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# the Highlands Voice

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## FPC Staff Vetoes Davis Power Project

by Dave Elkinton

The burden of establishing the uniqueness and importance ecologically of the Canaan Valley has been consistently shared between the Conservancy and the Sierra Club in this proceeding. Working with a larger budget, the Sierra Club attorneys were able to document the natural features of the Canaan Valley, and show the destructive impact the proposed project would have. The Conservancy's brief incorporated by reference the brief of the Sierra Club since both groups shared this position and were in basic agreement.

The conclusion of the Sierra Club's brief provides a quick summary of the major environmental objections to this project.

"There is only one Canaan Valley. Applicants and the Commission can convert it from a unique and spectacular natural phenomenon - a biological treasure house - to just another huge, water container for power production and power boating. But is this wise when the power can be produced at other places or in other ways? And when virtually any depression on the surface of the earth can be dammed and plugged to create a lake? The Sierra Club believes the time has come for this Commission to exercise its overall planning function by rejecting this ill-conceived project and by offering to work with Applicants to develop the best program to achieve any needed peaking power, thus preserving for this and future generations the ecological diversity provided by the Canaan Valley."

### Spring Board Meeting

The West Virginia Highlands Conservancy will hold a Spring Board Meeting Saturday, April 12, at Jackson's Mill. Meeting time is 1.00 P.M.

Inquire on arrival at the Lodge for the location of the meeting. This meeting is for the afternoon only. Conservancy members and friends must make their own arrangements for meals and overnight lodging.



View of the northern Canaan Valley, looking east across to Cabin Mountain. All of the lowlands in picture would be flooded by lower reservoir of proposed Davis Power Project. [Photo by Helen McGinnis].

The staff of the Federal Power Commission has recommended that the Administrative Law Judge refuse a license for the proposed Davis Power Project in Canaan Valley. This unexpected recommendation is contained in the FPC Staff Counsel's Initial Brief filed February 28, 1975. In the major recommendation, the brief states, "In this instance, the losses of the natural resources occasioned by the Development of the proposed Davis Pumped Storage Project outweigh the resulting benefits." In addition, the brief finds various alternatives available, both other pumped storage sites and other methods of power generation, and concludes that these would be preferable if a license is issued.

"Considering only the economic and recreational advantages of the Proposed Davis Pumped Storage Project would lead one to conclude that this proposal is the best adapted plan for comprehensive development of the Blackwater River. Considering only these advantages though, does not provide sufficient basis for licensing of the proposed project."

Instead the FPC staff argues that the law requires the FPC to have regard of the overall public interest. "The public interest is only served, when consideration is given to all other benefits of the Blackwater River and the Canaan Valley. The Canaan Valley represents a unique natural ecosystem in West Virginia and some instances the significance of these resources extends to the Central Appalachian Region and even the United States. Because of this, the determination of the public interest requires the weighing of the losses to these resources against the benefits derived from the development of the proposed project."

The Davis Power Project, proposed by three operating companies of the Allegheny Power System, Monongahula, Potomac Edison, and West Penn, was first submitted to the FPC for license in June, 1970. Since that time increasing opposition has emerged, primarily from environmentalists, including the West Virginia Highlands Conservancy, Sierra Club, and others. Hearings were held during the Spring of 1974 which produced a series of surprises. The U.S. Department of Interior, citing a study by the Bureau of

Sports Fisheries and Wildlife in cooperation with the West Virginia Department of Natural Resources Wildlife Division, recommended that Jair Kaplan, Administrative Law Judge, deny the license request. In addition, five wildlife experts in the West Virginia Wildlife Resources Division appeared under subpoena because the DNR Director Ira Latimer, had refused to allow them to appear voluntarily. Among them were the Division Chief, two Assistant Chiefs and Highlands Conservancy Past President, Joe Rieffenberger. (See *Highlands Voice*, Vol. 6, Nos. 5 & 6).

Further study was required by Judge Kaplan during the Fall because of serious questions as to the geological problems of Canaan Valley. Although it was initially felt that perhaps the Valley might not hold the proposed 7,000 acre lake, recent evidence has discounted that problem.

Judge Kaplan is expected to reach his decision late this Spring. The members of the Federal Power Commission would then make the final decision.

While the FPC Staff brief was perhaps the most significant document yet submitted in opposition to the project, other briefs were filed at the same time by all parties. The West Virginia Highlands Conservancy, represented by Ray E. Ratliff, of Kaufman and Ratliff of Charleston, argued that other alternatives exist to the proposed project which would either save Canaan Valley's unique ecosystem or at worst only destroy a small portion. This latter alternative would involve a dam on the Glade Run of Blackwater River, necessitating a lake of 785 acres instead of 7,000 acres.

In its conclusion the Conservancy's brief stated that "because the Davis Project is not the best alternative, or combination of alternatives, no license should be issued. Further, Intervenor wish to make it very clear that they do not necessarily favor the licensing of a facility at the Glade Run site, but rather Intervenor have merely taken the opportunity to show that the record clearly discloses that this alternative site, among others, would on its face be environmentally less destructive and, in light of wildlife migration requirements, could well be cheaper."





## Washington Report on Corridor H

# Overlook

By Bob Burrell

Through the efforts of Rafe Pomerance of Friends of the Earth, two meetings were set up in Washington on Wednesday March 5 concerning developments of Corridor H on Shavers Fork and the Bowden Fish Hatchery with an idea towards getting the construction stopped and the highway rerouted from Elkins north to Parsons, etc.

Making the trip were Fred Hyde of Fairmont Trout Unlimited, Geoff Green - professional civil engineer, Lowell Markey - a community development planner from Potomac State, and myself. We were joined at the first meeting by Charles Reed of the Tucker County Planning Board (apparently gotten there by the Izaak Walton League). We met with Phil Cummins and Barry Meyer, 2 of the Senate Public Works Committee most influential lawyers. Also present were several officials from the Appalachian Regional Commission, one of whom was important enough that no project gets an O.K. without his signature. Many of the men were personally familiar with the area from the outdoorsman's point of view.

We presented an overview of the case which drew some spectacular comments of agreement, but what really impressed all present was the brilliant presentation and study prepared by Geoff and Lowell. Dave Elkinton some time ago had encouraged these fellows to make a social and economic impact study of Corridor H and compare it with a similar study of the alternate proposal (north via Parsons). Although these fellows had almost finished their study when notified of the meeting, they had not collated the material, analyzed it completely, nor even had it typed out and collated. But then they did it essentially a weekend! And it was not a superficial, sloppy job by any means. When they received a sharp question from the lawyers, our gang had the answers and one could see that the questioner was greatly impressed.

Sample comments from Public Works

officials - "they can't do that. That is not supposed to happen. We don't need these problems and there is no excuse for them to happen. That country is gold in there and it shouldn't be messed up." It was one meeting I attended without once being challenged either on fact or interpretation.

We learned that the Public Works people and the ARC have the power to terminate the entire project at Wymer. If news of this is made on the state level soon enough, then perhaps the state will immediately begin making plans for considering the northern alternative more seriously. They do not have the power to interrupt the present routing unless significant case is made of environmental harm. DOH does have to make an environmental impact statement from Bowden to Wymer and no one, unless he is a fool, can say with certainty that no harm will come to the North Spring. The question remains, should all highway construction going on now (Elkins bypass, from Elkins to Bowden, etc) be stopped now to avoid wasting any more money?

When we suggested that the highway be stopped and pulled out with a rerouting north to Parsons, nobody batted an eye at this or threw up their hands as I had expected. On the contrary, they talked about this as a viable alternative. They were impressed that state and federal officials from other agencies were talking this way on their own.

Commissioner Ritchie was supposed to be there but was detained due to testifying in the House. We will all have to meet again with him. Something we have been trying to do for 4 years.

At the conclusion of the meeting, Senator Randolph came in and made a few general remarks. He agreed that there were problems and was pleased that we had made progress at the meeting. Chief council Barry Meyer praised our efforts to the boss and seemed genuinely concerned and upset about the status of things.

We then had a second meeting with an official from the Department of Transportation and with a representative from the President's Council on Environmental Quality. We explored ways in which these groups could help us and they offered their opinions as to how things would probably go. Several courses of action were outlined and agreed upon. Both men felt on the basis of our brief re-presentation, that things were in a serious matter, but they felt that knowing the slow, ponderous way in which government moves, we may need to seek injunctive relief, before more harm is done. At the present there is not much going on in the Bowden vicinity except for bridge construction, however siltation following a rain is very heavy.

A significant part of the discussion centered upon why the Fish and Wildlife Service had not been more vocal about protesting the interference with the Hatchery operations. We detailed our repeated efforts at trying to contact administrators in this

service and of our repeated failures in trying to establish meaningful communications. The officials agreed to take the case to Asst. Secy of the Interior Nathaniel Reed for more information and action.

In summary, the 10 hour round trip drive was constructively productive. We did not go there with a negative view, but rather suggestions for a sound positive alternative and this alternative was well documented. There was no emotion (if any was expressed, it was on the part of the Public Works Councilors) and we dealt rationally with the facts and the data. *Oustanding credit must go to Lowell and Geoff for their exceptional efforts. We in the Highlands Conservancy have many excellent human resources, but none of us have ever performed as well on a critical issue as this. We are growing and we are maturing. Each presentation we make is better than the last. By such action, we deeply hope we do not have to seek injunctive relief (no decision on this will be discussed until after we have had a chance to meet with Mr. Ritchie and the Public Works councilors again), but if we do, this kind of effort will certainly be exceedingly valuable.*

## North Pole Mail Misdirected

Joe Rieffenberger, former President of the Conservancy, recently received a strange letter, postmarked Charleston, but bearing no return address. The letter read as follows:

Joe Rieffenberger  
Rt. 1, Box 252  
Elkins, WV 26241

Dear Sir,

I believe the attached letter is for you.

Your truly,  
Scrooge

Attached to this peculiar epistle was the following letter:

1308 Standard Oil Building  
501 St. Paul Street  
Baltimore, Maryland

January 29, 1975

Santa Claus  
Room 322  
1800 Washington St., SE  
Charleston, West Virginia 25303

Gentlemen:

I wish to decline receiving the seasons greetings referred to in a recent issue of the Highland's Conservancy Newspaper.

Very truly yours,  
Leonard J. Kerpeiman

Sorry, Santa, the Pony Express is not what it used to be.

## CONSERVANCY OFFICERS

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by Ron Hardway

[Speak Out for the Cranberry Back Country]

Coal has not yet reached the value per ounce of gold, but you would never know it by hanging around the Cranberry Back Country these days. Remember the Middle Fork Trail, Rt. 108? It used to be a pleasant, wide, grass covered track along the Middle Fork of Williams which led one all the way from Three Forks to Black Mountain. It still goes in the same direction, but it's suffering today from a terrible case of environmental acne.

The Mid-Allegheny Corporation, those wonderful folks who used to threaten weekly to wreak havoc upon the CBC, has finally made good on its threat. No more trout ponds behind the slag piles. Mid-Allegheny is playing rough.

What Mid-Allegheny claims to be doing in the CBC is core drilling for coal. They have decided that it is their turn to try to guess how much coal is under the Back Country. To make their guess Mid-Allegheny has driven their heavy trucks onto the Middle Fork Trail as far as Laurelly Branch. At the point they have plowed across the Middle Fork itself and cut a new road over an ancient railroad grade along Laurelly Branch to the top of the mountain where runs the North-South Trail, #688. God knows where they are planning to go from there. We have been afraid to go see.

All of this core drilling activity is a bit peculiar in light of a recent announcement from Charleston's Congressman, John Slack. Two years ago Congressman Slack succeeded in bleeding \$600,000 out of his colleagues to finance a core drilling study within the CBC. Slack's study was carried out under the direction of the U.S. Forest Service,

legal stewards of the surface of the CBC. Last month Slack's study was released. The core drilling company had investigated 289 core holes, some of which were old drillings, most of which were new drillings. They concluded that there are 133 million tons of recoverable coal under the CBC, 5% of which is strippable, and which is worth, on today's market, \$125,685,000. According to Congressman Slack the purpose of his core drilling study is for the Forest Service to use in determining where mineral rights should be acquired by the U.S. Government.

What purpose, then, does the presently active and destructive Mid-Allegheny core drilling serve? A quick check of the old geological reports for Pocahontas County reveals the answer. According to the 1929 report the Cranberry area is underlain by 248 million tons of coal, almost twice what the Forest Service study revealed. Somewhere underneath the Cranberry Back Country the Mid-Allegheny Corporation must locate an additional 115 million tons of coal, or the company is going to take a severe financial setback.

Even more interesting is the price Mid-Allegheny is going to try to get for whatever coal they find. The U.S. Government bought the coal under the "Highland Scenic Highway" around 1965 for \$50 per acre, or about 1/2 cent per ton. We are aware that the value of coal in the ground has risen considerably everywhere

except in County Assessor's tax books during the last couple of years. But consider how astronomical the increase must be to even approach the market value of the coal discovered by Slack's Survey? For the sake of all the starving wives and children of Mid-Allegheny hirelings we hope the company has not overreached itself on the basis of its CBS coal reserve. If so, a lot of people are in a lot of trouble.

So is the Cranberry Back Country in a lot of trouble. Mid-Allegheny has got to come up with more coal than Slack's Survey did. To do that they must core drill, core drill and core drill until they strike water or hell, whichever comes first. The Back Country is going to suffer for it. Already Rt. 108 is ruined and unusable for the upcoming hiking season. The Middle Fork is sometimes muddy, and an occasional patch of oil comes slinking down it's rocky course. The Laurelly Branch Trail is gone for the next several years. We fear similar damage has been done to the North-South Trail and Rt. 76 on the North Fork of Cranberry. There is litter scattered hither and yon along Rt.108, litter which was not there this time last year, nor even last August. It is there now, rusting away in the mud or flapping from a laurel bush.

What can we do?

Go out and look at the Cranberry Back Country. Listen. Is it the sound of a pheasant drumming, or is it a truck grumbling along Middle Fork? Live in the CBC for a weekend or a week. Catch a trout. Fry it over a campfire and eat it. Find dead trout floating upside down. Cut it open and look for mud inside. Dig some ramps, cook them and eat them. Catalogue all the flowers, birds and trees in the area. Catalogue all the beer cans, soft drink cans and candy wrappers in the area. Take the coldest and most refreshing swim of your life in the Middle Fork. Bust your ass trying to jump across the stream and landing on a rock covered with oil. Sit under a hemlock in the evening and listen to the owls. Sit under a hemlock at noon and feel the ground shake. Lie down at the head of Hell-for-Certain Branch, and realize you are in Heaven-for-Sure, but that Hell-for-Certain is just around the corner. Fall in love. Get damned mad.

Now that one has experienced the Cranberry Back Country, start telling others about it. Write letters to those who hold the power of life or death over Cranberry and tell them what you have felt and seen. Tell it so plainly that there can be no misunderstanding of what you saw and felt. Tell it politely, but tell it firmly. Tell it to your Congressman and Senators. Tell it to the Secretary of the Interior, the Chief of the U.S. Forest Service, the Supervisor of the Monongahela National Forest and the Gauley District Ranger. Tell it to the Mid-Allegheny Corporation, local newspapers and *The Highlands Voice*. Tell it to friends and strangers. Accept no substitutes. If the Cranberry Back Country is to be saved for the American public, the American public must do the saving.

We are the American public.



25 February, 1975

Okinawa  
March 4, 1975

Editor  
The Highlands Voice  
206 Union Street  
Webster Springs, West Virginia 26288

Dear Sir:

As a footnote to Jane S. Henley's article, "Regulations of Throwaways Essential," I just read in *Organic Gardening and Farming* (March 1975, p. 6) that the Maryland State Council of Economic Advisers on Mandatory Deposit Legislation for Beer and Soft Drink Containers reveals that "the net effect of a mandatory deposit law in the State of Maryland would be an increase in employment in these industries (distribution and retailing of beverage containers) of about 1500 persons. Economist Ted Scheinman points out in the study that additionally energy savings equivalent to 215,000 gallons of gas a day would be achieved by the Mandatory Deposit Legislation.

Sincerely Yours,  
W.E. Deegan  
Meadow Bluff, WV 24888

Dear Ron,

Thought you might be interested in the response I got from Mr. Daniel Snyder of EPA III.

I wrote a letter to him urging the strengthening of strip mine water pollution permits. Due to my location in Okinawa, Japan for the past year my letter was not to first hand or update.

But having read Ed Light's letter on page 6 of the December "Voice" I was encouraged to write.

The response was a letter from Roslyn H. Brewer, Public Information Specialist, Public Affairs Division. It expressed appreciation for my concern, said that, "as you will see, effluent limitations are established and are being enforced," and said that if I know of any specific violators to report them to the State Water Pollution Control Agency.

They also included a copy of "a citizen's guide to Clean Water" prepared by the Izaak Walton League.

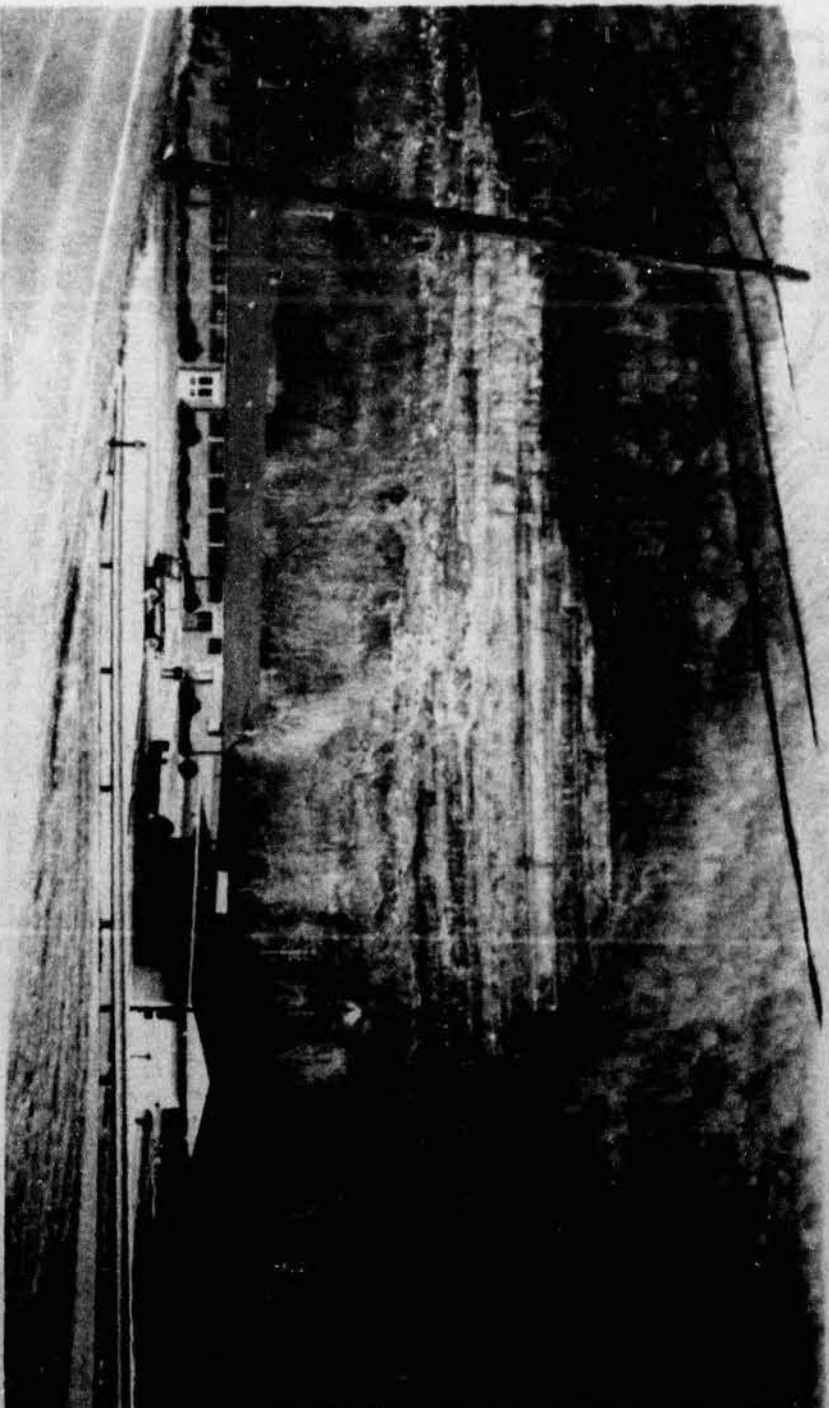
Keep up the good work - I'll be back in the states in a few months - hope to be of more help then.

Sincerely,  
Bruce A. Randall



# The Look of Bowden

Photos and Text by Bob Barrell

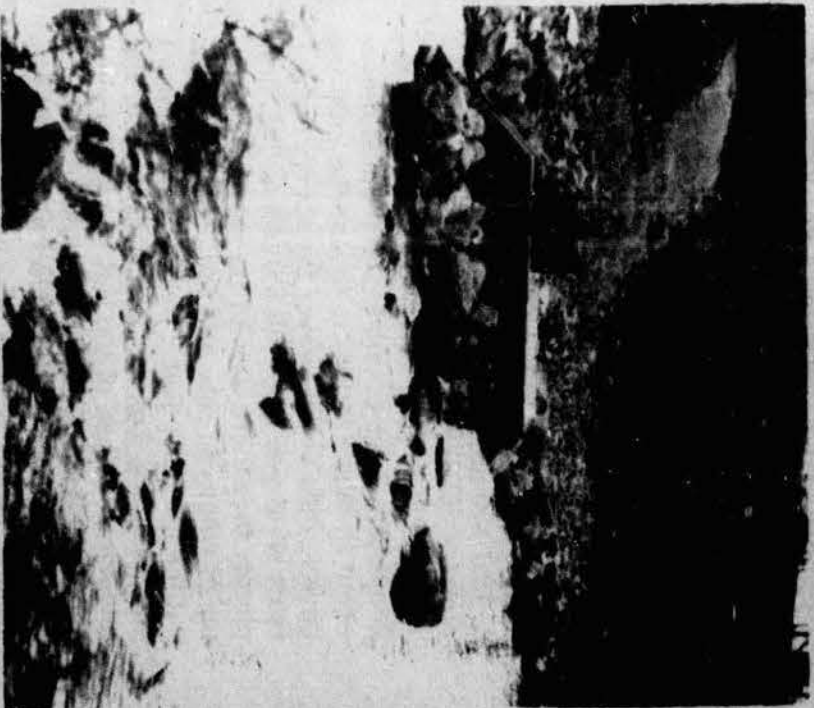


Site of large highway cut right behind Bowden Fish Hatchery. Drilling and blasting here resulted in complete cessation of flow from one of the Hatchery's two warm weather water sources, the South Spring. Flow has since partially resumed; the water is milky with silt. For those who enjoy the vistas offered by traveling east of Elkins on U.S. 33, consider what ugly gashes like this will do to the rugged terrain and how much scenery one will be able to see from the highway.

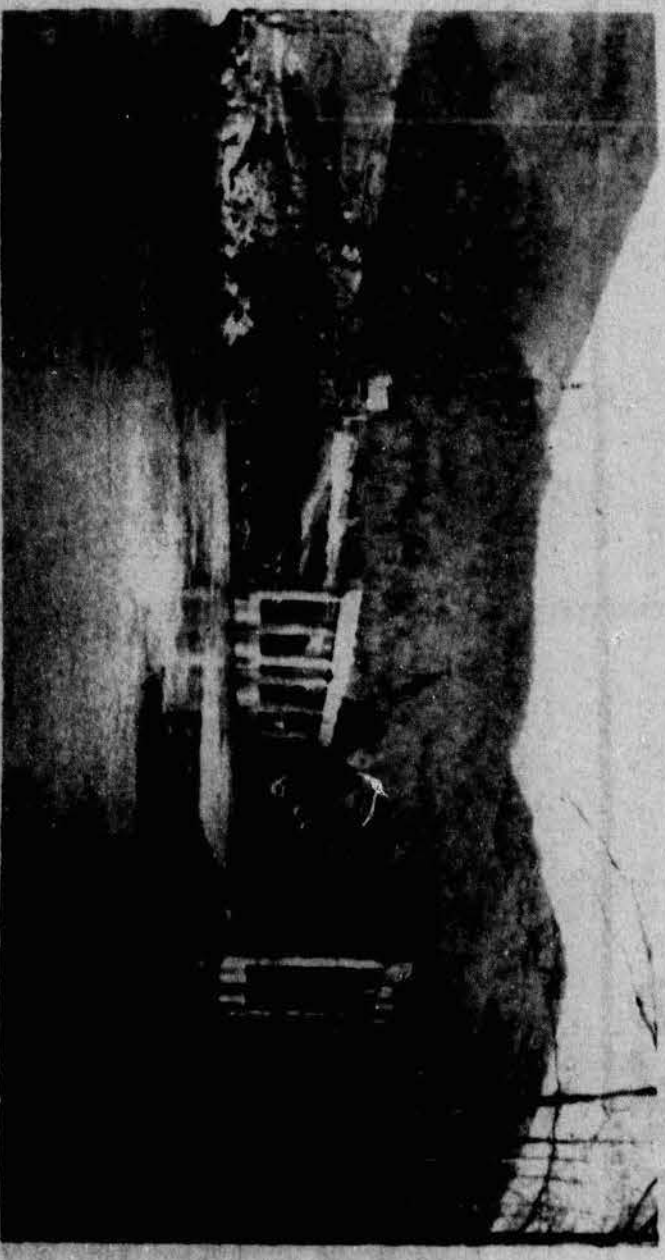


Once highway construction proceeds beyond the bridge, heavy construction will almost certainly interrupt or even finish the sources of water for the remaining North Spring seen here with Shavers Fork and the Bowden Bridge visible in the background. If this Spring is damaged, it will be the end of the Bowden Federal Fish Hatchery.

Left: As one walks upstream from Bowden, one encounters a large low water bridge that has been bulldozed right into the river. High water has breached this combination dam-culvert-bridge at least six times. Each time DOH bulldozers have shoved more debris into the river to make the construction bridge. The picture shows the bridge breached on Feb. 22.



Further upstream is this crude boulder dam built by the DOH to form a pool for a new intake (seen in background) that conducts river water to the Hatchery. The cost of the intake and line are added costs to the highway. The inlet seen here is upstream of construction, thus the heavy attrition, but the intake part is too high when the stream is low thus adding to the Hatchery's problems.



Just above the low water bridge is this new, permanent bridge being constructed to bring Corridor H back to the U.S. 33 side of the river. The contract for this bridge was let very quickly and local opposition reasons that this was because the highway planners have feared that the highway would get into trouble and that they would at least be able to use the parts of this bridge already constructed. The sources of the yet unbridged North Spring are believed to be in the area of the derrick. Just upstream of the abutments may be seen another attack on the river, a fund used by construction vehicles to get material from the RR tracks on to the vicinity of the derrick.



A DOH sign just off U.S. 33 on the Bowden Road gives a portent of the quality of work to come. Corridor H will bring much traffic to Shavers Fork.



# The Freezing Dinosaur or The Crazyness of American Electric Power

by Nick Zvegintzev

The winter of 1974 was a time when every sane inhabitant of this space ship earth realized that the rules for the use and distribution of energy were permanently changed. One warm note in a cold time was to see how many sane people there are, how many human beings will accept the inevitable with creative courage. But there were chilling notes too, crazy responses calling for more of the policies that got us into these troubles. One of the craziest responses was from American Electric Power (AEP), which is the world's largest private utility and a major industry in our area, consuming over 10% of the coal delivered in West Virginia, Virginia, Ohio, Indiana, and Kentucky.

AEP's craziness took many forms. The most obvious was to spend \$3.3 million of its customers money on 34 advertisements seen by roughly half the population of the USA. Not only was it crazy to spend money on advertisements when your product is supposed to be electric power, but the content of the ads ranged from high comedy (the suggestion that you can avoid polluting the air if you send your smoke up VERY TALL CHIMNEYS - October 25) to low farce (including this fine poem from November 7:

There once was a man from Rhode I,  
Who didn't quite see eye to eye  
With the experts on scrubbers.  
So he donned only rubbers,  
Then waded through gook to his tie.]

When challenged by Russell W. Peterson, Chairman of the Council on Environmental Quality (a U.S. Governmental agency), the Chairman of the Board of Directors of AEP showed a crazy ignorance of the direction of politics by writing to then President Nixon as follows:

"We respectfully suggest that you fully investigate both the official and clandestine activities of Mr. Peterson in the conduct of his office."

The crazy things AEP said were good for a laugh, but the crazy things they did were dangerous and expensive. Though they operate no further west than Michigan they made agreements to buy coal or coal properties in Wyoming, Montana, Colorado, and Utah, and to acquire 2000 railroad cars and 248 barges to transport it to and up the Ohio and Mississippi. Some of these coal properties are owned by the U.S. government and are embargoed from use under environmental restrictions. It certainly takes craziness of a grand order to prepare to expend precious imported oil on the transport of a poor quality of coal that you are not permitted to mine 1500 miles in order to burn it on the slopes of a mountain range that is veined with some of the world's cleanest and hottest coal.

But like all crazies AEP has internal reasons for what it does. The key reason is that the management of AEP does not regard its business as the supply of electricity, still less the solution of the energy problem for the good of mankind—its business is to make money, and any activity however fiddling is acceptable if the public can be persuaded to pay for it. Two fiddles of this kind were discovered in 1974 by the West Virginia Public Service Commission under the prodding of Charleston's Citizens for Environmental Protection. In September they discovered that Appalachian Power, a subsidiary of AEP, has been charging its customers under the "fuel adjustment clause" by pricing all the coal it produces itself as if it were bought from its most expensive external suppliers. In October they discovered that Appalachian Power was shipping West Virginia coal to plants operated by AEP in

Indiana while bringing high sulfur coal from Tennessee and Kentucky to burn in West Virginia (this is no problem to AEP if the customers pay cost plus profit for the shipping.)

The craziness of AEP is particularly our problem because they are close to us. To rail at craziness in distance places is no way to heal the world. As the sign says in the bunk-house at camp: "EACH CAMPER IS RESPONSIBLE TO POLICE HIS OWN AREA." AEP is part of our area.

There is no quick institutional change to curb AEP's craziness. Anti-trust legislation will not necessarily halt AEP's dumb progress to being our biggest bankrupt utility like Penn Central is our biggest bankrupt railroad. Nor will nationalization cure AEP any more than Amtrak brought back passenger trains.

The key is for us to keep clear what are the true goals of the supply and use of electric power - to satisfy human needs with the least depletion of the world's capital. AEP is a strong organization. We need its strength to do the big tasks that need to be done. Our aim is not to pit our strength against theirs, but to use our intelligence to prod and goad it into the right path, like the little Indian boy who rides the mighty elephant.

AEP generates 93% of its power from coal, and its miserable performance in 1974 suggests a "carboniferous" predecessor, the freezing dinosaur. To the end of the coal age the world became colder. The mammals had the "better ideas"—small size, central heating in the form of warm blood, insulation in the form of hair. Nevertheless the last dinosaur surely went into his death agony, paralysed by the cold, frozen, frustrated, and defiant, still bellowing: "More size! More heat! Taller chimneys!"

## The Lessons of Climatic History

by Reid A. Bryson

By late summer of 1974, the newspapers in the United States were carrying a new story. During the spring there had been many articles about the delays of crop planting in the Midwest, brought about by ceaseless rains. Even after large areas had been planted, many fields were washed out and in others the water stood so long that the plants were killed. But by late summer the story was of drought. When the rains finally stopped in June, they did not return, and the late, spotty stands were blasted by heat and withered by drought. High technology was not a match for the elements.

The drought did not start in the "corn belt" of the midwest. While the midwest was being flooded during the spring, the southwest was parched. In typical drought fashion, that drought then spread to larger and larger areas, to include the cornbelt by mid-summer. What had started out to be an all-out effort to replenish the depleted grain reserves had become a disaster. Was it a local phenomenon, limited to the United States, or was it part of a larger pattern of change from the especially good growing seasons of the previous decades? It appears that it is the latter. There is a growing consensus among climatologists that the world pattern of climate has been changing. The overriding question of today is whether that change will continue, for the complex of worldwide climatic problems that has appeared, especially since 1971, is totally incompatible with the high population growth rate of the world.

Climatic research has not yet produced a deterministic, predictive model of world climate with which we can state what the character of the coming decades will be - or even what next year will be like. However, there are lessons that can be learned from the study of climatic history. Since about 1945:

- The average temperature of the northern hemisphere has declined nearly as much as it previously rose.
- The average temperature of Iceland has declined to its former level.
- Since 1951, the surface temperature of the whole North Atlantic has declined about one-eighth of the difference between recent temperatures and full glacial temperature conditions, and the Gulf Stream has shifted southward.
- The growing season in England has diminished by two weeks.
- The frequency of droughts in northwest India has begun to increase.
- The monsoon has gradually retreated equatorward in West Africa, culminating in seven years of famine.
- Midsummer frosts returned to the upper midwestern United States.

- The monsoon has withdrawn southward in Japan.
- The Canadian Arctic has had severe ice conditions compared to the past few decades.
- The snow and ice cover of the northern hemisphere suddenly increased by about 13 percent in the winter of 1971 - 1972, and has remained at the increased level.

The lessons of history are being repeated.

The facts of past environmental history, especially if we restrict our attention to the last 10 millenia, teach us some non-theoretical lessons. Certainly we can state unequivocally that what has actually happened is possible. If we combine a knowledge of climatic history with what we know of the mechanics of the atmosphere-earth system, we can see some patterns that can be used to assess the probable future course of the climate.

1. Climate is not fixed. On a long time scale it has varied from glacial, with vast continental glaciers, to non-glacial, such as the last 10,000 years. On the scale of centuries there have also been significant climate changes associated with significant ecological changes.
2. Climate tends to change rapidly rather than gradually. The change from a glacial to a non-glacial climate may take less than a century, though full response of the biota and full adjustment of the environment to the new condition may take much longer. Smaller, but still significant, changes of the climate may occur in a few decades.
3. Cultural changes usually accompany climatic changes. The relatively small climatic changes of the past 10 millenia have changed the human possibilities of the environment enough to make important changes in whole cultures.
4. What we think of as normal climate, at present, is not normal in the longer perspective of centuries.
5. When the high latitudes cool, the monsoons tend to fail. This is especially important because the high latitudes have been cooling in the last three decades, and the hungry half of the world is concentrated in the monsoon lands.
6. Cool periods of earth history are periods of greater climate instability.

### The Future

During the last thirty years, as the climate changes, the world of mankind has changed dramatically as well. The worldwide spread of antibiotics and insecticides greatly reduced suffering from infectious diseases and malaria. It also produced an explosion of population that has about doubled the number of inhabitants of our finite world, even more in the monsoon countries. That rapid rate of population growth continues. As the world has become more

crowded, the mobility of populations has decreased. It is no longer possible for a million Irish to emigrate in response to a famine. A mass movement of a nation of pastoralists to greener pastures would lead to bloodshed if the migration crossed national boundaries - and perhaps even if it didn't.

For many years, world reserves of food grains diminished after the post-World War II recovery peak. There was a short-lived increase with the introduction of the higher yielding rice and wheat of the "Green Revolution." Then the inexorable decrease resumed.

In 1972, a series of climatically-induced crop reductions occurred. The Indian monsoon was weak, the West African monsoon failed, there was drought in Russia, and scores of other countries had climatic problems with food production. In 1973, things seem a little better, but 1974 appears to be disappointing again. With reserves on the order of three weeks, less than full production is fraught with hazards to survival for millions.

We know from the lessons of climatic history that significant climatic changes can occur rapidly and the changed climate can last for centuries. We know that great social disruption and the destruction of cultures can result. We know that the cooler periods of climatic history are periods of highly variable climate. We know that the high latitudes have been rapidly cooling, and that the people of the monsoon lands cannot reduce their food consumption much more and survive. We know that world food grain reserves are inadequate, if more years like the last few occur soon. And we know that the rapid expansion of high technology agriculture would require large inputs of energy and capital, both of which are in short supply. What then does the future hold? Climatic theory is not sufficiently developed to give a definitive prediction. Indeed, the scientific effort to develop this capability has yet to be made. However, we can still turn to the past for guidance into the future. Examination of the record of past climates shows us that coolings such as that of the post-1945 period have not, in the past millenium, lasted less than 40 years, nor has the hemispheric climate returned to the original state in less than 70 years. This suggests that the coming decade will be either like the last few years or more "glacial." The sea cannot change temperature with extreme rapidity because of its enormous thermal inertia. This also precludes an immediate return to the climate of a decade ago.

In Bonn, Germany, in May 1974, a meeting of scholars called by the International Federation of Institutes for Advanced Study reached a consensus that the present climatic trend would continue the rest of the century, the climate would be more unstable, and that climatically-related disaster was likely within the decade. The nations of the world must heed the lessons of climatic history.

Reprinted from "Conservation News, NWP"



by Ed Light

What impact does strip mining, done under current laws, have on the environment? A report just released by Campaign Clean Water entitled, "The Effects of Modern Strip Mining on Water Resources," studies this question and finds that many severe problems still remain. The environmental organization has asked the Department of Natural Resources to take several actions, based on the report, to protect the general public.

The study found that, despite improvements made in pollution control and reclamation requirements:

1. Excessive concentrations of many chemicals are released by strip mining, including the cancer-causing metals, zinc and nickel.
2. Required treatment basins are ineffective and allow more than half of the sedimentation created by stripping to be discharged.
3. Precautions taken against acid formation are generally inadequate, and in some areas acid pollution cannot be prevented.
4. Flood heights are raised by increased runoff from active and reclaimed strip mines in mountainous areas.

5. Groundwater can be seriously polluted and water tables lowered by strip mining.

In a letter, Campaign Clean Water, which is the environmental arm of the West Virginia-Citizen Action Group, has requested DNR Director Ira Latimer to refrain from issuing permits to strip mines which will drain into flood-prone areas, waterways used for public water supply, fishing or swimming, or adjacent to areas using water wells. Also called for was a tightening of sedimentation and acid control measures, and an extension of the revegetation bond period to five years.

According to the author, Ed Light, the report is . . . a response to the increasing pressure to open up new areas for the strip mining of coal. While improvements have been made where modern reclamation techniques are used, it is important for regulatory agencies and the general public to be aware of what problems still remain. In this regard, information from some fifty technical papers and government documents has been included in our report.

Copies of "The Effects of Modern Strip Mining on Water Resources" are available for 50 cents from WV-CAG, 1324 Virginia Street, East, Charleston, West Virginia 25301.

## TEXT OF LETTER TO LATIMER

Mr. Ira Latimer  
Department of Natural Resources  
1800 Washington Street, East  
Charleston, WV 25305

Dear Mr. Latimer:

We would like to bring to your attention some new information on surface mining, and request that you take certain actions to protect the general public. Data in the enclosed report, "The Effects of Modern Strip Mining on Water Resources," suggests that a number of procedures need to be revised in order to fully comply with West Virginia State Code, Chapter 20, Article 6:

1. No permits shall be issued where surface mining will drain into flood-prone areas or waterways used for fishing, swimming, or public water supply. Further, no permits shall be issued adjacent to areas utilizing water wells. Section 11 of the Act provides for the deletion of certain areas from surface mining if such activity will cause flooding, destruction of recreational areas (i.e., fishing or swimming), and impair the health and property rights of others (i.e., surface and groundwater drinking supplies). Among the points relevant to this in the report are:

a. The best available data shows that increased runoff from modern surface mining in mountainous terrain will raise flood heights (pp. 11, 12, 14, 15).

b. Current sediment and acid control methods are only partially effective, and in most cases will lead to the release of amounts which make downstream areas unsuitable for fishing or swimming (pp. 3-8, 12-14). Further, heavy metals found in treated surface mine effluents can be either toxic to fish or concentrate in fish flesh, being toxic to fishermen (pp. 8-10, 14).

c. Modern surface mining can release noxious, toxic, and carcinogenic chemicals in excess of drinking water standards to both surface and ground water (pp. 8-10, 13).

2. Require larger settling basins unless provisions are made to temporarily store all contaminated runoff on the bench. Section 9 of the Act states that all reasonable measures shall be taken to eliminate water pollution. Data in the report shows that current sediment control practices in West Virginia are inadequate and better systems are available (pp. 4, 5).

3. Extend the revegetation bond period to five years after the last seeding. The current bonding period could be extended under current law. Problems with the present two growing season requirements are discussed on Page 6 of the report.

### CONSERVANCY PUBLICATIONS

A new edition of the Monongahela National Forest trail guide is now available. Users will be pleased to know that the format of the guide has been altered, and it will now fit conveniently in a large pocket or an outside pocket on a pack. The new guide measures 5 1/4" x 9". It costs \$2 and can be ordered from the address below.

"The Otter Creek Guide is now out-of-print and unavailable."

1. Dolly Sods Trail Guide & Management Plan - \$1.50. "Available Mid-April"
2. Cranberry Backcountry Trail Guide & Management Plan - \$1.25.
3. Hiking Guide to the Monongahela National Forest \$2.00.

These may be ordered from:  
Ron Hardway  
206 Union St.  
Webster Springs, WV 26288

Copies available at 1-3 discount to stores and clubs. Address inquiries concerning wholesale orders to Bruce Sundquist, 210 College Park Drive, Monroeville, Pennsylvania 15146. Prices as of January, 1975.

4. Require water treatment facilities to be maintained throughout the revegetation bond period. This is a reasonable provision to control water pollution, as provided for in Section 9 of the Act. (See Page 6 of the report).

5. Pre-mining evaluation shall include analysis of core samples for total acidity and clay content. Further, guidelines shall be established for rejecting permits where there is excessive acidic or clay overburden. Section 9 (i) requires an application to show the presence of acid-producing materials, and Section 11 prohibits stripping where past experience with similar overburden shows that sedimentation cannot feasibly be prevented. The report cites current inadequacies in these areas on Page 5 and 7.

6. Soda ash briquettes should not be allowed for acid neutralization. Section 14 (4) requires all water to receive adequate treatment. Soda ash briquettes are not adequate (see Page 7 of the report).

We look forward to specific responses to these requests, along with any additional comments on our report.

Sincerely,  
Ed Light Research Director

## STRIPPING SCOREBOARD

### Applications Received

- ##1455, The Pioneer Co., 25 acres, Kanawha County, Malen Dist.
- ##1456, Cannelton Industries, Inc., 32 acres, McDowell County, Browns Creek Dist.
- ##1457, Williford Excavating Co., 40 acres, Preston County, Pleasant Dist.
- ##1458, Frederick Coal Co., 30 acres, Clay County, Henry Dist.
- ##1459, J.S. Kesling Materials Co., 9 acres, Lewis County, Skin Creek Dist.
- ##1460, B & S Mining Co., 42 acres, Lewis County, Hackers Creek Dist.
- ##1461, Clear Fork Coal Co., 105 acres, Wyoming County, Clear Fork Dist.
- ##1462, R.N. White Contr. Co., 33 acres, Lewis County, Hackers Creek Dist.
- ##1463, C.J. Coal Corp., 10 acres, Harrison County, Grant and Elk Dist.
- ##1464, Paul-Don Company, Inc., 13 acres, Harrison County, Clark Dist.
- ##1465, Amherst Coal Co., 762 acres, Logan County, Triadelphia Dist.
- ##1466, Lewis Coal & Coke, 105 acres, Preston County, Kingwood Dist.
- ##1467, Sterling Smokeless Coal Co., 103 acres, Raleigh County, Town and Slab Fork Dist.

- ##1468, P & S Coal Co., 35 acres, Kanawha County, Cabin Creek Dist.
- ##1469, Princess Missy Coal Co., Inc. 75 acres, McDowell County, Adkins Dist.
- ##1470, K.W.D. Const., Co., Inc., 23 acres, Harrison County, Coal Dist.
- ##1471, Y & R Coal Co., 21 acres, Taylor County, Felington Dist.
- ##1472, L & G Associates, 20 acres, Taylor County, Courthouse Dist.
- ##1473, Ashcraft Coal Co., Inc., 24 acres, Taylor County, Courthouse Dist.
- ##1474, P.S.A. Coal Co., 37 acres, Taylor County, Courthouse Dist.,
- ##1475, Lynn Land Co., 128 acres, Mingo County, Stafford Dist.
- ##1476, David Heeter Dozer Co., 70 acres, Clay County, Pleasant Dist.
- ##1477, School & Wilcher, 80 acres, Kanawha County, Cabin Creek Dist.
- ##1478, Alexander Coal Co., 45 acres, Preston County, Pleasant Dist.
- ##1479, Southeastern Construction, 96 acres, Webster County, Holly Dist.
- ##1480, Laco, Inc., 40 acres, Raleigh County, Town Dist.
- ##1481, West Virginia Coals, Inc., 34 acres, Webster County, Glade Dist.

### Permits Issued

- Princess Susan Coal Co., 80 acres, Kanawha Co.
- Phillips Run Coal Co., 14 acres, Nicholas Co.
- Jenkins Industries, Inc., 74 acres, Greenbrier Co.
- King Knob Coal Co., 177 acres, Harrison Co.
- Low Ash, Inc., 177 acres, Greenbrier Co.
- Belva Coal Co., 32 acres, Logan Co.
- Consolidation Coal Co., Inc., 182 acres, McDowell Co.
- M.E.G. Coal Co., Inc. 22 acres, Harrison Co.
- Cardinal Coal Co., 17 acres, Preston Co.
- Masteller Coal Co., 53 acres, Pocahontas Co.
- Rostoky Mining, 36 acres, Mineral Co.
- Anderson's Paving, Inc., 11 acres, Pocahontas Co.
- King Knob Coal Co., Inc. 28 acres, Monongalia Co.
- A.M.Y. Coal, Inc. 25 acres, Nicholas Co.
- West Virginia Coals, Inc. 50 acres, Webster Co.
- Lewis Coal & Coke Co., 31 acres, Preston Co.

\*\*\*\*\*

If the preceding information makes you eager to throw up, do so in a shoe box and mail it along with other pertinent remarks, to Room 322, 1800 Washington St., E., Charleston, WV 25303, in care of the West Virginia Department of Natural Resources.



# Limnology of Upper Otter Creek

by Gordon T. Hamrick

In the spring of 1974, I undertook a limited program of water sampling on that part of the Otter Creek watershed extending from the trailhead on Condon Run to the shelter, approximately three and one-half miles downstream. Collecting stations were: (1) Condon Run, at the trailhead; (2) Otter Creek above the Water Improvement Station; (3) an unnamed stream crossing the Otter Creek Trail about 1/2 mile downstream; (4) Yellow Creek; (5) Harper Run; (6) an unnamed stream from Shavers Mountain just south of the Otter Creek crossing; (7) an unnamed stream from McGowan Mountain just below the Otter Creek crossing; (8) Otter Creek at the second trail crossing; (9) a stream alongside the Mylius Trail; (10) an unnamed stream from Shavers Mountain below the third trail crossing; (11) Devil's Gulch; and (12) Otter Creek below the shelter.

Tests were made for pH, temperature, free carbon dioxide, dissolved oxygen, permanent hardness, calcium, phosphate, nitrogen, and hydrogen sulfide. Equipment used consisted of a Wein electronic pH meter, two Taylor fishing thermometers, and a commercial colorimetric limnology kit obtained from Edmund Scientific Co. The latter item had one serious drawback in that reagents were identified not by chemical name, but by letter or number; thus, I had no way of knowing which test I was using for any given determination. All tests were made on-the-spot and therefore may lack the exactness of laboratory tests.

The testing period extended from mid-May to mid-October with samples being collected on Thursday morning of every other week. The Thursday collecting date was chosen for two reasons: (1) to eliminate the possible effects of weekend campers, and (2) to avoid the effects of weekend storms which were, at that time, occurring in a seven-day cycle (flash floods on three consecutive weekends in late May and early June).

1974 was a most unusual year from the standpoint of weather. A long, cold, wet spring was followed by a hot and dry summer. This was followed, in turn, by a cold and dry fall. The figures given in the accompanying table are therefore probably not typical of Otter Creek and should be accepted in that context or with reservations.

Water sampling in Otter Creek is a rather dubious proposition, at best, since everything is influenced by precipitation and the steep gradients quickly affect streamflow. Random sampling immediately before and after a thunderstorm, for example, gives widely variable effects. After a thunderstorm, pH at first decreases as surface runoff dilutes streamflow, then increases as runoff reaches the soil. Temperatures may increase or decrease, depending upon the temperature of the precipitation. Other tests are affected: dissolved oxygen reaches saturation levels; free carbon dioxide increases; calcium, phosphate, and nitrogen levels increase as these nutrients are leached from the foliage. Random use of



The head waters of Otter Creek. [Photo by Gordon T. Hamrick]

Minimum/Maximum recording thermometers indicate that stream temperatures in Otter Creek may vary by as much as ten or twelve degrees over a 24 hour period.

Traces of hydrogen sulfide were found only on three occasions, during periods of low streamflow; hydrogen sulfide is therefore not included in the table. Coliform bacteria were found on each of three occasions on Yellow Creek, Condon Run, and Otter Creek below the shelter. These occasions coincided with periods of heavy use of the area.

Efforts to determine streamflow using the method outlined by Dr. Robert L. Smith, in Ecology and Field Biology, were unsuccessful because the streams were too narrow and too variable for practical application of the principle.

One final note - figures given in the table have been "double-rounded" - that is, they were rounded to the nearest whole number at the time of testing and they were rounded to the nearest whole number when they were averaged. This introduced a slight error in the final figures but it would be significant only for the levels of calcium, phosphate, and nitrogen, if significant at all.

## Corps, DOH Hit for Pollution

by Ed Light

In recent years residents along the Elk River have been shocked by the nearly total destruction of what was once one of the finest recreational streams in West Virginia. Sparked by citizen protest, the West Virginia legislature ordered the West Virginia Geological Survey to find out who was to blame for the sorry state of Elk River. When the results were in they showed that every charge levied years earlier by the Elk River Basin Improvement League, and in most cases denied by the polluters, were, in fact, true.

The villains in the story are:

(1) The U.S. Army Corps of Engineers. Rapid changes in Sutton Dam discharge rates, along with rigid maintenance of reservoir pool levels, seriously harm the lower Elk. Alas, the structure of the dam concentrates pollution and increases its effect on the river.

(2) The West Virginia Department of Highways. Construction of Interstate 79 continues to cause massive sedimentation which seriously degrades drinking water supplies and fishing on the lower Elk. The DOH's erosion control requirements are inadequate, and even the current standards are not enforced. Moreover, that agency tends to choose highway routes which unnecessarily increase sedimentation.

(3) The Department of Natural Resources. Active strip and deep mines continue to pour silt into the Elk because the DNR does not fully enforce existing laws. Efforts are also hindered because the DNR has no stream standard for turbidity.

(4) Logging Companies. Despite past promises to the state to police themselves, logging operations are a significant source of pollution. Clearcut areas are, generally, the worst.

(5) Towns. Sewage treatment along the Elk is totally inadequate.

(6) Oil Companies. Well drilling continues to cause salt water pollution in Elk River.

The Geological Survey report lists nineteen recommendations to improve the Elk and the many other rivers in West Virginia now afflicted or soon to be stricken with similar problems.

TEST STATION

| TEST                | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
|---------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|
| PH                  |     |     |     |     |     |     |     |     |     |      |      |      |
| High                | 3.6 | 2.8 | 3.6 | 2.8 | 3.9 | 4.0 | 3.9 | 4.5 | 3.9 | 4.0  | 3.6  | 4.4  |
| Low                 | 4.6 | 3.8 | 4.3 | 3.3 | 4.6 | 4.6 | 4.7 | 5.4 | 4.6 | 4.6  | 4.4  | 4.7  |
| Av.                 | 4.2 | 3.3 | 4.1 | 3.1 | 4.3 | 4.3 | 4.4 | 5.1 | 4.3 | 4.4  | 4.1  | 4.5  |
| Temperature         |     |     |     |     |     |     |     |     |     |      |      |      |
| High (F)            | 58  | 56  | 55  | 58  | 55  | 55  | 56  | 62  | 56  | 56   | 56   | 62   |
| Low (F)             | 42  | 42  | 42  | 42  | 42  | 43  | 43  | 43  | 43  | 43   | 43   | 43   |
| Av. (F)             | 50  | 49  | 48  | 51  | 48  | 49  | 50  | 55  | 50  | 50   | 50   | 55   |
| Carbon              |     |     |     |     |     |     |     |     |     |      |      |      |
| Dioxide (av. ppm)   | 25  | 30  | 22  | 43  | 28  | 20  | 25  | 18  | 17  | 17   | 28   | 21   |
| Dissolved           |     |     |     |     |     |     |     |     |     |      |      |      |
| Oxygen (av. ppm)    | 13  | 19  | 20  | 18  | 19  | 18  | 20  | 13  | 15  | 17   | 16   | 13   |
| Hardness (av. ppm)  | 34  | 34  | 33  | 35  | 35  | 34  | 35  | 35  | 35  | 33   | 35   | 35   |
| Calcium (av. ppm)   | 11  | 12  | 11  | 11  | 11  | 11  | 11  | 11  | 11  | 11   | 11   | 11   |
| Phosphate (av. ppm) | 2   | 2   | 1   | 1   | 1   | 1   | 2   | 1   | 1   | 1    | 1    | 2    |
| Nitrogen (av. ppm)  | 2   | 2   | 2   | 1   | 2   | 2   | 2   | 2   | 1   | 1    | 2    | 2    |



If Congress doesn't bring beverage container legislation to the nation this year, the nation's capital may well bring it to Congress. That is becoming an increasingly real possibility as the District of Columbia and three neighboring counties in Virginia and Maryland move ahead with serious consideration of model legislation to require five cent deposits on all soft drink and beer containers and a ban on flip-top cans. Hearings already have been held by three local governments, with enactment given strong chances in D.C. and Montgomery County, Maryland, in the near future.

In recent years, beverage containers have been the focus of particular concern in the nation's efforts to come to grips with its massive solid waste management problems. During the past 15 years, the country has witnessed a major shift in manufacturing and consumer preference toward disposable convenience packaging. Between 1959 and 1972, the per capita consumption of beer and soft drinks in the U.S. increased 33 percent, but the total number of containers jumped 221 percent from 15.4 billion to 55.7 billion. And by 1980, that number is expected to soar to 80 billion. Needless to say, beverage containers are the fastest growing portion of all municipal wastes, presently accounting for more than eight percent, according to the Environmental Protection Agency. In terms of litter, they account for 20 percent of the total number of litter items and 70 percent of the volume. Proposed solutions to this mounting problem have taken a variety of forms. Some groups, such as Keep American Beautiful, Inc., an industry-sponsored non-profit organization, view litter as a people-caused problem. Its solution is to educate people to not litter. Others, such as the National Center for Resource Recovery, Inc., another industry-backed group, advocate the development of technologies which will separate solid waste into its different recoverable components and recycle them for reuse.

With the price of virgin materials climbing while domestic supplies are shrinking and an average \$300 worth of aluminum, \$30 worth of glass in a ton of municipal wastes, there's growing incentive to mine the nation's waste piles. NCRF already has a contract with New Orleans to set up a recovery facility to handle the city's wastes, and it is negotiating to do the same for Washington, D.C. Undoubtedly the most visible and politically controversial solution to the beverage container litter problem has been to require a deposit on all beverage containers to encourage their return. The idea is that once containers are returned

the costs of handling them will be so expensive to the retailer and manufacturer that they will be forced to return to the manufacturer of thick-walled returnable, refillable containers.

And, in these days of energy consciousness, the fact that a returnable bottle filled 15 times will use 50 to 85 percent less energy than a one-way container does not go unnoticed among the advocates of returnables. According to some experts, nationwide return to returnable would save enough electric power to be used by two and a half million people.

The "bottle bill" idea has instigated a lot of heated debate, with its environmental proponents as strong in their advocacy as its industry opponents. It gained national credibility in 1972 when Oregon broke ranks with the rest of the states to enact a bill that not only institutes the nickel deposit requirement and a flip-top can ban, but also creates incentives for the manufacture of standardized containers that are interchangeable among different companies. Since then, Oregon has reported container litter to be down about 70 percent. Retailers have not gone out of business; sales are not down. While skilled jobs have been lost in the container manufacturing industries, they've been replaced substantially by lower paying, unskilled jobs in bottling companies and retailing outfits.

In the aftermath of Oregon's bold step, almost every state in the country has at least given consideration to such legislation, in addition to several communities. Only a handful, however, have enacted anything. Congress was presented with the opportunity to take up the idea when Oregon Senator Mark Hatfield introduced a bill modeled after the Oregon law last year. But since then, the bill has been stuck in committee, surfacing briefly during two days of hearings last May, and then resubmerging, with some speculation that it may finally come out as a last-minute amendment to other solid waste management.

Meanwhile, metropolitan Washington, D.C. has moved ahead on its own, while consideration of a model ordinance drafted by a regional council of governments last summer. To realize that this action is something much more than just a parochial matter, one needs only to attend some of the local hearings which have been held on it. As one newspaper described it, with big industry's high-powered representatives turning out in full force to testify on their concerns about the proposed ordinance, the city council hearings looked more like the scene of congressional hearings on national legislation than local citizen-grappling with a local problem. Nobody seems to be missing the political significance of the fact that Congress will have a much more difficult time pleading ignorance of a program clear across the continent when it also is in operation on its own doorstep.

Aside from this, metropolitan Washington D.C., is the setting of a number of obstacles unlike other sections of the country which have yet to test a bottle bill. For one thing, enactment of the bill would make Washington D.C. the first major metropolitan area in the nation to do so. Many opponents of the bill have argued that it's one thing for a relatively rural state such as Oregon or Vermont which already has a significant number of returnables on the market to make the shift to a completely returnable system. It's something else again for a major eastern city, in which returnables are in very low supply, to do the same thing. Whereas containers average 15 returns per bottle in Oregon, they average only four or five in larger eastern cities.

For another thing, Washington D.C. and its neighboring counties offer a good illustration of the need for cross-jurisdictional coordination to make the legislation work. Although the population of the District is less than 800,000, the total metropolitan population approaches three million. If consumers can cross jurisdictional lines to obtain throwaways, the effect of the legislation might be undermined. In Washington, D.C., many followers of the bill predict that its effective implementation will depend on the adjoining counties also adopting the ordinance.

With its strikingly divergent population, metropolitan Washington, D.C. presents a good test of the response of a broad range of economic groups to the idea. Whereas Montgomery County, Maryland, has one of the highest per capita incomes in the nation, the District of Columbia has one of the lowest for an urban area. And how low-income, urban residents react to the bill compared to high-income suburbanites will be

no minor issue. Indeed, D.C. consumer spokesmen are complaining that city residents would be less likely to return containers and thereby would suffer more financially from a mandatory deposit.

Washington, D.C., also epitomizes the conflict between different approaches to litter reduction. Keep America Beautiful signs are strategically located throughout the city to remind citizens that litter is a "crying shame." NCRF already has an experimental waste separation unit operating at one of the District's municipal facilities and is negotiating for a bigger operation for the city. Since NCRF required New Orleans to sign a contract requiring monetary compensation for any revenue lost due to a legislatively induced change in the waste stream, some advocates of bottle legislation see NCRF's work in D.C. as a threat. They urge enactment of bottle bills before expensive resource recovery systems are contracted.

Finally, as elsewhere in the nation, inflation and high prices are becoming overriding issues. Studies by local environmental groups of liquor and grocery stores in the District show that cases of beer in returnables are an average 81 cents cheaper than the same beverage in cases of nonreturnables and 79 cents cheaper for cases of soft drinks. But the proliferation of the nonreturnable has resulted in a very limited supply of returnables in only a small percentage of the city's stores. So at a time when consumers are especially cognizant of spiraling prices, environmentalists are stressing more than just waste reduction and energy savings if a mandatory return to returnables is instituted. They also are talking about increasing consumer choice and bringing down prices. In the end, the issue, stripped of all its political and economic ramifications boils down to two questions: Who is responsible for the nation's wastes - the industries which manufacture disposable convenience products or the people who use them? And, regardless of who is the cause, can the nation's consumer habits and manufacturing trends be turned back 15 years?

[Reprinted from National Wildlife Federation  
Conservation News]

## Georgia Mountaineers

Much work by and for the Highlands Conservancy is carried on behind the scenes. Often positive results are achieved, and no one ever knows who was responsible. Some of our most active members prefer anonymity, and we respect their decision.

However, sometimes anonymity occurs simply because no one took time to give proper credit where credit was due. The VOICE would like to take the opportunity here and now to extend recognition to a group of people whose intense activity during the waning days of the last Congressional session helped sway the passage of the Eastern Wilderness Bill. They also played no small part in the battle to reinstate the Cranberry Back Country in the bill.

The group hails from Georgia, and receives its inspiration from a former West Virginia conservation leader, Lou Greathouse. Lou spent many hours during November and December contacting kindred spirits throughout Georgia, people who are former West Virginians or who are involved in wilderness struggles in Georgia. He encouraged them to write, telephone and visit personally their Congressmen to insist on quick passage of Eastern Wilderness and to reinstate Cranberry. Many of the people Lou contacted did as he asked, not because he asked, but because they wanted to do something to help.

We do not know, of course, how much influence the Georgia group had on Congressional action. We do know that the Eastern Wilderness Bill did pass and that Cranberry was a part of the bill. We think we are safe in assuming that without the help of the Georgians, things may have gone differently. We are aware that the Georgians did not achieve such satisfying results by themselves, but they were an important part of the total effort to achieve passage of the Eastern Wilderness Bill.

Because we know who the Georgians are we can extend thanks to them for their assistance. So, thanks, Lou Greathouse, Margaret Tucker, Jim Wilson, Jay Ricketts, Loy Ware, Walt Munnikhuysen, Kerry Dawson, George Booth, Preach Parsons, Elliot Wigginton and Keith Evans. Your hearts know where you belong.

### JOIN THE WEST VIRGINIA HIGHLANDS CONSERVANCY

*We travel together, passengers on a little space ship, dependent on its vulnerable reserves of air and soil; all committed for our safety to its security and peace preserved from annihilation only by the care, the work, and, I will say, the love we give our fragile craft.* --Adlai Stevenson

- \$5.00 Individual regular
- \$10.00 Individual associate
- \$25.00 Individual sustaining
- \$20.00 Organizational regular
- \$30.00 Organizational associate
- \$50.00 Organizational sustaining

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

ZIP \_\_\_\_\_

Make checks payable to "West Virginia Highlands Conservancy." Mail membership form and dues to:

Virginia McTeer  
1026 Sixth St., Apt. 2  
Charleston, WV 25302