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WASHINGTON

Wilderness Watch

The chances for wilderness in West Virginia may be linked not only to energy development but to the political future of Robert Byrd as well.

Staffers for U. S. Congressman Cleve Benedict of West Virginia's Second Congressional District said late last month that there'll be "no backtracking" by the congressman on the issue of wilderness in the Mountain State — despite the fact that the Reagan administration has left his figuratively "out in the cold" by opposing his so-called Cranberry bill.

That bill, slated for Congressional hearings in early February, proposes wilderness status for the Cranberry backcountry as well as Laurel Fork North and Laurel Fork South.

All three areas — comprising some 50,000 acres of land in the West Virginia highlands — were among five "RARE II" roadless areas which were intended to be studied for their wilderness potential. All five were located with the Monongahela National Forest, but after the Monongahela staff hashed their way through an environmental impact statement, only three areas were recommended for full wilderness status: the Cranberry and the two Laurel Forks.

Subsequently, Benedict's staff noted, the congressman was able to devise a compromise among the many interests and produce a bill which was introduced in mid-December.

"Cleve put a lot of time in on that," the staffer said, working not only with the Chessie System which owns the minerals beneath the Cranberry, but also with the Department of the Interior as well as environmental

groups, particularly the W. Va. Highlands Conservancy.

"We knew it would get picked apart," said the Benedict staffer, referring to the bill. "But we felt it was one of the best compromises" that could be reached.

Apparently just as the deals were being made final and the language of the wilderness bill drafted, U. S. Sens. James McClure and John Melcher sent a letter to their Senate colleagues in which they sought "your view on what ... wilderness designations might be appropriate for your state."

An attachment indicated that the Reagan administration was inclined to reject the idea that wilderness status should be granted to Cranberry or either of the Laurel Fork areas. As noted in the McClure-Melcher communique, the initial Forest Service recommendation was wilderness and the Carter administration had concurred.

Also included, however, was an indication that the recommendations had been "revised" by the Forest Service.

Not so, said Monongahela staffer Gil Churchill. He said for such a change in recommendation to occur, the current environmental impact statement would have to be revised and another series of public hearings held. He said he believed that Melcher and McClure were "betting" that non-wilderness would eventually be the designation recommended by the Reagan administration. Churchill pointed out that such a top-level

recommendation from the Reagan administration would take into account not only the Forest Service recom-

mendation but a wide variety of other issues as well.

Among those issues, Churchill

believes, may be the apparently increasing likelihood that large deposits (Please turn to page 6)

THE SHAVERS FORK

One More Round

A Conservancy subcommittee plots its course

By BARDWELL MONTGOMERY
WVHC Shavers Fork Subcommittee

Enviro Energy has requested permits from the U. S. Office of Surface Mining for six deep mines on the Monongahela National Forest in the Shaver's Fork watershed. The permit applications include a portal above the mouth of Red Run, about 2,000 feet from U. S. Rt. 250, the Glade Run mine above Forest Road 27 four miles from Gaudineer Tower and three mines on the main stem of Shaver's Fork between Crouch and Yokum runs.

Although the permit applications are in the initial stages of review and open to public comment, the mines in question are already in operation or under construction, having received state permits under an agreement with the Department of Natural Resources. The agreement would have limited Enviro to no more than six mines operating at once. However, the agreement expired this past summer, and the Office of Surface Mining (OSM) is presently the principal regulatory authority for mines on na-

tional forest land. Denial of federal permits could lead to a shut-down of present operations.

OSM conducted an extensive study of environmental impacts of the 25 or (Please turn to page 6)

PRESTON COUNTY

Strip Mines and Sludge

A Conservancy vice-president hopes for a turning point in solid waste regulation.

By PERRY BRYANT

Modern Earthline, after receiving thumbs down on a similar proposal in Maryland, is proposing to dump sludge from Baltimore's and Philadelphia's sewage treatment plants on surface mines in Preston County.

The Baltimore sludge is considered by some experts to be the most toxic in the country, containing high concentrations of heavy metals, organic chemicals, and PCBs — some of the most toxic and persistent chemicals known to man. In fact, Congress prohibited the manufacturing of any additional PCBs in 1976, and the proper

disposal of existing PCBs has been one of the biggest headaches faced by the U. S. Environmental Protection Agency. To date, EPA has authorized only a handful of landfills around the country to dispose of PCBs.

PCB-laden sludges are, however, exempt from hazardous waste disposal regulations established by both EPA and the W. Va. Department of Natural Resources.

Who will regulate the disposal of this sludge is a good question?

The Preston County Commission has taken the position that they can't stop the proposal. The state's health (Please turn to page 7)

West Virginia Highlands Conservancy
Mid-Winter Workshop

Jackson's Mill 4-H Camp
Weston, W. Va.

FRIDAY, Jan. 15, 1982

7:30 p.m. — Informal socializing for early arrivals.

SATURDAY, Jan. 16, 1981

9:30 a.m. — Registration, Jackson Lodge.

10 a.m. — Address: DAVID C. CALLAGHAN, Director, W. Va. Dept. of Natural Resources.

11 a.m. — Question and answer session.

12 noon — Lunch.

1:30 p.m. — Workshop: "Working with the State Legislature," led by Perry Bryant, WVHC vice president and environmental coordinator, WV-CAG.

3:30 p.m. — Annual meeting of West Virginia Highlands Conservancy (Election of board of directors, annual reports, etc.)

4:30 p.m. — Optional time: committee meetings, recreation, relaxation, etc.

6 p.m. — Dinner.

7:30 p.m. — Photography display: "Teons, Alaska, and More" by Sayre and Jean Rodman.

9 p.m. — Informal socializing: bring musical instruments, refreshments, etc.

SUNDAY, Jan. 17, 1981

8:15 a.m. — Board of directors meeting, everyone welcome.

12:15 p.m. — Lunch.

JACKSON'S MILL

Conservancy Convention

The mid-winter workshop and an election are slated.

David C. Callaghan, director of the W. Va. Department of Natural Resources, will be the featured speaker at the Highlands Conservancy's annual mid-winter workshop, Jan. 15-17 at Jacksons Mill.

Callaghan will speak at 10 a.m. Saturday, Jan. 16 and is expected to address a wide range of issues of concern to the environmental community including mining, water pollution, acid rain, and budget and regulatory changes.

Areas of West Virginia where these policies are implemented — and where the Conservancy has maintained an interest — include the Monongahela National Forest, Shavers Fork, the headwaters area of the Little Kanawha, Tygart and Buckhannon Rivers, Canaan Valley, and other parts of the highlands.

A lively question and answer period is scheduled to follow Callaghan's talk.

During the afternoon session that same day, Conservancy vice president and West Virginia Citizen Action Group environmental coordinator Perry Bryant will lead a workshop entitled "Working With the State Legislature."

Bryant has been an active public interest lobbyist in Charleston for several years, and will share some of what he has learned during that time with Conservancy members in anticipation of the upcoming 1982 legislative session.

All sessions — including the board of directors meeting — are open to all members and visitors. Reservations for overnight accommodations should be made directly with Jacksons Mill

State 4-H Camp, Weston, W. Va. (Phone 1-304-269-5100).

Nominations for five, two-year director-at-large seats on the board of (Please turn to page 2)



Dave Callaghan

BOARD OF DIRECTORS

President: Jeanetta Petras; P.O. Box 506, Fairmont, WV 26554 (534-5595)
Secretary: Lois Rosier; 633 West Virginia Ave.; Morgantown, WV 26505 (296-5158)
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WASHINGTON, D. C.: Stark Biddle; 2538 44th St. NW; Washington, D. C. 20007 (202-338-6295)

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(Terms Expire January of 1983)

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William P. McNeel; 1118 Second Ave.; Marlinton, WV 24954 (799-4369)
Steve Bradley; 724 Snider Street; Morgantown, WV 26505 (296-0451)
Kate Long; 101 Ruffner; Charleston, WV 25311 (343-1884)
Jim McNeeley; 100 Haven Drive; Princeton, WV 24740 (Home 425-1295 or 425-9838)

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(Terms Expire January of 1982)

Geoff Green; Rt. 5, Box 228-A; Morgantown, WV 26505 (296-0565)
Susan Racine; 430 Circleville Road; Beckley, WV 26505 (293-0298)
Sayre Rodman; 32 Crystal Drive; Oakmont, Pa. 15139 (412-828-8983)
Sara Corrie; 501 Ridgewood Road; Huntington, WV 25701 (523-2094)
Skip Deegans; 102 North Court St.; Lewisburg, WV 24901

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'ADOPT-AN-AREA' Committee: George Warrick; 1709 South Davis Ave.; Elkins, WV 26241 (636-5896)
ACID RAIN Committee: Don Gasper (924-6211)

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CANAAN VALLEY ALLIANCE: Steve Bradley; 724 Snider St., Morgantown, WV 26505 (296-0451)

VOICE EDITOR

Judy Frank, P.O. Box 1121, Elkins, WV 26241 (636-1622)

Convention

(Continued from page 1)

the W. Va. Highlands Conservancy must be submitted no later than Friday, Jan. 15, according to Larry George, chairman of the Conservancy's nominating committee. Each of the terms begins in January and expire in January of 1984.

Nominations may be submitted by both individual and organizational members of the Conservancy, George noted. The deadline coincides with the opening of the Conservancy's mid-winter workshop.

Members may nominate up to five individuals, including themselves, and must determine and indicate that they are willing to serve as a director-at-large. All nominees must presently be Conservancy members or submit a membership application prior to the certification of candidates by the nominating committee on Jan. 15, George noted.

The election will be held during the Conservancy's annual meeting on Saturday, Jan. 16, 1982 at Jackson's Mill 4-H Camp in Weston.

The annual meeting will be conducted as part of the Conservancy's mid-winter workshop.

All individual and organizational members may participate in the election by casting one vote for each candidate (approval system voting), with the five candidates receiving the largest number of votes being elected.

Ties will be broken by lot.

No individual may vote twice for one candidate, i.e., vote on behalf of both himself and an organizational member.

Nominations should be mailed to:

Larry W. George, Chairman
WVHC Nominating Committee
9 Crestridge Drive
Huntington, W. Va. 25705
1-304-736-1325

Purbaugh Nominated

Nominated for a slot on the board of directors has been W. Va. Legal Services attorney John Purbaugh. Nominated by the Conservancy's Charleston vice-president, Perry Bryant, Purbaugh writes:

"I live near Kenna in Jackson County and work as a lawyer for the W. Va. Legal Services Plan. I've been a Conservancy member for several years, but only in the last couple have I become personally active in environmental organizations. My recent work includes representation of the Upper West Fork River Watershed Association, acid water pollution cases caused by underground mining, landfills and hazardous wastes. My personal interests include cross-country skiing, backpacking, canoeing and auto mechanics.

"As a member of the Conservancy board, I would emphasize full participation in lobbying, rulemaking and public education as well as continuation of the Conservancy's aggressive guardianship of the highlands area of the state."

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Don't Miss
SF Gas Well Convocation - Jan. 7
Scenic Trails Meeting - Jan 8-10
Conservancy Workshop - Jan 15-17
Callaghan speaking - 10 a.m., Jan. 16
Callaghan answering - 11 a.m., Jan. 16
Elections - 3:30 p.m., Jan. 16
OSM Regs Comment Deadline - Feb. 1
Wilderness Hearings - early February
Allegheny Trail Work-Hike - June 19-26

MOVING?
ATTACH OLD LABEL HERE
New Address:
W. Va. Highlands Conservancy
P.O. Box 506
Fairmont, WV 26554

Join
THE W. VA. HIGHLANDS CONSERVANCY
Description of membership categories.
Individual membership:
Regular-\$10 from the rank and file who can give time and interest to the conservancy.
Associate-\$20 from those who can afford a small extra gift in addition to their interest in West Virginia's outdoors.
Sustaining-\$50 from those able and willing to give larger amounts necessary to underwrite our programs.
Senior-\$8 from conservationists over 65 years of age.
Organizational membership:
Regular-\$20 from a small organization anxious to help the Conservancy score conservation gains in the Mountain State.
Associate-\$30 from a larger organization whose membership approves the efforts of the Conservancy.
Sustaining-\$60 from a large national organization which appreciates the importance of a highlands area to the people of the eastern seaboard.
Membership category (see descriptions opposite)
Individual: \$10 Regular, \$20 Associate, \$50 Sustaining, \$8 Senior
Organizational: \$20 Regular, \$30 Associate, \$60 Sustaining
Name, Address, City, State, Zip, Organization you represent(if any)
Brief statement of present position, interest, or activities in conservation activities (optional)
Make checks payable to The West Virginia Highlands Conservancy.

CHARLESTON

People for Clean Air

The W. Va. Clean Air Coalition seeks to spread itself across the state and generate a fire-storm of protest.

By JOHN C. HEAVENER, Jr.
Executive Director of the
American Lung Association of W. Va.
and
LINDA COOPER ELKINTON
W. Va. Chapter of the
National Audubon Society

— Speakers for speakers' bureaus who can address business groups, garden clubs, senior citizens, health professionals and others in West Virginia to generate letters to Congress.

— People who can sit at card tables at town squares or other public gathering spots to distribute information and help their fellow citizens write to Congress.

— Phone tree captains, people willing to engage in public dramatizations, willing to open their homes to friends and neighbors for an evening dinner or party for information and fund-and-spirit raising ...

Please volunteer now. Write to the W. Va. Clean Air Coalition at 1324 Va. St. E., Charleston, WV 25301 or call 346-5891.

The Coalition's coordinator, Charlie Garlow of Charleston, already reports significant progress around the state — some of it as a result of the December visit to West Virginia by James Watt, the Secretary of the Interior.

An anti-Watt rally in Charleston attracted an estimated 400 people to a dollar-a-plate dinner that raised \$450 and was followed with a candlelight procession to the offices of Congressman Mick Staton — the legislator on whose behalf Watt had visited the state.

Garlow described media coverage of the event — as well as an earlier press conference on a host of environmental issues — as "excellent. The coverage did address itself to the important issues," he said, and he termed it a "major educational effort" with positive benefits not only for the Charleston area but around the

state as well. He also noted that a summary of the Wilderness Society's "Watt Book," a compendium of the environmental havoc the Interior Secretary has wrought, is available for three dollars from the Citizens Action Group (see address above).

The major effort now, he said, will be aimed at a state-wide letter-writing campaign (as outlined above

by Heavener and Elkinton). He said the major areas now covered included Charleston and Morgantown, plus Calhoun County, Beckley and some areas in the highlands. He said major efforts would be launched in the Wheeling area as well as the eastern panhandle.

In Washington, he said the major Congressional victory to date had

been the exclusion of cost-benefit analyses during the setting of air quality goals, while the major impending battle has to do with a relaxation of carbon monoxide limits as the automobile industry begins to retool. Garlow said that while Sen. Randolph had "voted well" to date, he believed he might "tend to vote to relax carbon monoxide standards."

The Clean Air Act, as you probably have heard, is under attack on the national level. It has been recently reported that the auto industry is pushing for quick action on the Act so they can retool to make changes — for the worse — in next year's models. Congresspeople, fearing the stain of a "dirty air" vote, also want the blood to be let early on, so that voters will forget by the November elections. This means an earlier vote than we expected.

We must act now to make sure the W. Va. delegation votes the way the vast majority of Mountaineers wants them to vote — for strong protection of the Clean Air Act. The next three to five months may well determine the quality of our air for years to come.

U. S. Sen. Jennings Randolph has been the best of our delegation. The others have been either straddling the fence or downright awful. We need to thank Sen. Randolph and forcefully remind the others where we stand.

But writing one letter isn't enough. Writing both Senators and your Congressman isn't enough, either. We need your help to mobilize tens of thousands of West Virginians. We need to deliver a fire-storm of protest to Washington, objecting to the proposed slaughter of the Clear Air laws which may well happen unless you act immediately.

We need:



Allegheny Gothic

Sporting two of the more common tools they've used in constructing the Allegheny Trail through the Mountain State's highlands for the past five years are son and father Urban, Ryan and Robert.

The duo — shown here in their official Allegheny Trail T-shirts — are looking forward to a June 19-26 work-hike sponsored by the W. Va. Scenic Trails Association. The work-hike is being scheduled to open up another section of the Allegheny Trail from Durbin to Cass in Pocahontas County. The Association's annual planning

meeting is set for Jan. 8-10 at Chestnut Ridge Regional Park just off State Route 48 near Morgantown.

The Allegheny Trail already includes an 80-mile stretch from Blackwater Falls to Durbin, plus a 100-mile stretch from Seneca State Forest to the state's border near Linfield where it connects with the world-famous Appalachian Trail. Yet to be scheduled is further work to extend the trail its full 280-mile length with a final link between Cass and the Seneca State Forest.

Rakes and shovels are the least of

the Urbans' tools: they also use implements such as the sandvic, the polaski, the hazelhole, the firerake, the viscious-looking brush hook — and even a six-foot-long pry bar.

Urban the elder is a college biology professor and chairman of his department, while his son is a 17-year-old high school student.

The \$5.50 T-shirts they're wearing are silk-screened by a sheltered workshop in the highlands and are available in all children's and adults' sizes — with the emblem at the front or back — from Fred Bird at 236 Terrace Ave., Elkins, WV 26241.

WASHINGTON

Rights Rollback

OSM regulations face changes.

By PERRY BRYANT
Proposed changes in federal surface mine regulations may significantly weaken citizen oversight of the industry.

Interior Secretary James Watt and James Harris, the director of the U. S. Office of Surface Mining, have proposed to eliminate the requirement that a citizen have the right to accompany a state inspector into a mine site when the inspection is a result of a citizen's request. However, citizens would still have the right to accompany a federal inspectors. Watt and Harris have also proposed that OSM respond to citizen complaints only after the state has been contacted. OSM would inspect the mine site only if the state refused to respond to the complaint.

Watt and Harris are also proposing to limit citizen access to records. The federal surface mining act clearly states that "copies of any records ... or information ... shall be made immediately available ... to residents in the areas of mining." Despite this clear mandate by Congress, Watt and Harris are proposing to allow states to keep records at a central location and mail requested information to interested persons. Thus, someone from the highlands who wanted to inspect a surface mine file would have to travel to Charleston during working hours or

request a copy of the file at 20 cents per page, a change that will clearly limit access by those persons who live outside the Charleston area.

Watt and Harris are also proposing to drop the requirement that states provide for citizen suits — despite the fact that federal law clearly mandates that citizen suits be allowed in federal court and clearly implies that Congress intended for citizen suits in state courts after a state has assumed primacy.

It is unclear at this point what effect these proposed changes, if adopted by OSM, would have on West Virginia's regulations. Currently, West Virginia's regulations have been enjoined by a federal court. The injunction is scheduled to be lifted by mid-February. It seems likely the DNR will review the state's regulations at that time in order to adopt some of the "positive" changes made in the federal regulations. Whether the DNR considers these rollbacks of citizen participation to be a "positive" change remains to be seen.

Comments on the proposed changes should be sent by Feb. 1 to OSM at South Interior Building, Room 153, 1951 Constitution Ave. NW, Washington, DC, 20240. Further information is available from the W. Va. Citizens Action Group at 1324 Va. St. E., Charleston, WV 25301 (346-5891).

CHARLESTON

Closing the Files

Access to information may be made more difficult.

By PERRY BRYANT
Two state agencies, the water resources board (WRB) and the division of water resources (DWR), have proposed regulations which will make it more difficult for citizens to receive information from these agencies. The changes would levy fees of 20 cents per page after 25 pages of copying and five dollars per hour for searching and locating records after the first half-hour.

"Of course, industry and their consultants will not have any difficulty paying these exorbitant prices," commented Highlands Conservancy board member Kate Long of Charleston. She is active in the W. Va. Citizens Action Group. "They'll have the ability to get as much information as they need. However, the proposed regulations, if adopted, will pose a significant barrier to citizens and public interest groups."

The proposed regulations also came under fire from another board member, Linda Elkinton of Morgantown. Mrs. Elkinton heads the W. Va. office of the National Audubon Society. "In today's world, information means power," she commented. "To deny citizens information is, in essence, to deny them the tools needed to affect decisions."

The regulations will hit hardest at those who live outside the state capital where the files are located. Also hard hit will be public interest groups who rely on large amounts of detailed information in order to inform the public about proposed decisions by the DWR and the WRB. These agencies make some of the most important and complex environmental decisions made by any state agency. For example, the DWR will begin to issue permits for hazardous waste disposal

facilities. The permit application can be expected to be hundreds of pages long. For a public interest group to receive a copy of a 200-page permit application would cost a minimum of \$35 — a cost which will clearly limit access to this vital information.

Two proposals would help solve the problem: first, documents on file could be made available for inspection upon request at the nearest of seven regional offices of the DWR; and, secondly, the DWR and the WRB could adopt public participation policies paralleling federal policies which provide that free copies be supplied to citizens and public interest groups with limited funds.

Persons interested in commenting on the proposed regulations should send their comments to the Water Resources Board at 1205 Greenbrier Street in Charleston, WV, 25311. No public hearings have been scheduled.

THE ALLEGHENIES' SLOPES

Saving the Salamander

Enviro Energy spends some dollars rescuing a rare species hemmed in by its environment and beset by man.

BY DR. THOMAS PAULEY

EDITOR'S NOTE: One of the world's few populations of a little salamander — a species that apparently defines 27 unique places in the world, all clustered together high up on the western slopes of the Alleghenies — was transplanted one warm summer night this year.

Gathered up in the dead of night from the rocks and rills and forest fauna that spring out of the mountainsides were 45 Cheat Mountain Salamanders. Each, without doubt, would have died as a result of the development of the first of what are expected to be 30 underground mines in the heart of the Monongahela National Forest, on the banks of the Shavers Fork of the Cheat River in Randolph County.

The mines, scheduled to carve millions of dollars worth of high grade "compliance steam" coal, are being developed on national forest lands by Enviro Energy, Inc., a sister company to the mineral owner, Mower Lumber Co.

Salamander Survey

One provision of the mining permit approved by the Office of Surface Mining (OSM) to Enviro Energy was to survey all proposed core-drilling sites, haul roads, and mine sites for the Cheat Mountain Salamander.

Dr. Thomas Pauley, chairman of the department of natural science at Salem College, was employed by Enviro during the summer of 1981 to examine these proposed areas. His report follows:

"I surveyed 28 proposed core-drilling sites and access roads, three proposed haul roads, and two proposed mine sites. I found the Cheat Mountain Salamander in four proposed access roads.

"I recommended that each road be re-routed around the salamander sites. In each case the new route was surveyed to assure that the area was free of the salamander. The salamander was not found in any of the proposed core-drilling sites or mine sites except Linan Number Three mine site on Shavers Mountain.

"Since the species has not been declared endangered by the U.S. Fish and Wildlife Service, it would probably have been difficult to prevent

the development of this mine site. After consultation with representatives of the West Virginia DNR, U.S. Forest Service, Office of Surface Mining, W.Va. Highlands Conservancy, and the Sierra Club, it was decided to attempt to transfer this population to a suitable habitat where the species was not found.

"A suitable habitat would be one that has the relative humidity, soil moisture, and soil temperature similar to that of known Cheat Mountain Salamander populations.

"After examining several areas, a site was selected. . . . Since the Cheat Mountain Salamander is nocturnal, careful systematic collections were made in the Linan site during nights as well as two days. A total of 45 individuals were removed during these collections and released on the night of June 25, 1981

"It is my intent to visit this area in the spring and fall of each year for the next five years in an attempt to ascertain the success of this transfer. In this regard, I submitted a grant proposal to Enviro Energy on Sept. 2, 1981 to sponsor this research endeavor, but as of this date have not had a reply.

"If this population transfer is successful, the data gathered will be invaluable to the transfer — and thus the protection — of non-game as well as game animals involved in future habitat disturbances and population transfers.

History

"The Cheat Mountain Salamander has been of great interest to biologists since it was described in 1938 by Dr. N.B. Green. This interest is due to its limited range and distribution, and what appears to be a rather precise

"In four study sites selected where the salamander occurs, the relative humidity was higher than in control sites or areas selected where the salamander does not occur. In addition, the Cheat Mountain Salamander was found in areas with higher relative humidity than the red-backed salamander, one of the two salamanders in competition with the Cheat Mountain Salamander for living space.

"Laboratory dehydration studies also indicated that the Cheat Mountain Salamander cannot withstand as great a loss of body water as the red-backed salamander. The CM Salamander is therefore a species restricted to more moist, terrestrial habitats.

"In 1948 Maurice Brooks defined the range of the Cheat Mountain Salamander to be 'from a point along the headwaters of Condon Run, near Bickle's Knob, Randolph County, to the southern end of the Cheat Range at Thorny Flat, Pocahontas County.'

"In 1971 Richard Highton of the University of Maryland found that the range of the CM Salamander extended in the northern area of the range described by Brooks, east to the high elevations of the Allegheny Front. During this study and two subsequent studies, I surveyed 181 sites above 3,400 feet throughout the Monongahela National Forest but found the CM Salamander in just 27.

"All 27 of these populations are disjunct; that is, they are separate or discontinuous.

"As a result of these surveys, the total range of this salamander has been determined to consist of an area 30 by 80 km, extending from McGowan Mountain to Dolly Sods, south to Spruce Mountain, southwest

altitudinal distribution for the CM Salamander. The greatest such distribution ranges from 4,520 to 4,020 feet, or a total of 500 feet.

"The question arises as to why the Cheat Mountain Salamander is restricted altitudinally. According to the US Department of Commerce, the annual average precipitation in the Allegheny Mountains is 50.9 inches, and 45.4 inches in the Allegheny Plateau. Based on information collected on the moisture requirements of the CM Salamander, it is not known if this precipitation difference is a major factor in limiting its altitudinal distribution.

"An alternative hypothesis that should be considered as a limiting factor is the competition for moist sites between the CM Salamander and the Mountain Dusky Salamander. It may be that the MD Salamander prevents the downhill expansion of the CM Salamander through competition for moist sites.

"Whatever the reasons, it is an established fact that the CM Salamander has a very restricted altitudinal distribution in addition to a restricted total distribution. The result of this limited altitudinal distribution is the 27 disjunct populations.

"The separation of animal populations puts any given species in a precarious position. Not only does this condition prevent the mixing of genetic material within the range, but if a population is removed through habitat destruction, the genetic material of the population is gone forever. . . ."

Populations Disturbed

"In addition to the discontinuous range, a second reason for the precarious status of the existence of the CM Salamander is the present distribution in most of the 27 known populations.

"These disturbances include old lumbering roads, foot trails, skiing slopes, Forest Service roads, and strip mines. When trees are removed the soil is exposed to the drying effects of the sun and wind. This will obviously decrease the soil moisture that is important to the survival of the CM Salamander.

"Considering what is now known about the limited range and distribution and environmental disturbances in or near many of these populations, the existence of this salamander may be in jeopardy.

So Who Cares?

"Why should Man be concerned about the survival of a single, lowly animal such as this?

"Aldo Leopold, the founder of wildlife management, compared the plants and animals of the forest with the vital organs of a living organism, and in doing so he emphasized that all plants and animals have a specific function in a forest — as vital organs do in an organism.

"Salamanders feed for the most part on insects of the forest floor, a very important factor in maintaining the ecological balance in the forest. The loss of a species — or even a single population — would remove a vital part or link in this ecological balance that has taken nature years to establish."

The salamander's survival is precarious partly because the known populations exist independently of each other.

habitat of red spruce forest above 3,500 feet in elevation.

"This interest received additional impetus in 1976 when the United States Forest Service contracted Dr. Jesse Clovis and me to make a detailed study of this species. Dr. Clovis was to study the vegetation types associated with this salamander, and I was to study the range, distribution, and habitat preference.

"The study for the Forest Service revealed several interesting facts about this salamander. While no correlation was shown between the occurrence of the salamander and the vegetation types, the elevation range was found to be true — but moisture is the most important environmental factor regulating the general and altitudinal distribution of the Cheat Mountain Salamander.

to Back Allegheny Mountain, and north to McGowan Mountain.

Competing Species

"A second salamander species that inhabits the same area and habitat as the CM Salamander is the Mountain Dusky Salamander. These two species have moisture requirements that are nearly the same, and are therefore most likely in competition for living space.

"There is a very interesting vertical or altitudinal distribution between both of these species and the red-backed salamander. In most of the CM Salamander populations, the red-backed and the CM Salamanders are sympatric (co-exist in the same area) while the Mountain Dusky is found at or near the low altitudinal limit of the CM Salamander.

"This results in a restricted

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servancy has also requested an extension of the comment period. The OSM study of proposed mining on the Shaver's Fork is available at the Charleston office as well as at the Monongahela National Forest headquarters in Elkins.

The Conservancy is also requesting that OSM schedule a conference to give interested parties an opportunity to discuss new data emerging from the permit review process. Such a conference would also trigger a deadline for rendering a decision on the permits. Federal regulations require that a decision be published within 60 days of the conference.

The Highlands Voice

CANAAN VALLEY

Canaan Contumely

The head of the W. Va. Office of the National Audubon Society deplores the state's lackadaisical attitude toward the destruction of trout fisheries in Canaan — and seeks contributions for a court suit.

By LINDA COOPER ELKINTON
W. Va. Office
National Audubon Society

Large, healthy brown trout and brook trout have long been popular and distinctive features of Canaan Valley's streams. They hatch from the eggs laid down by the big mommas wiggling through the ripples and around the rocks to the headwaters of the some of the smallest tributaries of the Blackwater in the southern end of the Valley. And they are stocked as fingerlings by the W. Va. Department of Natural Resources, then nourished to thrive in the Valley's cool, dark waters.

They are a thrill to see and provide the greatest sport known to the fisherman.

Over the years, the number of tributaries that provide habitat for these priceless creatures has dwindled dramatically, and, of the eight or so streams where they once lived, it is now the opinion of fishery professionals that only two or three remain today.

As a result of fast-paced second-home and condominium developments, these remaining ones are in serious jeopardy.

This past summer, the DNR's water resources division granted permission for the discharge of treated sewage water from one condominium development, Land of Canaan, Inc., into a tributary of Freeland Run, by far the best of these streams and the only remaining one where trout naturally spawn.

The sewage treatment plant of Land of Canaan accommodates the discharge from the initial 24, two-bedroom condo units in this development. It is located on Freeland Run Road, one-half mile north of the ski-slope. Construction has been completed on four of the units already. What is distressing about this development is that the particular treatment involved utilizes a chlorine system. This is most significant because of the well-established fact that trout can tolerate chlorine at only a very, very minute level — in fact, at levels that are only detectable with very sophisticated testing equipment. This kind of equipment is not available to the operators of the plant or to the DNR. The result is that the operation of this development could well eliminate the trout from Freeland Run and destroy this stream's capacity for natural trout reproduction.

In an effort to prevent the threats posed by Land of Canaan, and, on a broader scale, stop the permitting of chlorine treatment systems on trout streams statewide, the Kanawha Chapter of Trout Unlimited and the W. Va. Rivers Coalition in cooperation with the W. Va. Highlands Conservancy and an affected land-owner in the Valley appealed Land of Canaan's permit to the water resources board. A hearing on the appeal was held in mid-November. Of utmost importance to this entire matter is the fact that other kinds of treatment systems (in particular, ones that use ultraviolet light to treat the waste) are readily available, less expensive to operate and of no threat to trout and their invaluable habitat.

At the hearing, the developer of Land of Canaan claimed that he, too, was a trout fisherman and expressed

concern about the problems his development would cause for the stream. After some discussion, he agreed to seriously consider changing his system; an action that prompted the board to postpone the hearing until the details of such a change could be worked out.

Go ahead.

Unfortunately, since the hearing, there has not been the promised follow-up on these changes by the developer. Also, despite the developer's contention that the operation of the system would discharge chlorine far in excess of the state standards, and, concomitantly, above the level tolerable to trout, the water resources board agreed that he could go ahead and operate his system as is.

State water resources personnel seem concerned about the situation but hold that the discharge into the tributary will be insufficient to kill or harm fish in Freeland Run itself. Therefore, no plan exists for the state to monitor the situation in a special manner or to suspend the permit until arrangements for a non-chlorinated system (capable of being retrofitted to the present system) are made. Rather, in this case, water resources has left the burden of proof of damage to the fish and the citizenry.

That's case number one.

And number two ...

Just north of an adjacent to the Freeland Run drainage in Canaan is Yoakum Run, a drainage now owned virtually in its entirety by Allegheny Properties, Inc., developers of the Timberline resort. Allegheny Properties this summer filed a permit application with the DNR for a chlorine package treatment plant on Yoakum Run to accommodate the down-hill ski complex and 40-unit cluster-home development scheduled to open last fall. Their five-year plan includes construction of three double-chair lifts and artificial snow-making equipment for an expanded ski complex, a golf course and 1,000 condominium units on the side of Cabin Mountain — 200 a year for the next several years. With such a chlorinated system in the drainage of Yoakum, trout there as well as those further downstream are destined to the same fate as those in Freeland Run.

And then there's ...

Then there's the west side of the Valley.

At present, the waste from the five treatment plants of the Canaan Valley State Park is discharged into the Blackwater River. These systems utilize chlorine in treatment and, according to the DNR, are maintained in tip-top order by well-trained, on-site operators — key factors, we're told, to prevent malfunctioning and stream deterioration.

But then, as we stated previously, chlorine is lethal to trout at very low levels (.002 parts per million) which cannot be detected by equipment available to state inspectors.

Besides the Park discharges, Canterbury Inn's sewage treatment plant and lagoon also drain into the Blackwater in this area. Their system, although originally designed to accommodate more than the Inn itself, is presently in the process of being expanded.

Why? You guessed it. No less than seven buildings with seven, two-bedroom condo units each (49 in all) that will surround the Inn. Their permit for this expansion is pending with the DNR.

Things are
By no means
Standing
Still

As you can see, things are by no means standing still in Canaan Valley. Maintenance of water quality, as we have feared, is of upmost concern. The wildlife refuge will not halt development in the Valley, but it will insure that water quality and other resources are not sacrificed in the process to the extreme detriment of all involved.

Until the refuge is established, however, the efforts of interested individuals and organizations with very strained resources are all that's available to continue to prevent the valley's destruction.

The state DNR gives lip-service to protecting trout streams in this, the state's only proposed national wildlife refuge, but it's difficult to see a great deal of evidence of that protection in Canaan Valley these days.

One would think that when the law requires the state to protect its fish and waters that the burden of proof would rest with the body proposing a development rather than the floating bodies of the resource itself, the native trout.

But "you show me that damage is occurring (fish being killed) and we'll stop the discharge" is what we hear from the state. And, from the lawyer for the developer (fisherman or no): "What's a few fish? Why, we can go out and buy some to replace them!"

As things stand, we are faced with doing battle to protect the Valley case by case, stream by stream, permit by permit. For citizens to have to take on such time-consuming and expensive work when it is the statutory duty of our government is reprehensible.

And, for an appellate board to sustain a permit which they admit will violate their own water quality standards — as in this case — is surely inexcusable.

A court suit will no doubt be necessary to rectify the situation — the same kind of suit that has already

been heard and decided in Maryland where the use of chlorine treatment systems on trout streams is forbidden by law. And, even if we can find an attorney who can handle such a case at a reduced fee, where will the money come from?

Once again, we desperately need your help. Please send a contribution to help protect Canaan's native trout to the W. Va. Highlands Conservancy, P.O. Box 506, Fairmont, WV 26554. Earmark it for "Canaan Valley." It's tax deductible.

Sludge

(Continued from page 1)

department which regulates such disposal recently announced their intention to get out of the solid waste business. The reclamation and water resources divisions of the DNR may become responsible for regulating this sludge by default, although it is unclear what statutory authority the DNR has to regulate disposal of this sludge. Modern Earthline has yet to formally apply to the DNR for an application.

One state official raising serious concerns about the issue is Gus Douglass, the state's agriculture com-

missioner. (See below)

Some good may come of all this. Modern Earthline's proposal, combined with the weakness in the state's regulatory programs and the decision by the health department to get out of the solid waste business may force the legislature to take a long, hard look at the state's role in solid waste — including sludge disposal. A well-financed solid waste program with adequate regulations covering sludge disposal is long overdue in West Virginia.

This coming legislative session could well be the turning point for solid waste disposal in West Virginia.

Corner Post

by Gus R. Douglass

Reports keep coming to me of firms seeking permits to dump sludge, the end product of sewage disposal systems, in West Virginia. This is a revival of past unsuccessful efforts to haul municipal garbage from eastern cities to West Virginia for use in reclaiming strip mine land or as a soil conditioner or fertilizer substitute.

There's no doubt that dozens or even hundreds of possible contaminating chemicals, plus the derivatives created during sewage treatment, make U.S. sludge the most dangerous in the world. Among the known contaminants are PCBs, flame retardants, nitrosamines, pesticides of all kinds, polio and hepatitis viruses, nickel, cadmium, lead and several other metals. All of these and the dozens of others which have been detected are dangerous and doubly so if allowed to leach undetected into domestic water supplies. As one report says, "Sludge is an ungodly brew of countless synthetic and natural compounds of unknown structure, properties and toxicity." Each load is different, and the cost of analyzing each sample for 50 to 60 known, dangerous contaminants can be hundreds of dollars.

A clay soil will need upwards of 100 tons per acre of sludge to noticeably improve the physical structure, and I'm told it can only be applied one to two inches deep per week. This is impractical. Sludge is also a poor fertilizer, with an analysis of 3-1-1 or less. If all of the sludge in the nation were to be used, it would replace only 0.2% of the nitrogen fertilizer now being used each year or about 21,000 tons.

Another problem is that plants grown on the sludge take up the contaminants or are contaminated by splashing or vaporization. They, therefore, are dangerous to eat or to feed to stock. Stock is also contaminated by eating soil particles that cling to the roots of plants pulled from the soil during the feeding process. As some of the contaminants have been known to stay in the soil for years and years, we can only assume that sludge-treated land will be lost forever for agricultural and recreational purposes. Since land utilization may change with time, I believe that permanent maps should be prepared to indicate land treated with sludge so that future generations can avoid it until its safety has been proven.

I worry about the use of sludge on strip mines because the contaminants will ultimately leach into the surface and/or ground water. But, even if the sludge is reprocessed to be safe, doesn't the haulback method now in use in strip mine reclamation replace the topsoil? If so, further conditioning of the soil should not really be necessary; and since the nutrient value of sludge is nearly nonexistent, there is nothing to be gained...except another "specialized" landfill.

As proof of the danger involved in applying sludge to agricultural land, six major food companies, including Del Monte, the world's largest, refuse to process foods grown on sludge-treated lands. Also, the state of New York has now placed a two-year moratorium on the disposal of sludge on agricultural land. And, FDA has formulated a policy against the harvest of many foods from land treated with sludge. I don't believe anyone has yet addressed the problem of contamination of wildlife; but this, too, will be a problem.

Is there an alternative? Yes, sludge can be incinerated as is presently being done in over 300 cities across the country. Urban refuse, paper, etc., is used to dry and burn the sludge. This destroys the organic compounds and the disease organisms and converts most heavy metals to more insoluble forms. The ash can be buried in geologically acceptable landfills, or it can be mixed with other materials in construction projects.

Agriculture is our only essential industry. Why should we take a chance when alternatives are available? It may be the old story of short-term gain that breeds long-term tragedy. We need to approach the matter slowly. The cost of embargoing the use of sewage-contaminated land for agriculture will be very expensive because it will have to be monitored, but it may be the only way that the unprocessed sludge problem can be handled.

NEW YORK

The 'Doomsday Chic' Assault

A journal of international affairs interviews an Illinois economist who is debunking the doomsayers.

300 East 42nd Street
New York, N.Y. 10017

the inter dependent

The following article is reprinted — at the suggestion of the Conservancy's Washington vice-president Stark Bidle — from the *Interdependent*, a New York-based journal supported by the Overseas Development Council, the U. S. Association and the Experiment in International Living.

by Alan Tonelson

"Here I am sitting in central Illinois. I'll have to depend on you to tell me what impact my work is having in Washington."

Julian L. Simon's modesty is admirable but slightly suspect. For the University of Illinois economist has started policymakers and academics across the country by savaging the view that Spaceship Earth is rocketing toward a Malthusian crack-up.

In a series of articles and in a new book called *The Ultimate Resource*, Simon argues that the physical constraints widely cited as threats or even barriers to continued worldwide economic growth—finite supplies of fuel and non-fuel minerals, of overpopulation, of exhaustible soils, forests and fisheries, and of industrial pollution—are either illusory or surmountable.

Indeed, a small but increasingly influential band of researchers is arguing that the global-resources picture is brighter than commonly believed. Thus, University of Chicago demographers Donald Bogue and Amy Ong Tsui generated news and controversy in 1978 by announcing that the world population explosion had slowed markedly. Nick Eberstadt, a Harvard development economist, claims that UN and World Bank hunger estimates are wildly exaggerated and that they ignore great variations in different peoples' nutritional needs.

An Arlington, Virginia think tank, the Mellon Institute, has published a report contending that market forces alone can stabilize US energy demands and costs and can virtually eliminate imports by the turn of the century. And libertarians such as R.J. Smith, a Washington environmental consultant, argue that private ownership of resources can ensure the wise use of resources because entrepreneurs cannot exhaust their stocks without threatening future income.

After years of relative obscurity, Simon himself is now publishing in popular magazines such as *The Atlantic Monthly*. His book has drawn raves in *Business Week* and *Fortune*. He recently appeared on William F. Buckley's TV show, *Firing Line*. And the prestigious American Association for the Advancement of Science plans panels on *The Ultimate Resource* and on *Global 2000* at its annual meeting in Washington in January 1982.

Says Davidson Gwatkin, a demographer at Washington's Overseas Development Council, Simon's book "certainly is arousing a lot of attention in the population community.... My own sense is that it will be quite influential—for better or worse." And

according to John O'Sullivan, editor of the Heritage Foundation's quarterly *Policy Review*, "In the general conservative community, books like Simon's are generating excitement and interest. They will be reviewed and generate more articles and discussion."

Yet Lester R. Brown of Worldwatch Institute disagrees. The author of the newly published *Building a Sustainable Society*, who warns that current human demands are consuming Earth's "productive resource base," predicts that Simon's works "will be forgotten very quickly once they come under critical review."

However, the views of the "optimists" are likely to have a big political impact. As O'Sullivan notes, "Their arguments do tend to justify what the Reagan Administration is trying to do, and the intellectual underpinning they provide makes policymakers more confident."

Simon emphasizes that man's secret weapon is human ingenuity ("the ultimate resource"), which can "forever continue to respond to impending shortages and existing problems" and leave mankind "better off than before the problem arose." Contrary to his critics, Simon insists, "I am not saying that all is well now, and I do not promise that all will be rosy in the future.... What I *am* saying is that... the trends are positive, rather than negative."

And as he explained in an interview, he believes that many environmental activists are "guilty of excesses and exaggerations," which may guarantee that people "will lose hope, will lose will, will not use their talents to the fullest." A prime example of the "defeatism" Simon opposes is the *Global 2000 Report*, a weighty Gov-

ernment study that warns of a world "more crowded, more polluted, less stable ecologically, and more vulnerable to disruption" by the turn of the century.

Fears about the dangers of growth date to the dawn of the Industrial Revolution in the late 18th century. The Rev. Thomas Malthus won lasting fame by predicting that population will forever grow geometrically and thus will outstrip increases in food production, which is destined to grow arithmetically. (Less well-known are Malthus' later concerns that birth control would slow population growth too much.)

But amid the often stunning economic growth and scientific progress of the next century and a half, such scenarios seemed far-fetched. Indeed, the US Government's first comprehensive post-World War II study of the country's resource stocks, the 1952 Paley Commission report, found no danger that any key raw materials would run out during the next 25 years.

In 1963, economists Harold Barnett and Chandler Morse (now of Washington University in St. Louis and Cornell University in Ithaca, New York, respectively) came to even more encouraging conclusions: since the end of the Civil War, the real costs of extracting most raw materials had steadily fallen, thanks to the innovations and adjustments that all modern "efficiency seeking" economies devise.

Then, the economic ills, environmental threats, famines and resource bottlenecks of the early and mid-1970s undermined traditional faith in continued growth. Several gloomy studies

reinforced the new pessimism, notably *The Limits to Growth* (1972), the Club of Rome study that argued that the dangers of "overshoot and collapse" are built into expanding modern economies and urged that all such growth halt within 30 years.

Dissenting voices, such as London University economist Wilfred Beckerman and Hudson Institute futurologist Herman Kahn, struggled to be heard. But their words were drowned out—and seemingly belied—by a continuing flood of bad news.

Why are their views catching on now? Brown characterizes Simon's work as "a yearning for the kind of world that used to be but no longer is." But O'Sullivan ventures that many Americans are worried that environmentalist thinking has condemned the lower and middle classes to their current shares of an inadequate economic pie. He also points to a "revival in popularity of neoclassical economics—the supply side—which means of course a revival of interest in price questions."

Yet Simon is no mouthpiece for the Reagan Administration or for conservatism in general. He backs greater Government research and expenditure in many areas, such as nuclear fusion and farmland preservation. A reinvigorated space program, currently a prime target of Reagan budget-cutters, is also high on his priority list. In fact, the debate between resource optimists and pessimists is a debate over a surprisingly complex concept—resource availability.

At first glance, the problem seems purely physical—the finite Earth must have a finite endowment of resources. But some resources are renewable, such as trees and fish. Still others are recyclable. And neoclassical economists have long insisted that physical considerations are all but meaningless. Between man's imperfect knowledge of natural systems and mineral deposits and his ability to substitute abundant materials for scarce, they argue, resource availability varies with price and technological progress.

These complexities emerge in sharp relief in the assumptions and methods behind Simon's *The Ultimate Resource* and Brown's *Building a Sustainable Society*.

Time frames are a major bone of contention. As Simon explains, "It's a question of how long you want to look back. He [Brown] wants to look back ten years, I want to look back one hundred." But where Simon regards the "diminishing returns" and higher resource prices of the recent past as a short plateau in the middle of a long curve of increasing abundance and declining prices, Brown sees the 1970s as a turning point revealing the first signs of long-term decay. (Both claim that the latest data support their views.)

They differ, too, in evaluating the importance of human decisions on resource availability. Asked about declining per capita food production and soaring populations, which seem to be creating a "Malthusian trap" in black Africa, Simon responded, "The problem is, Africa has practically nothing to do with underlying resource issues. The problems are governmental and political." Even the Sahel, he contends, is "no more ecologically fragile than Israel." Brown grants the "human factor," but argues, "The important thing about soil erosion is that if it's not arrested, changing the other factors won't compensate."

And they clash in population policy—the locus of Simon's major heresy. Simon rejects the picture generally drawn of a dangerously crowded world struggling to provide for millions of new mouths every day. He not only argues (correctly, Brown believes) that population growth rates are slowing. He insists that population growth is ultimately beneficial. More people mean more producers as well as consumers. And since most humans produce more than they consume, living standards rise.

Even in poor third world countries, Simon maintains, higher population densities result in more efficient economies of scale, transportation networks able to distribute food during lean years and greater amounts of "human capital" capable of alleviating poverty and suffering. And he specifically disparages as "ridiculous" and "sterile" the notion that the planet has a "finite carrying capacity" that population levels will strain in the foreseeable future. ("I don't know about ten thousand years from now," he adds, arguing that the distant future is not worth worrying about.)

Brown, on the other hand, contends that "in focusing on growth rates, we miss a crucial consideration. From 1960 to 1976, world population grew from three to four billion. The fourth billion was very critical. It pushed human demand above sustainable yields" of farms, grasslands, forests and fisheries.

At bottom, Simon is challenging not only the substance of doomsaying, but its very wisdom. An endless flow of bad news, he believes, generates despair, not resolve. But could stressing the positive breed apathy and complacency? Simon answered, "I think there are enough problems in our communal and national lives to provide enough challenge for anyone." But such arguments are inherently less convincing than his charts, tables and statistics. For if the human mind is the ultimate resource, it is the ultimate mystery as well.

Alan Tonelson, Consulting Editor for *The Inter Dependent*, writes on foreign affairs from Washington.

