/Final_Report.pdf.

Voluntary Green House Gas Reduction Program

— Jason H. Gross, Research Analyst

The Energy Information Administration recently (February 2002) published the compiled results of its 1999 study “*Voluntary Reporting of Greenhouse Gases*”. The study is used as a registry by federal government programs to determine the extent of greenhouse gas emissions. The Energy Information Administration is an independent statistical agency housed within the Department of Energy.

Currently greenhouse gas emission reporting is done only through the voluntary program. The report records the results of measures to reduce, avoid, or sequester greenhouse gases so that the gases do not reach the ozone layer where they do the most damage. According to the report, growing concern over greenhouse gases has increased interest in the voluntary reporting system. The report’s database provides examples of the types of actions that organizations take in reducing greenhouse gas emissions, and provides a training

ground for determining the best measures for measuring and reporting greenhouse gas emissions.

The government has created a credit program to provide incentives for voluntary greenhouse gas emission reduction. The program offers regulatory credit to companies who voluntarily decide to present early reporting data. The credit comes in the form of a “carbon allowance” against a future cap on greenhouse gas emissions. Organizations that take steps to reduce their emissions now, voluntarily, will receive the carbon allowance credit toward future emissions. The exact method of implementing a credit program is currently being debated among policymakers and stakeholders.

One major problem for energy producers is efficiency loss because it is not possible to convert all of the thermal energy produced by a power plant into electrical energy. Most U.S. power plants operate at about 33 percent efficiency, meaning that two-thirds of the energy produced is lost. If efficiency can be increased, overall loss can be lessened, in turn reducing gas emissions.

The report identifies methane as one of the major and most common greenhouse depleting gases. Landfills are the largest single anthropogenic (man-made) source of methane in the United States. As waste decomposes in a landfill it produces a biogas that is approximately 50 percent carbon dioxide and 50 percent methane.

According to the report, landfill methane is potentially a useful source of energy. As a byproduct, methane produces power levels roughly equivalent to natural gas. The problem with methane as a continuous power source is that it must first be purified and stored before it can be sent to a pipeline. Under such a scenario, excess electric power could then be resold to the grid. Further efforts are being made to find a method of using methane in medium Btu boilers. Doing so would displace the use of fossil fuels.

The report is available on the web at: www.eia.doe.gov/oiaf/1605/vrrpt/index.html. The specific reports that are submitted to the program are available on CD-ROM by contacting the Voluntary Reporting of Greenhouse Gases Program Communications Center at 1-800-803-5182, or they may be downloaded via the web at <http://www.eia.doe.gov/oiaf/1605/database.html>.

On The Horizon...

a look at upcoming committee events

➤ **Monday, June 10, 12 noon, Hearing Room 1, North Office Bldg., Capitol Complex – Environmental Issues Forum.** Staff members from the Pennsylvania Department of Conservation and Natural Resources’ (DCNR) Bureau of Recreation and Conservation will join with William “Bill” Forrey and other principals from the consulting firm the RBA Group, to discuss the progress of the state’s Greenways Plan and the establishment of the plan’s information clearinghouse. DCNR and the RBA Group have been working together to implement the PA Greenways Partnership Commission’s plan. **Environmental Issues Forums are open to the public. Please call the committee office at 717-787-7570 if you plan to attend.**

➤ **Thursday, July 11, 10 a.m., Room 107, Penn Stater Conference Center Hotel, State College – Legislative Forestry Task Force Meeting.** The task force will discuss taxation of forestland in Pennsylvania. *Individuals planning to attend should contact Lynn in the committee office in advance at 717-787-7570.*

➤ **August 20 - 21, Clarion Hotel and Convention Center, Carlisle – Infiltration and Inflow Control Symposium.** The PA Department of Environmental Protection (DEP) and the Joint Conservation Committee are cosponsoring this symposium focusing on infiltration of groundwater into sanitary sewers. It will feature presentations on practical solutions, technology exhibitors and many of the recommendations of the Joint Conservation Committee’s Infiltration Task Force report.

Committee Chronicles...

a review of some memorable committee events

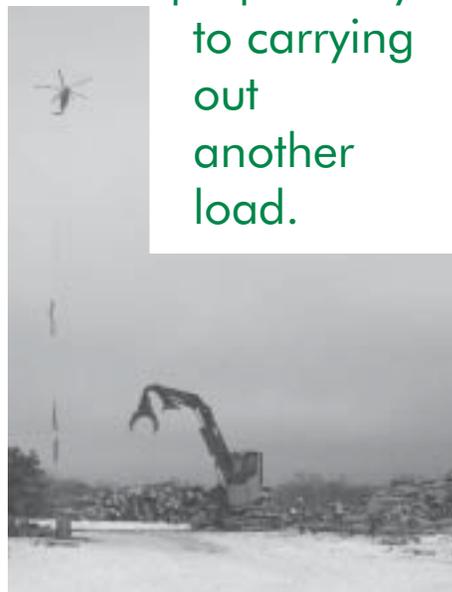
Some further shots of the Ricketts Glen project described in Notes from the Director on page two.

A logger prepares this cherry for airlifting.



Timber cut to size awaits a ride out.

The chopper hovers preparatory to carrying out another load.



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Dr. Wiant has impeccable credentials for what could be considered a crucial position in regard to development of management strategies and skilled managers for the future of Pennsylvania's forests.

He joins the Penn State instructional team after 24 years as a professor of forestry at West Virginia University, where he also served as assistant director of research. A former president of the Society of American Foresters, Dr. Wiant also served professorial stints at Stephen F. Austin State University and Humboldt State College. His devotion to forestry goes all the way back to 1957 when he was a junior forester with the USDA Forest Service.

Dr. Wiant holds a Ph.D. in Forest Ecology from Yale University, a Masters of Forestry in Silviculture from the University of Georgia and a bachelor's degree in Forest Management from West Virginia. Among projects of special note accomplished by Dr. Wiant was the inventory of 2800 acres of old growth redwood trees, probably the most intensive inventory ever conducted on such a large area and involving timber of such high value.

The advent of the Ibberson Chair is an interesting story in itself. Joseph E. Ibberson is a former employee of the Pennsylvania Bureau of Forestry. He created and was the chief of the Division of Forest Advisory Services with the bureau and is credited with developing the state's first forest management plans for 2 million acres of state forest, and starting the Service Forester program. A graduate of Yale and of the PSU School of Forest Resources, he retired in 1977. In 1999, he received the "Outstanding Management of Resources Award."

Perhaps most to the point, he dedicated 350 acres of land he owned to the Pennsylvania Department of Conservation and Natural Resources (DCNR) for a conservation area and organized the

approximate \$1.5 million gift to PSU's School of Forest Resources to establish the chair which bears his name.

A committee of faculty, professional foresters from private, public and industry sectors, and private landowners and citizens will advise the chair.

One of Dr. Wiant's priorities will be to develop a course on consulting forestry, which will include such aspects as working with landowners and setting up forestry-related businesses. He will also devote time to improving forest measurement techniques and work closely with undergraduates pursuing forestry science majors to help build leadership in the forestry profession.

Dr. Wiant counts among his beliefs the premise that "private forests are the key" when it comes to efficient and effective forest management and use of forest resources. He stresses the need for healthy and productive forests. Noting Pennsylvania's renowned stands of hardwoods, he espouses that if we do not manage this resource and apply professional standards, this nation would be restricted to importing foreign wood products. Some good food for thought.

Perhaps not everyone sings the same tune as Dr. Wiant on forestry, but he and some of his associates have presented country and bluegrass music at forestry conventions for many years. They've put together a CD, which *Bluegrass Unlimited* reviewed in 2001, noting instrumental prowess which was "impeccable" and observing, "...if these pickers are as diligent in their regular jobs, then our nation's forests are certainly in good hands."

Former forester and Pennsylvania Governor Gifford Pinchot, who was among the first to recognize the need for forest management, was among Dr. Wiant's inspirations. With that caliber of professional skill and expertise as a guide, we can be hopeful of praises being sung about new developments in Pennsylvania forestry.

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