



THE HIGHLANDS VOICE

WVU LIB
AUG 28 1987
SERIALS DEPT.

APPAL. RM.

NON-PROFIT ORG.
U.S. POSTAGE
PAID
PERMIT NO. 2831
CHAS. WV 25301

Periodicals, Main Library
West Virginia University
P.O. Box 6069
Morgantown WV 26506

Published monthly by the W. Va. Highlands Conservancy

VOL. 20, NO. 8, AUGUST 1987

Summer Board Meeting - Highlights

The West Virginia Highlands Conservancy Board of Directors met on the front porch of Dave and Linda Elkin-ton's farmhouse near Fairmont on July 26. The pastoral setting did not lessen the intensity of any debate, and the hum of discussion effectively covered all other sounds except the song of one very persistent field sparrow. Toward the end of the meeting, a welcome, cooling rain nudged members away from the edge of the porch and soothed the hotter issues.

Among the topics debated on the front porch was the compromise position on acid rain proposed by the Center for Clean Air Policy. The Center's dialogue process has identified a broad consensus for a control program which recommends early SO₂ reductions, with flexibility for states in meeting those targets, and emphasizes clean coal and other mechanisms to ease the impact on the West Virginia coalfields.

John Purbaugh, who participated in the activities of the Center for the WVHC, suggested that the WVHC adopt a position using the major points of the summary. He said, "Because West Virginia plays a key role in the debate on acid rain, and because the antagonistic parties have not previously examined the 'middle ground' as it appears in these points, I think we can try hard to generate debate on these issues in West Virginia, instead of continuing in a standoff." [For more on this issue, see pages 1 and 3.] The Board adopted the following position:

The WVHC supports the dialogue process and

areas of consensus identified by the Center of Clean Air Policy regarding a "middle ground" approach to acid rain control.

Specifically the WVHC agrees that energy conservation and clean technology, coupled with a program of enforceable phases in SO₂ reduction targets, is appropriate.

The Board also voted to give its support to a number of other groups who are acting on topics affecting the Mountain State. Common Cause is campaigning for a Government Ethics Loan and the Board adopted a resolution supporting its efforts.

The Save Our Mountains (SOM) organization, headquartered in Hinton, West Virginia, has spearheaded an awareness campaign concerning the location of a MRS facility in West Virginia. The group has nearly exhausted its treasury, and the Board voted to donate \$100 to SOM to help pay for mailing and travel expenses. SOM was also offered an organizational seat on the WVHC Board, and the first year's dues would be waived.

In addition, the WVHC Board voted to support the inclusion of 2,500 acres located in West Virginia into the Mountain Lake Wilderness. This tract is included in the House version of the Virginia Wilderness Bill (H. R. 2878), but it has been omitted in the Senate (S. 1460). [For more details, see page 6.]

One of the commercial outfitters on New River wrote to the Board requesting that the WVHC withdraw its sup-

port for the inclusion of the Greenbrier in the West Virginia National Rivers Conservation Act. The outfitter felt that the inclusion of the Greenbrier is preventing the introduction of the bill in the Senate and, consequently, is jeopardizing the protective status for the other rivers — the Bluestone, Meadow, and Gauley — and the changes for the New River. The Board voted to maintain its support for the inclusion of the Greenbrier in the bill.

The Board members rejected a statement from the committee for establishing guidelines for accepting gifts from industries and individuals whose interests may be in conflict with WVHC goals. Members could not reach an agreement on the wording of the guidelines.

In other action, John Purbaugh appointed a nominating committee for Fall 1987 elections. Elections are for five at-large directors and unexpired terms until Fall 1988 for Secretary, State VP, and Federal VP. The committee members are Cindy Rank (chair), Dave Elkin-ton, Martin DiLeggi and Bill McNeel.

Skip Deegans was appointed to serve as VP for Federal Affairs until the Fall elections, and Joe Rieffenberger was appointed to fill the Past President seat. The Endowment Fund Chair is still vacant, and there are organizational director vacancies for the Kanawha Trail Club, the Kanawha Valley Council of Trout Unlimited, and the League of Women Voters.

The WVHC Fall Review is October 9-11 [See page 8].

Diverse Groups Agree On Key Element Of Acid Rain Strategy

(Washington, D.C.) "the surprising level of agreement reached by these 30 diverse organizations on how to deal with acid rain may point the way to resolution of the seven years of congressional deadlock on this issue", Center for Clean Air Policy Board Chairman and former Wisconsin Governor Tony Earl said.

"This unique project brought together traditional opposing forces: coal companies and environmentalists, midwestern and northeastern governors, utilities and consumer groups, and got them to sit down together. Most participants were from individual companies, grass roots groups or state governments and hailed from outside of the Washington area. They began by agreeing on the design of a major study of the cost of key acid rain control options to the single largest private and single largest public utility in the nation and used the results of those studies as a basis for an extended series of discussions aimed at finding common ground," Earl stated.

While the discussions were divided on some issues, such as whether a national electric tax is justified to help midwestern ratepayers, the group finessed the divisions by agreeing on the heart of an innovative acid rain control program. Agreements on one point were usually contingent on agreements on other points, so the package needs

to be viewed as a coherent whole.

Center Board Chairman Earl summarized the process by pointing out that "the agreement was based on two vital elements:

First, like most controversial regulatory programs, an acid rain program needs both a carrot and a stick to work effectively. The carrot can be support for the demonstration of clean coal technologies which can reduce the cost of controls and balance coal markets. The stick must be enforceable emission reduction deadlines that motivate the development of those clean coal technologies, while insuring that acid rain is reduced.

Second, changing the deadlines for achieving emissions reductions helps the program both environmentally and economically. By beginning with small reductions earlier, you can begin reducing the damage to sensitive lakes and forests earlier. By delaying final round reductions until the year 2000, you reduce the cost to consumers and provide more time for clean coal technology to develop. What the dialogue project has done is to redefine how we think about acid rain control. The key question is not 'have we achieved the magic 12 million ton annual SO₂ reduction?' but rather how much sulfur dioxide in total will we have removed from the atmosphere by the year 2000? Getting

small reduction early which mount up over time allows you to postpone the larger reductions, without reducing the overall protection provided to sensitive resources," Earl said.

The 198 page report, entitled "Acid Rain: Road to a Middleground Solution" was prepared by the staff of the Center which also mediated the discussions. Analytic reports on the American Electric Power and Tennessee Valley Authority systems, conducted by ICF, Inc., the premiere Washington consulting firm in the area of energy and environmental policy, are included in the report.

Highlights of the 16 months of discussion include the group's:

- support for an extended timeframe for achieving emission reductions combining small earlier reductions (such as 3 million tons within three years, five million tons within five) with a later date for completing the final round of reductions (an additional five-million ton annual reduction by 2000; midwesterners preferred a 2003-5 final deadline),
- support for a federally-assisted program of multiple simultaneous clean coal technology demonstration projects designed to speed up the availability of these emerging technologies,
- rejection of approaches which mandate

the use of particular technologies at each plant to achieve emissions reductions. Flexibility for states and sources in designing their strategies for cleanup was strongly supported,

- agreement that allocating individual state's share of overall national sulfur dioxide emissions is sound scientifically but is impractical from an economic and political standpoint (Midwestern states indicated that use of such a formula would remove the need for any subsidy to assist ratepayers), and
- support for holding down any future increase in SO₂ emissions after completion of the acid rain program through a combination of an absolute ceiling on emissions from old dirty sources and a tightening of standards for new plants built in the future, (unlike an absolute ceiling on emissions from new and old sources, this approach would avoid stifling economic growth in the south and west).

On the critical issue of timing, former Wisconsin Governor Earl noted: "The beauty of the group's recommendation is that we have here an acid rain plan that is just as strong environmentally as the major proposals in the House and Senate, yet it will cost

(continued on page 6)

Testimony of John Purbaugh before the Committee on Interior and Insular Affairs regarding the Surface Mining Control and Reclamation Act

Chairman Udall, Mr. Rahall, and members of the committee:

On the occasion of the 10th Anniversary of the passage of the federal surface mining act, it is appropriate that you meet to examine those aspects of surface mining's effect on the environment which have remained major problems despite the Act's passage. My testimony will focus on one such problem: acid mine drainage and its pollution of Appalachian rivers. As with any problem of this nature, there are many sources or causes; I will focus on those related to the provisions of the Act itself.

I. The AMD Problem

In north-central West Virginia and other Appalachian regions, certain coals are known as "hot" or acid-producing because of the high sulfur content of the coal or overburden, and a low level of natural alkalinity in surrounding strata. Drainage from these mines, called "Acid Mine Drainage" or "AMD," is characterized by low pH, and high concentrations of iron, manganese, and suspended solids. During active mining, this AMD is treated by neutralization in ponds. However, on many sites the production of AMD does not stop when the mine is "reclaimed" by a restoration to approximate original contour and revegetated. Because the sulfur was oxidized during mining, when this "hot" overburden is returned to the contour or valley fill, it produces an acid "seep" or spring, especially wherever the now-altered groundwater regime outcrops on the hillside.

Perhaps the most infamous current example of the problem is the former DLM Corporation mine near Alton in Upshur County, West Virginia. There, after ten years of mining a 3,000 plus acre site, DLM concluded that its efforts to stop residual AMD had failed, despite the application of such technological heroics as covering 500 acres with plastic, and digging trenches and wells which were filled with limestone in attempts to retard acid formation in the backfill. In August 1985, DLM entered an agreement with the State of West Virginia under which DLM surrendered all its stated assets in return for a release of all environmental liabilities. Of these assets, only \$220,000 represented reclamation bonds forfeited under the Act. The State took ownership of DLM's property, including the AMD treatment works, and itself assumed the treatment liability, with an annual operation and maintenance cost ranging from \$250,000 to \$300,000. The State is paying this cost with the initial proceeds of the Agreement (now nearly exhausted) and from the balance accumulated in the State's "Special Reclamation Fund." The State fully expects to need legislative appropriated general revenue funds in order to continue treatment in the future. The State took the unusual step of assuming treatment liability at this site because a state-funded study predicted the acidification of the entire Buckhannon-Tygart River System if the DLM AMD discharges were untreated.

Residual AMD production in this region was not unexpected. In January 1982, the West Virginia Reclamation Commission issued a decision in response to a petition to designate portions of the Buckhannon River watershed unsuitable for mining. Finding that parts of the petition area were technically unsuitable due to residual AMD production, the Commission determined that a declaration of unsuitability wasn't appropriate due to the substantial legal and financial commitment made to mining in the area. The Commission urged caution in permitting future coal development in the area.

II. Perpetual Treatment of AMD under SMCRA

Despite this history of AMD production, West Virginia continues to issue permits for new mining in the upper Buckhannon watershed. Enoxy Coal, owner of a 35,000 acre complex, was recently issued permits for further mining. The bond for such permits is set by the West Virginia regulatory program at a flat \$1,000 per acre. Permits are, of course, conditioned upon the operator's duty to meet the environmental performance standards of the Act, including maintenance of the water quality standards. The operator's statement of the probable hydrologic consequences of mining, and the agency's assessment of the cumulative impacts of all such mining in the watershed all conclude that though AMD will likely be produced, its treatment by chemical neutralization will preserve water quality in receiving streams.

It is this reliance on "perpetual treatment," together with the inadequacies of the bonding mechanisms of the Act, which need to be examined in further detail by this committee, and considered for future refinements to the Act.

The Act's primary failing in this regard is that it is inadequately coordinated with the Clean Water Act's water pollution ("NPDES") permits program, and allows mining where bonding is inadequate to assure future treatment.

SMCRA requires the operator to submit a statement of the probable hydrologic consequences of mining so that an assessment by the regulatory authority of the cumulative impacts on water resources can be made. The permit can't be issued unless this assessment indicates that the operation "has been **designed** to prevent material damage to the hydrologic balance outside the permit area." (emphasis added.)

The inadequacy of this requirement is that there's no assurance under the West Virginia bonding program that an operation **designed** to control AMD by neutralization treatment during mining will continue to pay for such treatment as long as necessary to ensure compliance with water quality standards.

The reclamation performance bonding requirements of SMCRA are that the bond be "sufficient to assure the completion of the **reclamation plan** if the work had to be performed by the regulatory authority in the event of forfeiture . . ." The reclamation plan which the bond is supposed to assure completion of is required to contain "measures to be taken . . . to assure the protection of . . . the quality of surface and ground water systems . . ."

Though the performance bond was clearly envisioned as the final guarantee of the protection of water quality and fulfillment of the rest of the reclamation plan, implementation of "alternate methods" of bonding by West Virginia and other states, approved by OSM, has prevented achievement of this goal.

(continued on page 8)

Roster of Officers, Board Members and Committee Chairs

BOARD OF DIRECTORS

PRESIDENT: John Purbaugh
Box 2502 Dudden Fork, Kenna, WV 25248 (988-9024)
SENIOR VICE PRESIDENT: David Elkinton
Route 5, Box 228-A, Morgantown, WV 26505 (296-0565)
VICE PRESIDENT FOR STATE AFFAIRS: (vacant)
VICE PRESIDENT FOR FEDERAL AFFAIRS: Scott Martin
320 Fourth Street, N.E., Washington, DC 2002 (202/547-7200 W, 202/543-7173)
SECRETARY: Mary Lou Newberger
Box 89, Looneyville, WV 25259 (565-4415)
TREASURER: Tom Michael
Route 2, Box 217, Lost Creek, WV 26385 (623-3447)

DIRECTORS-AT-LARGE

(Terms expire October 1987)

Geoff Green: Rt. 1, Box 79-A, Burlington, WV 26710 (289-3565)
Sayre Rodman: 32 Crystal Drive, Oakmont, PA 15139 (412/828-8983)
Skip Deegans: Box 564, Lewisburg, WV 24901 (645-6028) Washington, DC (202-265-9337)
Perry Bryant: 236 South High Street, Morgantown, WV 26505 (291-1465)
Jim Van Gundy: 240 Boundary Avenue, Elkins, WV 26241 (636-4736)

DIRECTORS-AT-LARGE

(Terms expire October 1988)

William P. McNeel: 1118 Second Avenue, Marlinton, WV 24954 (799-4369)
Cindy Rank: Rt. 1, Box 227, Rock Cave, WV 26234 (924-5802)
Anne Gentry, 6440-A Starlite Dr., Sissonville, WV 25310 (988-1109, 984-0065[day])
John McFerrin: 1105 Tinder Avenue, Charleston, WV 25302 (345-5646)

ORGANIZATIONAL DIRECTORS

KANAWHA TRAIL CLUB: Charles Carlson
Box 131, Charleston, WV 25321 (343-2056)
NATIONAL SPELEOLOGICAL SOCIETY: Virginia Region: Martin DiLeggi
Route 1, Box 233-A, Alderson, WV 24910 304-445-7508 (Home)
POTOMAC APPALACHIAN TRAIL CLUB: Jeannette Fitzwilliams
13 W. Maple Street, Alexandria, VA 22301 (703/548-7490)
PITTSBURGH CLIMBERS: Jean Rodman
32 Crystal Drive, Oakmont, PA 15139 (412/828-8983)
W. VA. COUNCIL OF TROUT UNLIMITED: Don Brannon
P.O. Box 38, Charlton Heights, WV 25040 (799-2476)
W. VA. MOUNTAIN STREAM MONITORS PROJECT: Milton Zelermyer
723 College Avenue, Morgantown, WV 26505 (296-6289)
KANAWHA VALLEY CHAPTER TROUT UNLIMITED: Jim Stout
P.O. Box 5189, Charleston, WV 25311 (755-9576)
BROOKS BIRD CLUB: Mary Moore Rieffenberger
Rt. 1, Box 523, Elkins, WV 26241 (636-4559)
KYOVA CHAPTER TROUT UNLIMITED: Frank Akers
1601 Sycamore St., Kenova, WV 25530 (453-1494)
LEAGUE OF WOMEN VOTERS OF WEST VIRGINIA: Anne Romance
Rt. 1, Box 150-F, Bristol, WV 26332 (783-5271)

COMMITTEE CHAIRS

WVHC ENDOWMENT FUND: Vacant
CANAN VALLEY COMMITTEE: Linda Cooper Elkinton
Rt. 5, Box 228-A, Morgantown, WV 26505 (296-0565)
MINING COMMITTEE: John McFerrin
1105 Tinder Avenue, Charleston, WV 25302 (345-5646)
PUBLIC LANDS MANAGEMENT COMMITTEE: Sayre Rodman
32 Crystal Drive, Oakmont, PA 15139 (412/828-8983)
and Donna Borders, 924 Second Ave., Marlinton, WV 24954
RIVER CONSERVATION COMMITTEE: Anne Gentry
6440-A Starlite Drive, Sissonville, WV 25320 (988-1109)
PUBLICATIONS COMMITTEE: W. E. "Skip" Deegans
Box 564, Lewisburg, WV 24901 (645-1656)
MEMBERSHIP DEVELOPMENT COMMITTEE: Mary Ratliff
Suite 201, 1206 Virginia St., East, Charleston, WV 25301
AIR/WATER TOXICS: Kim Taylor, 1420 Lee St., Charleston, WV 25301

ADMINISTRATIVE OFFICES

Adrienne Worthy, Membership Secretary Suite 201, 1206 Virginia Street, East Charleston, WV 25301 (304) 343-2767	Gary Worthington, Voice Editor 118 Clark Avenue Fayetteville, WV 25840 (304) 574-0540
---	---

Book On Sale For Half Price

What do you do with a rhinoceros in your living room? I don't know and the book **Care of the Wild** by Jordan and Hughes doesn't offer any suggestions either, but it does describe home emergency care for wild animals more likely to be found in your area.

The sale price on this hardback is \$7.00 (down from \$13.95). Add \$1.50 for postage and handling. Mail to:

WVHC
Suite 201, 1206 Virginia St. East
Charleston, WV 25301

COMMENTARY

There Is No Such Thing As "Clean" Coal

by Richard S. diPretoro

Many environmental activists and policy-makers consider themselves realistic people. They want to survive (in a professional sense) and be effective in affairs involving coal issues. Recognizing that coal mining and burning will continue into the indefinite future, many have taken the position that coal use can be accomplished in an environmentally safe manner. Coal use here is meant to include the surface and underground mining of and burning of coal. Given the assumption that coal use can be accomplished safely, they support laws to achieve that end. So far, well and good.

The problem is that most of the same people are not at all happy with the way mining and air pollution laws are performing. I believe that this dissatisfaction is permanent and inevitable and is rooted in the fallacy set out above: coal use can be accomplished in a safe manner. COAL

MINING AND BURNING CANNOT BE DONE IN AN ENVIRONMENTALLY SAFE MANNER GIVEN THE ECONOMIC AND POLITICAL RESTRAINTS WE FACE AND ARE LIKELY TO CONTINUE TO FACE.

Coal mining is "controlled destruction." The cost of significantly ameliorating the destruction of mining far exceeds the profit margin on the coal. Coal burning alters the atmosphere on a massive, unprecedented scale, interfering with the carbon, nitrogen and sulfur cycles which are crucial to life on earth. Progress has been made and more is possible in reducing the sulfur and nitrogen emissions from coal burning but the cost of removing the carbon from emissions would again far outweigh the profit possible in using the coal. Coal produces more carbon dioxide per unit of electricity than oil or gas. As such, it is the most destructive fossil fuel

we can use, although all fossil fuel use is doomed.

Tearing up the crust of the earth at an increasing rate, in the process polluting its waters, to produce a fuel which threatens the atmosphere and further pollutes soil, water and vegetation is a course of action which cannot be followed for many generations. Coal mining and burning are not societal ends in themselves even though portrayed as such by powerful interests which own the coal and power plants and want to squeeze out their long-anticipated profits before it is too late. Electricity generation is the societal end. The generation of electricity by sustainable means should be the focus of intense research and of generous funding by government. Government should not divert funds from research on sustainable alternatives to the dubious task of "cleaning" high sulfur coal. Ending the mining of environmentally

destructive high sulfur coal would be a logical first step toward the inevitable ending of all coal use. The protection from mining of the land and water in the high sulfur coal fields would be a side benefit of tough acid rain legislation.

It is long past time to openly recognize coal use as, at best, a necessary evil which must be phased out as quickly as possible by means of conservation and development of sustainable alternatives. Only in that context should environmentalists lend their endorsements to efforts to contain the destruction caused by coal use. Only when leaders emerge who have the courage to point out Emperor Coal's lack of clothers will the political atmosphere be made more conducive to the kinds of changes we need to keep the earth a viable place for us to live.

New Acid Rain Plan

"Good For West Virginia Economically And Environmentally"

John Purbaugh, President of the West Virginia Highlands Conservancy, described a middleground acid rain control plan as "good for West Virginia both economically and environmentally."

Purbaugh, representing one of 30 organizations which participated in a 16-month acid rain mediation effort conducted by the Center for Clean Air Policy, said, "This plan combines support for clean coal technology with an extended time schedule for achieving emissions reductions. The innovative time schedule means we will begin seeing reductions in emissions within a few years which is good news for the many acid-sensitive streams and for the high elevation spruce forests in the central part of the West

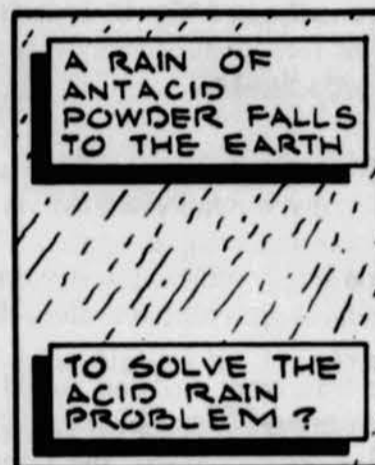
Virginia and other states."

"From an economic standpoint, those early emission reductions will probably be achieved through the use of West Virginia low sulfur coal in many states which means more jobs for our depressed southern West Virginia coal fields. Speeding the development of clean coal technology will brighten the future of northern West Virginia's high sulfur coal industry, because utilities will have an inexpensive way to burn that coal cleanly," Purbaugh continued.

The plan, outlined in the report "Acid Rain: Road to a Middleground Solution," calls for 3 million tons in annual SO2 emissions reductions to be achieved within 3 years, an additional two million tons within five years and final 5

million tons of SO2 reductions by the year 2000. This schedule will provide time for clean coal technologies to be fully developed and available for use in meeting the final phase of reductions.

"Too often, people have assumed that acid rain legislation automatically translates to bad news for West Virginia's economy and for coal. This new broad-based control plan carries a different message. Because of our position as both a high and low sulfur coal producer, West Virginia can be a net winner under this plan both in terms of gaining new jobs as well as protecting our unique natural environment," Purbaugh concluded.



MODERNE MAN

1984 © Bruce Von Alten

Reasons to join WVHC

The West Virginia Highlands Conservancy is a private, non-profit environmental organization started in 1967. Its objectives are "to promote, encourage, and work for the conservation - including both preservation and wise use - and appreciation of the scenic, historic, open space, wilderness, and outdoor recreation resources of an related to West Virginia, and especially the Highlands Region . . ."

Members include people and organizations diverse in their personal interests and professions but united by a common interest. Most WVHC members are West Virginians but many live outside the state.

The Highlands Voice, a monthly 8-page

newspaper, is sent to all Conservancy members. It is filled with environmental news on topics of interest and concern to members as well as articles about trips and outings.

The Conservancy sponsors two special weekends each year. These are usually at some scenic spot in the highlands and feature speakers, outings and board meetings.

Your contribution to WVHC is tax deductible and joining is as simple as filling out this form and returning it to the office in Charleston.

Join today and become part of an active organization dedicated to preserving West Virginia's natural resources.

WVHC Membership Categories (Circle One)

Category	Individual	Family	Organization
	\$	\$	\$
Senior/Student	12	---	---
Regular	15	25	50
Associate	30	50	100
Sustaining	50	100	200
Patron	100	200	400
Mountaineer	200	300	600

Name: _____ Phone: _____

Address: _____

City/State/Zip _____

Make checks payable to: West Virginia Highlands Conservancy
Mail to: Suite 201, 1206 Virginia St., E., Charleston, WV 25301

Membership Benefits

- 1-year subscription to **The Highlands Voice**
- Special meetings with workshops and speakers
- representation through WVHC's efforts to monitor legislative activity.

The West Virginia Highlands Conservancy is a non-profit organization. Your contribution is tax-deductible. Please keep this for your records.

Date _____

Amount _____

Check number _____

Peregrine Falcons In The New River Gorge

For nearly a six-week period this summer, a visitor to the New River Gorge area had a chance, a slim one, but still a chance of seeing a peregrine falcon. The duck hawk, the great-footed hawk, the peregrine was back, if only for awhile.

On June 6, three peregrine falcon chicks were brought to the New River Gorge and tucked into their hack box on a cliff side high over the river. The chicks, the first to be released in West Virginia, are part of a plan sponsored by the Peregrine Fund at Cornell University and other agencies to restore peregrines to the wild.

In 1965, the American Peregrine Falcon (*Falco peregrinus anatum*) was declared to be extinct as a nesting species east of the Mississippi River by an international conference on the peregrine held in Madison, Wisconsin. The culprit: DDT. The widespread use of DDT as an insecticide beginning in the late 1940s led to catastrophe for the falcons. The effects of DDT were found to be cumulative. DDT built up in the fatty tissue of small birds that ate contaminated insects. Then the falcons that preyed upon these small birds absorbed even greater concentrations of DDT.

Once in the falcon's system, the DDT retarded the movement of calcium and caused the shell gland to produce eggs with very thin shells. Sometimes the shells would break under the weight of the brooding birds, and even if the eggs did not crack, the shell could not maintain a proper moisture and gas exchange to keep the embryo alive.

In 1970, The Peregrine Fund was founded at Cornell University to study the falcons and find a way to restore them as successful breeders. The Fund initiated a captive breeding program, and by taking birds from wild nests at an early age and raising them specifically as breeders, the Cornell facility managed to produce its first captive-bred falcons in 1973.

To increase the number of eggs laid each year, the Peregrine Fund researchers took advantage of "double-clutching," the ability of most birds to lay another, or sometimes a third, set of eggs if the first are removed. By 1975, the Cornell lab had produced enough falcons to begin the release program.

The release program involved creating a nest-like atmosphere for the young birds either on traditional cliff sites or on platforms high above the ground. Field workers became surrogate parents for the young falcons and would make sure that they had food and were protected from other predators. The workers provided for the birds but did so as secretly as possible so the young birds would not associate food with people.

Only five years after the first release, enough peregrines had been established for successful pairing and nesting, and for the first time in over 20 years, wild peregrines were hatched east of the Mississippi River. By 1986, there were 43 pairs in the east and 30 of them laid eggs.

In 1984, the Peregrine Fund produced 124 birds for release. With more birds available for release and more already released birds returning to established hacking sites, expansion of the peregrine recovery program could begin in the Southern Appalachians because there was less need for releases to be made in the Northeast and the Atlantic Coastal

regions. The plan for releasing birds in the New River Gorge area in West Virginia began in late 1984.

There were no known nesting sites in the Gorge, but there had been documented eyries in the White Sulphur Springs area in Greenbrier County and on the Guyandott River near Baileysville in Wyoming County. The high cliffs along the New River Gorge seemed conducive to nesting for the peregrines, and sponsoring agencies felt that the newly created New River Gorge National River would offer some protective status for the birds if an acceptable site could be found within its proposed boundaries.

Officials from the West Virginia Department of Natural Resources Non-game Division and National Park Ser-



Bill Roody is about to drop a vitamin-enriched domestic quail down the food tube attached to the falcons' hack box. In order to keep the falcons from losing their fear of humans, actual contact with the birds was limited.

vice at the New River Gorge National River searched the canyon rim for a site that was fairly isolated, yet would offer access for field workers to bring in supplies. They found a site that had a food supply sufficient to support the falcons and was near enough to open habitat to allow the falcons to hunt effectively.

Competition from other predators would be a factor, for the gorge area is host to a variety of other raptors, including red-tailed, red-shouldered, and Cooper's hawks and barred and great horned owls. The most serious threat to

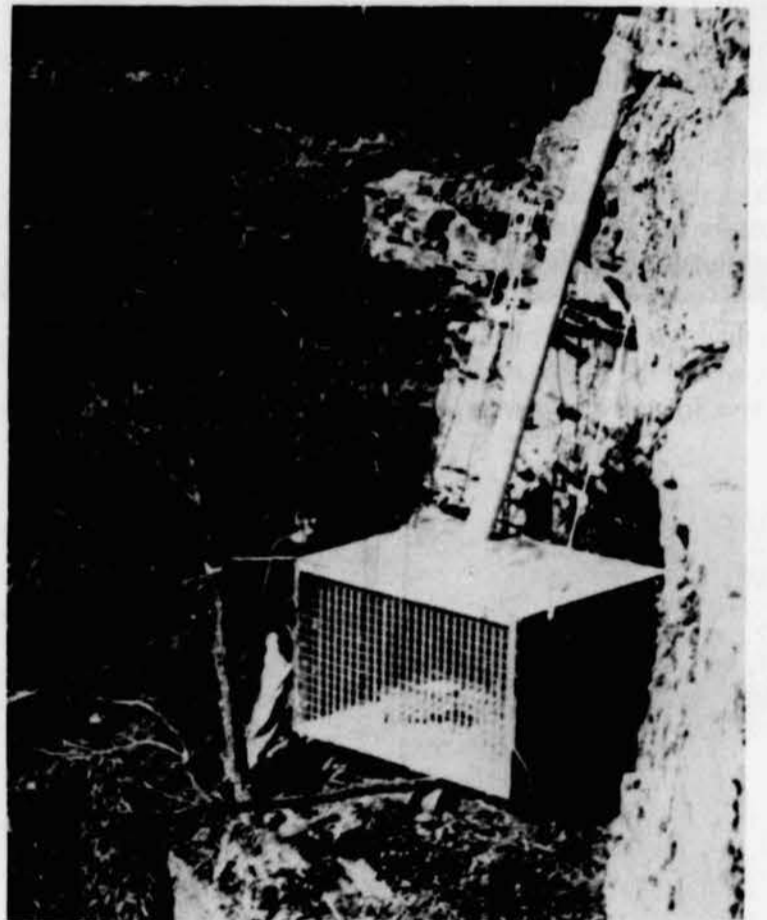
young falcons is the great horned owl, but fortunately a survey conducted at the release site and nearby area in the late winter of 1985 did not turn up any great horned owls.

The site was now ready for the peregrines, but since the gorge site was more than 100 miles from any previous hacking site and more than forty miles from any historical site, it was given a low priority. It is assumed that peregrines will return to the release site or somewhere in the general vicinity to breed, but since there is a high mortality rate for young birds, release sites are clustered in order to allow a population to build up in an area and increase the probability of pairing and nesting. Since there were no other release sites close to it, the New River Gorge would have to wait for its birds until sites closer to the establishing population had their birds.

Finally, two years after the initial preparation, the falcon chicks arrived in the Gorge. Their sitters for the summer, the field workers who would watch over them and record their progress for the Peregrine Fund, were Bill Roody and Donna Mitchell from Barbour County, West Virginia.

Both workers have backgrounds in the study of West Virginia natural history and leaped at the opportunity to work on the project. "I look upon the job as being almost honorary," said Roody.

Before the falcons were flying, the field workers had to feed the birds and keep the cage clean. The food, pen-raised domestic quail, was dropped into a feeding tube that led to the cage. This prevented the falcons from seeing the source of the food and they would not associate people with their food supply.



The hack box was located on a ledge about 12-15 feet over the rim of the canyon. Donna Mitchell is about to enter the box to clean it.

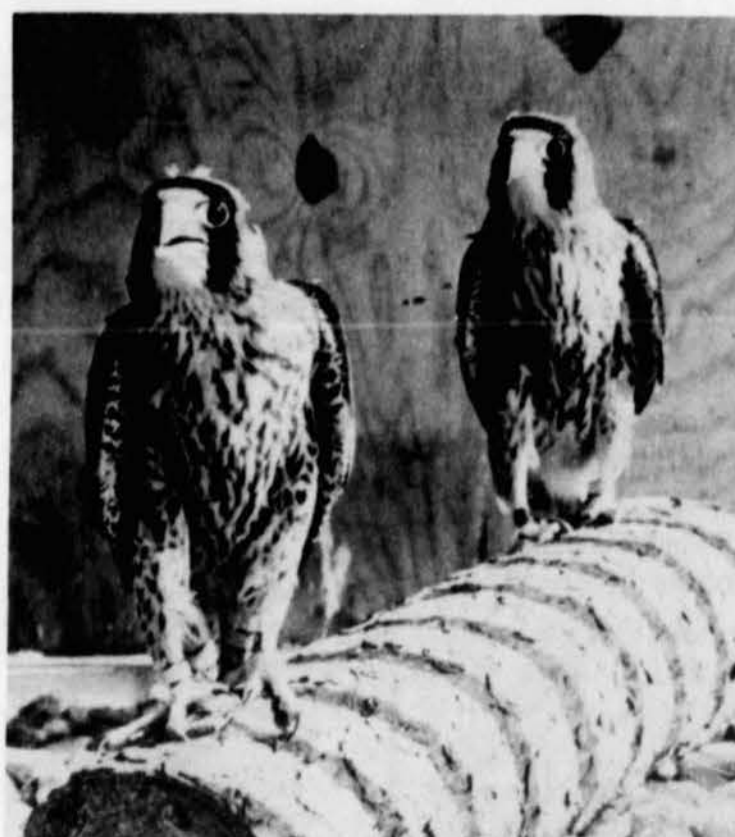
The cage was opened about 10 days after the birds arrived, and they immediately began prowling around on the ledge, flapping and testing their wings. Roody described the first flight of one of the birds as an almost magical moment when "the female peregrine launched herself into the air and discovered she could fly." Mitchell's interpretation is somewhat different. She says, "The female was standing near the edge of the ledge and one of the others bumped into her and knocked her off. She had to fly."

"It was a delightful experience, almost humorous," Roody explained, "watching the falcons learn how to fly." Apparently they do not become masters of the air immediately, but bump, bang, and bumble around for a few days before they become smooth fliers. One landing attempt was particularly amusing for Mitchell. "The female flew toward a horizontal branch and grabbed it with her claws. She hung on but flipped over nearly upside down before she righted herself."

This is a dangerous time for the young falcons, for if they do become grounded they may not get back to eat and could starve or be killed by other predators. "I really felt like a foster parent at this point," Mitchell said, "right down to worrying about them if they were gone from the site too long."



The peregrine chicks were about 5 weeks old when they arrived in the New River Gorge. Pictured



here at 6-6½ weeks, they have lost nearly all of their down and soon would be flying.



At this stage the falcons were free flying, but still dependent upon the field workers for food.
Photo by Don Kodak

About two weeks after being released, one of the birds did have a flight accident and damaged its wing. Roody and Mitchell with the help of two rangers from the NRGNR located the bird and took it to a local vet, but it did not recover.

The Great-Footed Hawk

from John James Audubon, *The Birds of America*, 1840

The Great-Footed Hawk, or Peregrine Falcon, is now frequently to be met with in the United States, but within my remembrance it was a very scarce species in America. I can well recollect the time when, if I shot one or two individuals of the species in the course of a whole winter, I thought myself a fortunate mortal; whereas of late years I have shot two in one day, and perhaps a dozen in the course of a winter. It is quite impossible for me to account for this increase in their number, the more so that our plantations have equally increased, and we have now three gunners for every one that existed twenty years ago, and all of them ready to destroy a hawk of any kind whenever an occasion presents itself.

The flight of this bird is of astonishing rapidity. It is scarcely ever seen sailing, unless after being disappointed in its attempt to secure the prey which it has been pursuing, and even at such times it merely rises with a broad spiral circuit, to attain a sufficient elevation to enable it to reconnoitre a certain space below. It then emits a cry . . . and flies off swiftly in quest of plunder. The search is often performed with a flight resembling that of the tame pigeon, until perceiving an object, it redoubles its flappings, and pursues the fugitive with a rapidity scarcely to be conceived. Its turnings, windings and cuttings through the air are now surprising. It follows and nears the timorous quarry at every turn and back-cutting which the latter attempts. Arrived within a few feet of the prey, the Falcon is seen protruding his powerful legs and talons to their full stretch. His wings are for a moment almost closed; the next instant he grapples the prize, which, if too weighty to be carried off directly, he forces obliquely toward the ground, sometimes a hundred yards from where it was seized, to kill it, and devour it on the spot. Should this happen over a large extent of water, the Falcon drops his prey, and sets off in quest of another. On the contrary, should it not prove too heavy, the exulting bird carries it off to a sequestered and secure place. He pursues the smaller Ducks, Water-hens, and other swimming birds, and if they are not quick in diving, seizes them, and rises with them from the water. I have seen this Hawk come at the report of a gun, and carry off a Teal not thirty steps distant from the sportsman who had killed it, with a daring assurance as surprising as unexpected. This conduct has been observed by many individuals, and is a characteristic trait of the species . . .

As the others improved their flying skill, Roody risked being anthropomorphic and said he could feel their joy while watching them fly. "They would pick sticks from trees and fly with them. At times, they seemed to be flying just for the joy of flying."

By the first week of July, the peregrines were beginning to skip meals at the hack box. They would be gone for a day or two and then return to feed and be off again. The Peregrine Fund guidelines explain that if the birds are gone for three or four days, the field workers can assume that the birds are hunting on their own and can leave. By the third week in July, these peregrines were gone for four or five days and Roody and Mitchell packed up their camp.

"I'm ready for the project to end," said Mitchell, "but I'm sorry to see the falcons go." Both Mitchell and Roody are willing to do it again. "It was a great experience," they agreed. "We made a contribution to the project. We got to spend 8 weeks in an area of the state that was new to us, and we got to meet many supportive people. That was perhaps the best part of the experience."

Craig Stihler who is coordinating the project for the Non-game Division of the DNR was pleased with this year's effort. "Everything went according to plan," he pointed out. "Bill and Donna were ideal workers. They're very dedicated and conscientious people. We also received good support from the other agencies involved and many local people pitched in."

Some problems with rock climbers had been anticipated since the release site is near a popular climb area in the Gorge. "The climbers were cooperative, for the most part," Stihler said. "Of course if you had driven a couple of hundred miles or more to climb and then found the area shut down, it would be upsetting." Part of the problem was, Stihler feels, that not enough advance notice was given the climbers. "Once word got around that part of the cliff ledges was closed, most people were cooperative."

The Gorge site may be used again in 1988, but that in part depends upon the falcons. "Usually," Stihler explained, "the birds won't return for two or three years, but occasionally they come back to the hacking site the following year."



Drawn from Nature by J. J. Audubon

New Book On Peregrines

The Peregrine Fund, Inc. is pleased to offer *Peregrine Falcon Populations: Their Management and Recovery*, the proceedings of the 1985 Peregrine Conference held in Sacramento, California, in conjunction with the Raptor Research Foundation. The conference commemorated the 20th Anniversary of the now-famous 1965 Madison Conference convened by Dr. Joseph Hickey at the University of Wisconsin. Many of the original participants tell us what has occurred over the past two decades, how Peregrine populations are recovering nearly worldwide, what new research has shown, and what the future holds for this species.

This hardbound book is a single 700 plus page volume edited by Tom J. Cade, James H. Enderson, Carl G. Thelander, and Clayton M. White. It includes over 80 technical papers by Peregrine researchers from around the world. Several chapters have been added to those presented at Sacramento, as well as 32 pages of photographs, a full-color plate of a Peregrine painting by Jim Grier, and line drawings by John Schmitt. Sections include:

- Conference keynote addresses
- Status of Peregrine Populations since 1965 — North America
- Status of Peregrine Populations since 1965 — The Rest of the World
- DDT and Other Chemical Problems
- Migration and Banding Studies
- Captive Propagation, Reintroduction, and Management

This can cause problems, for the returning birds may attack the young." Stihler also reported on one or two cases where the sub-adult birds had returned the following year and had adopted the new birds. "A release site can be used until the previously released birds begin returning to the area, and it generally takes from two to five years to build up the nesting population," he said.

The Non-game Division is checking into releasing falcons in other areas of West Virginia. "We have one or two sites we're exploring in the Monongahela National Forest," Stihler said, "but no definite plans have been made."



Bill Roody and Donna Mitchell kept a nearly constant watch on the peregrines. They recorded the birds' behavior in a log, noting their intake of food, their flight progress, and their interaction with each other and other animals.

- Dynamics and Geographic Variation of Peregrine Populations
- Man and the Peregrine

You can order your copy now through The Peregrine Fund at the pre-publication price of \$34.00. This special offer expires November 1, 1987, when the regular price of \$39 will go into effect.

To Order:

Send check or money order (no cash, US funds only) for \$34 plus \$3.75 for postage and handling to:

The Peregrine Fund, Inc.
5666 West Flying Hawk Lane
Boise, Idaho 83709

1987 Proceedings Of New River Symposium Available

The 1987 New River Symposium Proceedings are now available at the Canyon Rim and Hinton Visitor Centers.

These papers are a result of the multi-disciplinary Symposium held at Appalachian State University, Boone, North Carolina on April 9-11. Some of the articles contained in this year's Proceedings are "Ecological Impacts on Recreational Sites at New River Gorge National River, West Virginia," "Mary Draper Ingles: The Story of A Pioneer Heroine's Captivity and Escape," and "The Town of Kaymoor." The articles are about locations not only in West Virginia, but in North Carolina and Virginia also.

The New River Symposium is held annually each spring in one of the three states North Carolina, Virginia and West Virginia — through which the New River flows. The 1988 Symposium will be held in Oak Hill, West Virginia, from April 7-9 at the Holiday Inn.

This year's Proceedings are 212 pages in length and contain 20 articles. They may be purchased from Eastern National Park and Monument Association, P.O. Box 117, Lansing, West Virginia 25862. Cost by mail is \$12.50. They may also be purchased at the Canyon Rim Visitor Center north of Fayetteville, West Virginia, or the Hinton Visitor Center in Hinton, West Virginia, for \$10.00 plus tax. Copies of Symposium Proceedings from 1982-1986 are also available.

Guided Train Trip Through The New River Gorge

Through the cooperative efforts of Amtrak, Collis P. Huntington Railroad Historical Society, and the National Park Service, narrated train rides through the New River Gorge will again be offered during August and September of this year. Members of the Collis P. Huntington Railroad Historical Society have volunteered to ride the train from Montgomery to White Sulphur Springs, West Virginia, every Sunday. They will board the eastbound train in Montgomery at 10:01 a.m. and arrive in White Sulphur Springs, West Virginia, at 12:41 p.m. Here passengers can walk the grounds, visit the shops, and have lunch or supper at the famous Greenbrier Inn before boarding the train at 7:22 p.m. for the return trip to Montgomery.

The National Park Service, who offered this service prior to Amtrak's scheduling change in the fall of 1986, will provide train-

ing for and logistical support to the historical society. All three agencies hope that this service will provide rail passengers with a memorable experience as they travel through the New River Gorge. Timothy P. Gardner, Amtrak's Vice President of Passenger Marketing said, "We are pleased that the Collis P. Huntington Railroad Historical Society has volunteered to provide this service to Amtrak's rail passengers. We would also like to thank the staff at New River Gorge National River for its efforts in seeing that this valuable experience continues to be available to rail passengers."

For further information about the narrated trip through the New River Gorge, rail passengers can call Amtrak at 1-800-USA-RAIL. They should specifically request information about Amtrak's Cardinal run from Montgomery, West Virginia, to White Sulphur Springs, West Virginia.

2500 Acres In West Virginia May Become Wilderness

About 2500 acres of Monroe County, West Virginia, in the Jefferson National Forest could become part of the existing Mountain Lake Wilderness. This section was part of the original citizens proposal for the Mountain Lake Wilderness, but it was omitted from the 1984 Virginia Wilderness Act as passed.

West Virginia Congressman Harley Staggers, Jr., is in favor the addition, but the addition is not yet supported by West Virginia's Senators. The West Virginia addition is included in H. R. 2878, which was introduced by Virginia Representatives Jim Olin and Rick Boucher on July 1. A similar bill in the Senate, S. 1460, does not contain the West Virginia land, but it could be added later. People who want to support this addition are urged to write to the West Virginia Senators.

The Virginia Wilderness Bill, if passed, would add over 25,000 acres of Wilderness to the Jefferson and George Washington National Forests in Virginia. The areas

included in both the House and Senate versions are Rough Mountain in Bath County (9300 acres), Rich Hole in Rockbridge County (6400 acres), Barbour's Creek in Craig County (5700 acres) and Shawvers Run (3570 acres) also in Craig County.

These areas were created as Wilderness Study Areas by the 1984 bill. Full Wilderness designation for these areas had been opposed by Westvaco, which operates a pulp and paper mill near Covington, Virginia. According to the Virginia Wilderness Committee, the company had opposed full Wilderness status because of Clean Air Act concerns, but in April of this year. Westvaco dropped its opposition.

Also included in both versions is a 72-acre addition to the Lewis Fork Wilderness lying close to the summit of Mt. Rogers, the highest point in Virginia at 5729 feet. This is a technical correction, for this tract was accidentally omitted from the official boundary map when the Wilderness was created in 1984.

MRS In West Virginia - Still Possible

Because of opposition by the state of Tennessee, a Senate committee in Washington has decided to reopen the bidding for a nuclear waste dump that a group of West Virginians has been trying to attract for months.

The Senate Energy and Natural Resources Committee voted 17-1 on July 29 to reopen the bidding. The action, however, will take a vote of the full Congress, which is not expected until October.

But the potential re-bidding process is expected to give fuel to the quiet controversy over the Monitored Retrievable Storage facility. Until this week, the U.S. Department of Energy had picked Oak Ridge, Tenn., as the MRS site.

Not one member of West Virginia's congressional delegation has favored the project coming to the Mountain State, but several months ago residents in four southern counties formed the Southern West Virginia MRS Task Force in an attempt to get the facility.

They lobbied for the MRS in numerous ways, including a recent letter-writing campaign targeting federal officials.

Dr. David Corcoran, chairman of the task force and publisher of the Welch Daily News, has said the southern part of the state needs the jobs and economic incentives that would come with the plant.

Other groups, however, like the Save Our Mountains coalition have adamantly opposed the project, saying it would cause much more harm than good. Andrew Meier, SOM spokesman, said there is no point in creating jobs if the end result is the destruction of the state.

Senator Rockefeller has been opposed to the facility's being located in West Virginia. He said, "The foremost concern relating to this facility is that of safety hazards or accidents. It's essential that we never lose sight of the fact that

MRS will be handling and storing nuclear waste material — materials, that even in their most minute forms, are deadly, and have half-lives measured in the tens of thousands of years. Transportation of nuclear waste across West Virginia and the storage of them of West Virginia soil must be a matter of the highest concern for all of us."

Rockefeller also discussed the economic aspects of locating an MRS in Wyoming County:

According to the most accurate information my staff has been able to gather, direct employment from this facility would be about 600-800 workers, while short-term construction jobs will employ a maximum of about 700 workers over a period of 4 years; however, it is not clear how many of these permanent and construction jobs will be Tennesseans (or West Virginians, should the MRS locate here) because a **nuclear background is needed** for some of the MRS and construction positions. It is also important to note that the 600-800 jobs at the facility itself will likely not come on line for about 10 years, as the facility is developed. A change in the site to West Virginia could well delay the start-up of the facility into the next century.

Certainly this level of employment would not be insignificant, and neither would any spin-off jobs that might be created. But given the highly specialized nature of this facility, even during its construction phase, there is a high probability that construction and supervisory personnel would come from other states where nuclear power technology is developed. I question, therefore, whether the job creation figures often cited, and that have tempted public support for this project, are highly inflated.

There can be little doubt that the construction of an MRS facility in southern West Virginia would have negative effects on future economic development for all local economies. As the nuclear waste industry begins to establish itself in the local area, the probability increases that the area would be shunned by industries or businesses that are skeptical about being in the vicinity of radioactive materials. This negative perception could also lead to local economic losses because of a decline in tourism or loss of outdoor recreation dollars.

As evidence of this potential stigma, a survey conducted by the state of Tennessee suggested that there were firms that would not come to the state if an MRS was located there. In these surveys, a significant number of people felt the MRS would be an **absolute deterrent**, even at distances of 100 miles. Please realize that by locating the MRS in Wyoming County (one county that has been suggested for the placement of the MRS by its proponents), a range of 100 miles will directly affect one third of the state along with Charleston, Beckley, Bluefield, and Huntington. These cities are some of the most populated in West Virginia and have vital importance to attracting more jobs to the state.

The bill passed by the Energy and Natural Resources Committee instructs Department of Energy officials to search and survey sites for the MRS from now until Jan. 1, 1989. If no state volunteers to accept the nuclear waste dump by then, the legislation calls for federal officials to pick another site by October 1989.

[From **The Charleston Gazette** and a letter from Senator Rockefeller.]

Acid Rain Strategy (From page 1)

less to ratepayers and insure a balance in high and low sulfur coal markets. The combination of support for clean coal with a staggered timeframe for reductions means early reductions are gotten cheaply through fuel switching, coal washing and other means and more costly later reductions are deferred. And as the ICF studies show, the development of new technologies may give midwestern state governors the opportunity to both hold down rate increases and protect many of their own coal miners jobs while meeting the final phase of emissions reduction requirements," Earl concluded.

"The results of the analytic studies of the American Electric Power Company and Tennessee Valley Authority track well with the recommendations of the dialogue group. Flexible approaches are clearly big money savers and stretching out the final round of

reductions also helps consumers," Center Executive Director Ned Helme stated in outlining the principal findings.

"Two findings jump out at you from these studies," Helme said. "First, the cost of achieving a ten million ton SO₂ reduction on either the AEP or TVA system is 3% or less if you take the cheapest route. This is very encouraging news to consumers, given these two utilities emit more SO₂ than any other utilities in the U.S. Second, by relying on clean coal technology, American Electric Power could continue to use virtually all of its current high sulfur coal supplies at a rate increase in the neighborhood of 4%, the Center director pointed out.

The studies examined the costs to each utility of achieving its share of a national 10 million ton SO₂ emissions reduction over differing timeframes. AEP and TVA pro-

vided extensive information on the characteristics and operation of their systems, including projected future demand levels, operating constraints, and the cost of retrofitting scrubbers at each of their plants which formed the basis for the study. Using its nationally recognized coal model, ICF developed estimates of delivered coal costs to each plant on each of the systems.

Other analytic findings detailed in the comprehensive report include:

- AEP's compliance costs in the year 2000 ranged from a rate increase of 3% for the least cost approach (emphasizing fuel switching) to a 9% increase for a strategy employing scrubbers to protect in-state coal production.
- TVA's compliance costs in the year 2000 ranged from a 2% rate increase for the

least cost scenario and 4% for a scenario requiring each plant to meet the same emission rate. Fuel switching and greater use of low emitting plants were the keys to the lower cost plan.

- Extensive reliance on energy conservation could reduce rate increases to 2.5% on the AEP system and to 0 on the TVA system in the year 2000.
- Both studies examined a flexible compliance plan stretching final deadlines to when plants reached 30 years of age. This scenario significantly reduced costs and minimized reductions in high sulfur coal use. However, it also reduced the size of the emission reductions achieved in 2000. It resulted in costs and emission reductions comparable to the other least cost approaches by 2010.

NEWS BRIEFS

Conservation Could Cut Acid Rain Costs

WASHINGTON (UPI) — Consumer and environmental groups told Congress Monday billions of dollars in the costs of acid rain controls could be saved by conservation measures that would reduce electricity consumption.

The inclusion of such measures in pending acid rain control legislation was urged in a report released by a coalition of environmentalists, utilities and consumer advocates.

The report, "Acid Rain and Electricity Conservancy," said proposed controls on the release of power plant emissions blamed for acid rain could cost consumers from \$3.6 billion to \$8.4 billion by the year 2000.

But the report said that between \$3.7 billion and \$7.7 billion could be saved if the consumption of electricity is reduced by 26 percent through energy-saving measures.

"The various acid rain bills now being considered by Congress should be modified to ensure that states and utilities have an incentive to incorporate electricity conservation in their pollution control efforts," the report said.

The report was released by members of the American Council for an Energy Efficient Economy and the Energy Conservation Coalition at a news conference at the Capitol.

It was based on a study covering Ohio, Michigan, Indiana, Kentucky, West Virginia and parts of Maryland and Pennsylvania — an area that the report said was a major source of sulfur dioxide emissions from coal-burning power plants.

From *The Charleston Gazette*, 7/14/87

World Population At 5 Billion

ZAGREB, Yugoslavia (AV) — U.N. Secretary-General Javier Perez de Cuellar took newborn Matej Gaspar in his arms Saturday and proclaimed him the world's 5 billionth person.

"It's a beautiful baby and I want to congratulate you," he told parents Sanja and Dragutin Gaspar shortly after Matej was born at 8:35 a.m. (2:35 a.m. EDT). He said he hoped the birth would "mark a new generation of peace."

The U.N. leader noted that nine out of 10 children in the world are born in developing countries.

The U.N. population fund was trying to draw world attention to the growth in global population, which is speeding toward 6 billion by the year 2000 and toward 10 billion by the beginning of the 22nd century.

The fund said world population is growing at about 150 a minute or 220,000 a day.

"We took the 1984 statistics and projected them to arrive to the exact number on July 11th," said Alex Marshall, the fund's chief of publications. "The figures are just an approximation and this is strictly a formal celebration."

China, the world's most populous nation at 1.057 billion people, celebrated the Day of the Five Billion with a rally at Beijing's Great Hall of the People.

Xu-Dixin, president of the Population Society of China, told about 500 people at the meeting that "it is still an arduous task to control the population of the whole country to around 1.2 billion by the year of 2000."

In China's most populous city of Shanghai, which has 12 million people, local government officials wearing matching T-shirts for the occasion jogged through the city.

After visiting baby Gaspar, Perez de Cuellar opened a U.N. population fund exhibition titled "A Day to Celebrate, a Day to Contemplate."

In his speech at the opening ceremony, he urged the world to "pause for a moment to contemplate the world's future."

"For the first time in our history, we are able to support 5 billion people. For the first time we can say with confidence that we have the ability to support those who will come after," Perez de Cuellar said.

He called for better use of the world's resources and for the international community to "remember that the fate of one of us is the fate of all. This is the message of the 5 billion."

From *The Sunday Gazette-Mail*, 7/12/87

Fish Kill Raises Concern For River

ARDEN (UPI) — The death of about 2,000 fish in the Tygart River, an alleged result of acid mine drainage, has left area residents angry and concerned about the river's future.

A public meeting is scheduled next Thursday at the Barbour County Courthouse to discuss the severity of the kill and residents' views on the response of state agencies, such as the Department of Natural Resources and Energy Department.

State and local environmental agencies have begun an investigation into the kill, which they suspect may have been caused by the overflow of a mine settlement pond on the property of Black Diamond Coal Co.

Acid mine drainage entered Fox Grape Run and Hacker's Creek, both of which empty into the Tygart River, officials said. The accident is believed to have occurred last week.

"Everywhere you looked there were fish of all sizes lying on the banks," said Mike Withers, commissioner of neighboring Taylor County. "Coupled with the bones where scavengers had been eating the dead fish, it was not a pretty sight."

Paul Mitchell of Arden commented, "I used to say that the view from my window was worth \$10,000. But, now every time I look out there, I just get mad because none of this had to happen."

Smallmouth bass, catfish, carp and suckers were killed in the incident.

Willie Nestor, who has lived in Arden the 15 years, said the river has been an important part of everyday life for area residents.

"It was a place for the children to swim and play, for fishing as well as meeting neighbors," he said. "It was relaxing just to sit and look into after the day was done."

"Now where do we go? Who can fix this, who can give us back what we have lost?"

Barbour County Commissioner Ken Dadisman said he hoped other counties such as Harrison, Marion, Monongalia and Taylor would combine efforts to improve the river.

"We all have a lot at stake," he said.

From *The Charleston Gazette*, 7/3/87

Park Service Officials Tour Jackson Dam Area

WESTON (AP) — Representatives from the National Park Service, Congress and a citizens group toured the rugged hills surrounding the Stonewall Jackson Dam on Wednesday in the first step toward having the site named a national park or recreation area.

"I'm encouraged that we got the National Park Service to come in and take a look," said U.S. Rep. Bob Wise, D-W. Va. following an inspection by park service representatives at the request of Wise and U.S. Sen. Jay Rockefeller, D-W. Va.

"I think it will be a long haul. But I'm optimistic," Wise said.

The \$200 million dam, completed by the U.S. Army Corps of Engineers last year, is located on the West Fork River about three miles south of Weston in Lewis County.

More than 800 acres of land upstream from the dam have been cleared and will be flooded beginning in January 1988 to create the state's largest lake—and one of the largest in the Eastern United States—with 82 miles of shoreline.

"Giving Stonewall Jackson Lake federal status would provide north central West Virginia with an enormous — and sorely needed — economic boost," Wise, Rockefeller and Sen. Robert Byrd, D-W. Va., said in a joint statement issued after the morning tour.

J. Glenn Eugster, chief of the division of park and resource planning for the park service in Philadelphia, called the area "a real special place."

Eugster said he and other park service officials will evaluate a proposal by a citizen's group headed by state Del. Bob Conley, R-Lewis, before deciding whether to grant the area national status.

Under the proposal, 20,000-acre park would surround the dam, which is named for Confederate Gen. Thomas J. "Stonewall" Jackson, the Clarksburg native who Robert E. Lee called his "right arm."

From *The Register Herald*, 7/16/87

Rahall Criticizes New River Park Plan

OAK HILL (UPI) — The draft management plan for the New River Gorge National River released last month has drawn critical comment from Rep. Nick Rahall, D-W. Va., for contradicting a bill recently passed by the House of Representatives.

David Reynolds, a management specialist with the National Park Service at the New River, said Rahall's office criticized the plan for attempting to limit the commercial use of the Cunard access area.

The West Virginia congressman also said the banning of commercial motors on the river suggested by the plan is divergent from the bill approved by the House.

Rahall's bill, currently pending Senate approval, called for unlimited commercial and private use of the controversial access point, as well as use of commercial motors on the river. Jim Zoia, a spokesman for Rahall, said the park's plan would hurt tourists in the area.

Both private and commercial boaters, looking for white water, use the access point to avoid slow moving water when the river level is down.

"We are vehemently opposed to denying access," Zoia said. "There should be access to all Americans on federal land. Those who do not have the ability or care to [ride boats] privately — they are being disenfranchised."

Zoia, staff director of the mining and natural resources subcommittee, said Rahall's office only commented on those parts of the plan "that are also the subject of legislation."

Rahall's legislation would create one of the largest groups of federally protected rivers in the country, including the network of the Gauley, Meadow, Bluestone and Greenbrier rivers.

But the bill also is involved with river management at the New River Gorge National River, an area of interest to both commercial and private boaters.

Reynolds said the Park Service and the New River Gorge Citizen's Task Force, who wrote the draft management plan, want commercial access at Cunard limited to six days a week, excluding Sunday.

"The park hopes to provide a time for private use, without people having to compete with the commercial traffic — which is 90 percent of the traffic on the river," Reynolds said.

From *Sunday Gazette-Mail*, 7/19/87

Mining In The New River Gorge

Alleged abuse of surface mining prospecting permits in or near New River Gorge has been brought under control, according to Office of Surface Mining reclamation inspector Don Steck of Beckley.

"There was a problem," said Steck, "but I think the problem is in hand. I don't think DOE [State Department of Energy] is issuing any more prospecting permits within 300 feet of the park boundary, unless there are valid existing rights."

Steck contended DOE "was lax for a while" in that it allowed coal operators to exceed the limits of prospecting permits.

There are presently only two disturbed areas within the New River National River boundary, Steck said, and both are under control.

One is by Laker Mining Co. of approximately three areas, and the other is by Willhaven Coal Co. of approximately one-half acre.

Steck predicted timbering "has the potential to be a big problem" in the New River area. "I'm seeing a lot of logging in and near the gorge," he said. "They seem to be moving in more and more, and they're unregulated except on a voluntary basis."

Bob Grafton, DOE's permit review supervisor at Oak Hill, confirmed the state agency is presently not issuing prospecting permits within 300 feet of the national river boundary, unless valid existing rights can be proven.

He said there are no valid existing rights within the boundary, but will be if Rep. Nick Rahall's river bill passes. The bill would take in additional land for the national river, and Grafton said the question of valid existing rights will probably arise on some of the new lands.

Grafton said the Laker and Willhaven operations are on the plateau above the gorge near the community of Terry. He said there are no mining operations in the gorge proper.

The DOE official said he doesn't think there were abuses of prospecting permits in the past, as was alleged.

From *The Sunday Gazette-Mail*, 7/12/87

Come To The Fall Review

1987 Fall Review/WVHC 20th Anniversary Celebration

The 1987 Fall Review will be held October 9-11 at Cass Scenic Railroad State Park at Cass in Pocahontas County. Since this year marks the Conservancy's 20th anniversary, the Review Committee sought a somewhat special setting for this particular fall review weekend, and the town of Cass and its surroundings seem to fit that requirement admirably.

Cass is an early 1900s lumbering town which, along with the lumber railroad which served it, is being renovated as a West Virginia State Park. At the present time, eleven of the old company houses, wooden sidewalks and all, have been renovated and are available for rental by the public on a short term basis. The Conservancy has reserved four of these houses as lodging for 1987 Fall Review participants.

During the Review weekend, the Cass Scenic Railroad will be running an essentially all-day trip to the summit of Bald Knob, the second highest point in the state, on both Saturday and Sunday. The Railroad will also run several shorter trips to Whitaker Station each day during the Fall Review weekend.

In addition to the rail excursions, tours of the National Radio Astronomy Observatory at nearby Greenbank will be available, as well as the usual potpourri of hiking, canoe-

ing, and nature walk outings.

While complete details and registration materials will appear in the September VOICE, the Fall Review Committee has asked that those who desire lodging in the old company houses let them know their wishes by September 5th. This is necessary because of the limited number of beds available and the State Park's requirement of a 30 day cancellation notice for houses that will not be needed by the Conservancy. The houses will accommodate either 6 or 10 persons each and include full kitchen and bath facilities including utensils, dishes, bedding and towels. More than one party will be assigned to a cabin.

While both commercial camping and primitive tent camping sites are available in the Cass area, other lodging possibilities are very limited, especially during the fall foliage season, so those who wish to reserve space in the restored company houses should return the coupon on this page to the Review Committee no later than September 5th. This year's Review, coinciding with the peak of the autumn coloration and being held in perhaps the most popular place in the state to view fall colors, should be one of the most enjoyable and heavily attended reviews in recent years.

FALL REVIEW LODGING RESERVATION

Yes, I wish to reserve space in one of the company houses as follows (\$10/person/night. Children under 10 free):

FRIDAY: _____ single beds; _____ double beds (2 people)

SATURDAY: _____ single beds; _____ double beds (2 people)

NAME: _____

ADDRESS: (street) _____

(city) _____

(state) _____

(zip) _____

(telephone) _____

Return this form along with a \$10 deposit to:

Mary Moore Rieffenberger

Rt. 1, Box 523

Elkins, WV 26241

(304) 636-4559

Make checks payable to the WVHC Fall Review.

The Greenbrier River Outstandingly Remarkable

(From the Greenbrier Wild and Scenic River Study, 1983)

The East Fork, West Fork and mainstem of the Greenbrier have "outstandingly remarkable" recreational value due to the great variety of recreational activity. Flat-water boating—including outdoor motor use, whitewater canoeing, primitive camping, developed campground camping, hiking, coldwater fishing—including stocked trout species and native brook trout, warm water fishing, hunting, photography, cross-country skiing, bicycling, horseback riding, picnicking, and spelunking are all existing recreational opportunities. This variety is complemented by several developed recreational facilities along or in close proximity to the Greenbrier that result in significant tourism. A large portion of the study area is within lands administered by the Monogahela National Forest attracting many visitors. Watoga State Park and Seneca State Forest along the Greenbrier River offer boating, swimming, camping, lodging and horseback riding. Droop Mountain Battlefield has picnicking and hiking facilities. Calvin Price State Forest offers opportunities for hunting, fishing and other dispersed recreation. The West Virginia Department of Natural Resources is developing a seventy-five mile hike and bike trail paralleling the Greenbrier River along the abandoned Chessie System Railroad right-of-way. The Cass Scenic Railroad, another State facility, climbs along the Greenbrier River to Bald

Knob, the second highest peak in the State. Tourist travel the original railroad grade in rebuilt log cars pulled by Shay Steam locomotives. Another unusual attraction along the Greenbrier corridor is the National Radio Observatory in Green Bank. The West Virginia State Fair is held annually at Fairlea, within one and one-half mile of the Greenbrier. Numerous limestone caverns and rock formations are located within the Greenbrier Valley for the spelunker and rock climber. This great variety and quantity of recreational resources is surrounded by the metropolitan centers of Columbus and Cincinnati, Ohio; Baltimore, Maryland; Pittsburgh, Pennsylvania; Richmond and Roanoke, Virginia; and Washington, D.C. The Greenbrier River is ideally located to help satisfy the growing recreational demand of the Middle Atlantic Region as it is within one day's drive to one-fourth of the population of the United States.

A great variety and abundance of wildlife and fish species inhabit the Greenbrier River Valley. This is not uncommon to similar rivers and streams in this area. There are, however, self-supporting populations of several species classified under the Endangered Species Act of 1973, which utilize the river corridor. These include the Indiana bat, Virginia big-eared bat, bald eagle, river otter, peregrine falcon, and osprey. The West Virginia Department of Natu-

ral Resources has listed several fish species inhabiting the Greenbrier River as rare. These species (the Eastern tongue-tied minnow, New River shiner, Kanawha minnow, and mountain red-belly dace) are not currently listed, but have been proposed for classification under the Endangered Species Act. This variety of mammals, birds and fish classified or having potential for classification under the Endangered Species Act identifies the Greenbrier corridor as "outstandingly remarkable" in fish and wildlife value.

Two unusual ecosystems occur along the Greenbrier River, Blister Swamp and the Greenbrier limestone belt. Blister Swamp is unusual in that it is the second most southern stand of naturally occurring balsam fir, *Abies balsamea*, in the United States. There are also several unusual plant species here that are rare or have a limited range. The Karst topography of the Greenbrier limestone belt contains numerous caverns and sinks. Beginning at the head of the West Fork, the belt outcropping parallels the west bank of the Greenbrier, becoming several miles wide in Greenbrier County. Wildlife almost unique to limestone caverns include the cave salamander (*Eurycea lucifuga*), Indiana Bat (*Myotis sodalis*) and the Virginia big-eared bat (*Plecotus Townsendii virginianus*). Other bat species, opossum, raccoon, fox and the wood rat also inhabit these caves.

Testimony (continued from page 2)

§509(c) of SMCRA allows OSM to approve an "alternate system [of bonding] that will achieve the objective and purposes of the bonding program." The alternate method approved for use in West Virginia is a "bond pool," or "Special Reclamation Fund." Under W. Va. Code §22A-3-11(g), this fund is maintained by a \$.01 per ton tax on mined coal which is imposed when the fund sinks below one million dollars, and released when the fund balance is two million. The major problem with this "bond pool" fund is that nothing in state law expressly requires the State to expend the fund to reclaim sites where the \$1,000 per acre flat bond has proved inadequate to prevent ongoing environmental harm.

The Commissioner of the West Virginia Department of Energy is "authorized" but not required to spend the money in the fund for such reclamation, and is allowed to spend such funds as are "reasonably necessary" to administer the state's regulatory program.

A review of expenditures from the West Virginia fund indicates that except for the DLM site (which the State now owns) the fund is not paying for treatment of AMD at sites where the \$1,000/acre bond was exhausted. However, funds determined "reasonably necessary" to administer the program continue to be spent including \$47,000 for furniture for the Commissioner's office. When questioned, the Commissioner's response was that "you can use these funds for any purpose." The OSM Charleston, West Virginia, field office staff acknowledged that it knew of past expenditures from this fund for other-than-reclamation

purposes.

OSM's approval of the West Virginia Special Reclamation Fund as an alternate method of bonding under §509(c) of the Act demonstrates the meaninglessness of the requirement that such an alternate system achieve the objectives and purposes of the bonding program.

III. Conclusion

The problems of inadequate bonding to assure long-term AMD treatment costs has been discussed as **one example** of ways in which SMCRA and Clean Water Act need to be re-examined with a view towards greater coordination and specificity on the surface water impacts of mining. Explicit recognition of treatment costs after mining as part of the cost of reclamation, elimination of alternate bonding pools or funds, and a more careful drawing of the line separating and connections between OSM and EPA authority under SMCRA and the Clean Water Act are all necessary. My remarks do not purport to specify a "solution" to this problem by specific language amendments to SMCRA. Rather, I hope that this brief description of the problem can alert you to the need for detailed examination of this problem as part of your overall evaluation of needed changes to the statute. Thank you for the opportunity to express these views.

John Purbaugh