



THE HIGHLANDS VOICE

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Court Date Set In Laurita Mining Case

by Joan Sims

The 4-H Road Community Association, together with the West Virginia Highlands Conservancy, has filed a lawsuit in the Federal Court in Clarksburg against the State Department of Energy (DOE) and the Federal Office of Surface Mining (OSM). The purpose of the suit is to revoke the permit that the State DOE issued to the Mepco Mining Company to mine in the watershed of Booth's Creek, near Morgantown. Morgantown attorney Tom Rodd is representing both plaintiffs.

An interesting string of events has preceded this Mepco Permit Application. First, James Laurita Sr. applied for this permit under the name of Stone King. He failed to list the more than 290 violations, some of which are uncorrected, that his other companies received in Pennsylvania in the last three years. The State refused to require him to do so, even though Federal OSM laws clearly required him to. Under the threat of a lawsuit from us, James Laurita Sr. withdrew his application.

The Lauritas are not easily discouraged. Now James Laurita Jr. applied for and was granted this same mining permit on March 14 under the name of Mepco. James Jr.'s permit application does not list his father's many violations, as is required by State and

Federal Mining Laws. He must do so because a recent OSM investigation showed that James Sr. works closely in the mining business and will review and approve all plans of the Mepco Company. We believe that this Mepco Company is a shell corporation created by the Laurita family for the purpose of avoiding the legal consequences of James Laurita Sr.'s bad mining record in Pennsylvania.

The federal court case will address the serious and widespread coal mining problems that result when a permit-blocked coal mining operator has a friend or relative apply for a permit for him that he himself is unable to obtain. This situation certainly undermines the intent of the Federal Surface Mining Act. A citizens group is struggling with a similar mining case with the Black Gold permit application in Lincoln County. On March 15 the OSM gave Energy Commissioner Faerber ten days to revoke the permit or explain why. Faerber defended the permit approval saying that the OSM investigations did not lead to any specific recommendations. OSM will not take further action until after the April 19 hearing. It will be interesting to hear what the State DOE has to say for itself at the hearing.

Some Environmental Legislation Passed

The 1988 West Virginia Legislature passed some bills dealing with items of concern for WVHC members. The following, from the Sunday Gazette-Mail, April 4, summarizes these bills.

Underground Storage

S85: Creates the Underground Storage Tank Act to permit the State Department of Natural Resources to assume primacy in enforcing federal laws dealing with underground storage facilities, establishes a \$25 registration fee per tank per year; requires corrective action if leaks occur; authorizes creation of an insurance fund and provides for civil penalties of up to \$25,000 a day for non-compliance.

Solid Waste Disposal

H3146: Establishes a statewide program for litter control and solid waste disposal; creates the West Virginia Resource Recovery Solid Waste Disposal Authority which must within one year divide the state into geographical areas known as solid waste disposal sheds; sets a \$1 per ton fee at the disposal site for waste hauled from within the shed and an additional \$1 per ton fee for waste hauled from outside the shed, and sets aside 25 cents from the first \$1 fee to be used for cleaning up dumps; adds a \$1 fee to motor vehicle tags to provide money for the Department of Highways to clean up litter

and educate the public against littering; gives counties the option of levying a 50 cent-a-ton fee to raise money to clean up dumps; authorizes county solid waste authorities and transfers jurisdiction over the management of solid waste to the Department of Natural Resources.

Mining

S199: Sets up two revenue accounts — one for the Coal Mine Safety and Technical Review Committee and another for the Board of Coal Mine Health Safety. The bill also mandates the state Department of Energy reorganize, increasing the number of divisions from two to four, each with a director.

The bill increases coal permit fees from \$500 to \$1,000 and establishes a renewal fee of \$2,000. Fees for a water pollution discharge permit were raised from \$50 to \$500 and a renewal fee of \$100. A revenue account was established for civil penalties assessed by the DOE. The changes should result in an additional \$1.5 million next year.

Hunting

S459: Increases hunting and fishing fees by \$3 and requires outdoorsmen to purchase a \$3 conservation stamp. It also increases fees of other hunting licenses.

EPA Finds Most Electric-Utility Wastes Non-Hazardous

The U.S. Environmental Protection Agency has concluded that most wastes from power-plant coal combustion in the electric-utility industry do not warrant regulation as hazardous wastes.

However, some low-volume wastes produced during equipment maintenance and water-purification processes, such as metal — and boiler-cleaning wastes, do occasionally meet EPA's definition for hazardous waste and the agency will consider whether or not to regulate them.

EPA must make its decision on whether to regulate any of the wastes as hazardous by September. The findings came in a report to Congress on wastes generated from coal combustion in the electric-utility industry. In 1980, the Resource Conservation and Recovery Act (RCRA), the federal hazardous-waste-management law, exempted from regulation all fossil-fuel-combustion wastes, pending completion of today's study.

Electric-utility wastes account for approximately 90 percent of all wastes generated from the combustion of fossil fuels. EPA has deferred study of the disposal of wastes generated by the combustion in industries other than the electric-utility industry until a later date.

Dr. J. Winston Porter, EPA's Assistant Administrator for Solid Waste and Emergency Response, said, "We found that the vast majority of the waste produced by these power plants is not hazardous. In a few instances, where we found

some toxicity and contamination, we will work with the states, which should be able to take action to prevent any public or environmental threats."

Coal-fired power plants produce substantial quantities of wastes. In 1984, nearly 69 million tons of ash and 16 million tons of flue-gas-desulfurization (fgd) wastes, primarily from equipment used to capture emissions, were generated by 500 power plants nationwide. By the 2000, the amount of ash is expected to increase 75 percent to about 120 million tons annually; production of fgd wastes is expected to triple to about 50 million tons annually.

Over 95 percent of ash is composed of oxides of silicon, aluminum, iron and calcium, substances not considered to be of major concern. However, small quantities of substances which can be toxic at certain concentrations may be present in some wastes, including arsenic, barium, cadmium, chromium, lead, mercury and selenium.

Most of these wastes currently are subject to state and local solid-waste laws. EPA found substantial variation among states in disposal requirements.

Eighty percent of the wastes are typically disposed of in surface impoundments or landfills. EPA found that most disposal facilities do not have protection from leaching into soil and groundwater, although liners, leachate collection systems and groundwater monitoring are more common at new facilities.

Studies done for EPA indicate that metals generally do not leach from coal-combustion wastes at levels classified as hazardous under RCRA, although some samples of ash and sludge did indicate hazardous levels of cadmium and arsenic in the waste.

EPA studies also indicated that some groundwater contamination from the migration of potentially hazardous constituents from disposal sites has occurred, although groundwater contamination does not appear to be widespread. Some sampled wells showed that some constituents exceeded drinking-water standards about five percent of the time.

One-fifth of the wastes, usually ash, are reused as cement additives, high-volume road-construction material and blasting grit. EPA believes there is potential for increasing the reuse of these wastes. The proportion of those wastes that are disposed of versus those that are reused is not expected, however, to increase significantly.

EPA studies indicate that some waste streams may be of concern, particularly those produced during equipment maintenance and water purification, such as metal — and boiler-cleaning wastes. These ancillary wastes may exhibit the hazardous characteristics of corrosivity or toxicity and may merit regulation under EPA's hazardous-waste regulations. For boiler-cleaning wastes, chromium, lead and corro-

(continued on page 6)

Mountain View

Pearls Before Swine

by John Purbaugh

It is customary, this time of year, to read columns and opinion pieces decrying the inaction of the legislature in the season just ended. In know, they call their get-togethers "sessions", but "seasons" (as in turkey or small game) they are. One well-known humor columnist from the Charleston Gazette abandoned his usual format to call for the voters to turn out ALL the incumbents, under the apparent theory that current legislators were no longer even funny, and a new crop would at least provide grist for the humor mill. His approach to the problem is at least cute, if not funny. It's certainly poor citizenship.

Personally, I'm more inclined to see the problem in light of agricultural metaphors, because they too contain a lot of hockey. The grand theory of elected citizen legislators is that because we voted for them, they represent our views and respond to our needs. This works, if at all, only in the very big picture, and not in the annual legislative season. Most legislators' real constituency is a small group of influential persons back home in their district, and a scattering of industry, union or agency people wearing some title like "governmental relations specialist." Only when an issue grips the public so that they get very scared or angry, and communicate this to the legislature, does the theory work.

We can't get a governmental ethics bill passed despite the dismissal, due to technical flaws, of charges against several high officials. The State has a "revenue shortfall" (if it were a business or consumer, a bankruptcy) and a deficit budget which is unconstitutional, but the legislature has announced its intention to do nothing to fix this year's budget. We have cast the pearls of our issues before the elected swine of the legislature, and we can hardly be surprised when, after some snuffling and rooting around, the pearls are lost in the hockey. Like pigs in a pen, too many legislators are most interested in what's at the end of their nose.

There are exceptions to every rule, and not all legislators should be turned out because of the shortcomings of the majority. Sadly, many of the most responsible senators and delegates are quitting in disgust. The Conservancy does not make political endorsements, have a political action committee, or otherwise get involved in elective politics, because such activity is inappropriate and unlawful for a non-profit, tax exempt organization. However, urging informed participation by our members and readers, whatever their political allegiance or views, is appropriate. Recall the past session in a way that lets you decide who is and isn't taking a responsible approach to our issues. If you need help, contact one of the many organizations, such as the League of Women Voters, which can help you become informed.

Every Breath Counts

VOICE EDITOR

In the January **Highlands Voice** Mike Harman informs us in a few lines that the W. Va. Air Pollution Control Commission is drafting rules to require "best available control technology" to further reduce certain cancer-causing air emissions. He urges us to write in support of this much need action.

I, too, want to commend the commission and its fine executives and technicians for the study required to justify this initiative. What is actually in our air, and what are their health effects are exceedingly complicated. I just used the term "our air" and Mike Harman used the phrase "it is your air" and mentions the intense air quality problem in the Ohio Valley. However, air-shed movements are also much complicated. Some modeling indicates 20% of the air pollution in the Ohio Valley comes from the Gulf. (We learned recently we are only eleven days from Chernobyl.) We must join our neighbors and our nation in a region-wide cleanup of our air. I want to tell you why I think it is important to write and support this in every way you can.

As a biologist I have some feel for the sensitivity of the incredibly branched and thin active lungs protected inside our bodies. My appreciation does not approach that of my colleagues in medicine, I'm sure, but I believe the average citizen can appreciate this — particularly as we have heard so much about the dangers of smoking lately.

We breathe from 10,000 to 20,000 liters of air each day! (In contrast we seldom drink over a liter of water a day.) Some Lung Association literature claimed each breath contained 10 billion, trillion air molecules! (This is about as many stars as are in the known universe.) What this means is that, at a concentration of one part per quadrillion of a pollutant (the tiniest detectable trace of a trace), each breath will inhale one million molecules of the pollutant!

Don Gasper

**Deadline for Articles
for June Voice
May 27**

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New OSM Federal Surface Mine Rule Changes With Respect To Fish And Wildlife

In Nov. 1987, the Federal Office of Surface Mining (OSM) issued revisions to its regulations for surface mining and surface impacts of underground mining in response to certain court decisions to clarify rules concerning fish and wildlife input and impacts. This revision was part of a general review of their program in the ten years after its enactment. These revisions were called "explanations" and through the summer of 1986 public comments were solicited. The OSM received over 200 evaluations from the state regulatory agencies and their fish & wildlife agencies, the coal industry, environmental groups and private citizens.

The OSM considered all these comments before finalizing the changes that became effective in January 1988. These changes contained one very progressive step, to clarify that the state enforcement agency does have to involve the state fish & wildlife agency in consultation. In WV, the state Department of Energy (DOE) had taken steps, even to hiring its own biologists, to furnish in house the "informed and expert" comment required by their own interpretation of these rules. These federal "explanations" make it clear that this is an abuse, and the agency responsible for fish & wildlife must be consulted. "Consultation" may be oral and written advice on the amount and nature of information required in the application, on the impact of the proposal on fish and wildlife in the mined and adjacent area,

and on the reclamation plan. The enforcement agency must "consider" these comments, even though they are only advice. The enforcement agency's decisions must be well reasoned and consistent with their program." The interaction between the W. Va. DNR Wildlife Division and perhaps Water Resources Divisions and W. Va. DOE remains to be worked out. Hopefully a mutually beneficial program will encourage coal mining without environmental degradation. This clarification suggests a memorandum of understanding to assure protection of fish and wildlife resources. The federal clarification has put the W. Va. program back on the proper track at least, and it will be a challenge now to coordinate efforts and protect the environment everywhere.

Additionally, very positively, OSM reaffirmed the need for its own fish and wildlife provisions to assure they would be adequately protected by every state. They affirm the need for base-line premining information and post mining plans. They also thought surface mining and the surface impacts of drift mining could be considered together. They will be hereafter probably be addressing all of the problems of each. Even subsidence is covered under hydrological impact. The explanation clarifies further and strengthens provisions that ensure protection of threatened or endangered species. It encourages the development of special areas

of "unusually high value" or areas "requiring special protection" that would require more information in the application and a more expert review.

That is the good news; the rest is bad. In this late stage of the federal administration there was little inclination internally to tighten controls, but there are certain abuses of the regulations brought about by different interpretations that resulted in an unevenness and even bad, even scandalous, situations that would indicate a failing program. This is why they were called "explanations."

A forthright improvement of these regulations could not have been expected. It was a response simply to court directives, and was inadequate at that. It served to set up a smoke screen in a period of scrutiny and served the administration well.

Fish and wildlife had been considered separately in base line information and planning. They will here after be considered together. Many, including WV DNR personnel said they could be considered together, believing that fish and wildlife (game) responsibilities were invested in one agency. However, the fishery considerations are entirely of a different nature involving as they do water quality and quantity in an altered hydrological regime. They should be treated separately throughout the application and review. So this is, on the whole, one destructive step.

Along these same lines, fishery considerations go far beyond the chapter of the law and regulations dealing with fish & wildlife. This chapter was the only part of the law that the OSM felt necessary to subject to public comment under the court directive. Sadly, it was assumed to be adequate by the court and evidently by environmental groups. Yet the protection afforded water quality runs through the entire act and other chapters of the regulations — particularly area unsuitable for mining water quality, hydrological consequences, etc.

One major perversion of the intent of the law that had developed clearly in these 10 years is the substitution of uninterrupted perpetual treatment for the prevention of residual acid seepage. This policy has resulted in the acidification of the Buckhannon/-Middle Fork/Tygart River systems. This was clearly an abuse and a "clarification" and "explanation" was necessary if this was to be a genuine reform.

No state will initiate a reform. Hopefully the next federal administration will rescue the surface mine control act from failure. We do again have DNR Wildlife Division's review and advice. We will have to see if this can be an effective voice in preserving water quality and fisheries particularly. Hopefully citizen confidence in much of the program can be restored, and citizen will not have to carry such a burden of vigilance.

MNF Seeks Corporators

The Monongahela National Forest is seeking interested conservation groups and individuals to participate in the Challenge Cost Share Program. This program provides the opportunity for interested organizations and individuals to cooperate with the Forest Service to improve fish and wildlife habitat and recreation opportunities. Over 100 organizations nationwide have participated in this program.

The Challenge Cost Share Program can involve matching monies, labor, and equipment, or sharing technical skills. The size and costs of these projects can vary tremendously, but regardless of size or cost, nearly all projects are on-the-ground improvements that produce results for wildlife, fish, and people. Suggestions for projects come from inside and outside the Forest Service. Whether you are an individual, member of a local club, civic organization, state or national conservation organization, or a state or federal agency, you can become a partner in improving resources. All you need is an interest and a commitment to make good things happen.

On the Monongahela, the variety of projects and interested groups is impressive. Some of the groups working with the Monongahela National Forest are West Virginia Department of Natural Resources, Allegheny Chapter Trout Unlimited, and the Sierra Club with its Adopt a Trail



program. Some of the work that has been accomplished in the past include fish structures to create pools in streams, peregrine falcon hacking (staged release) studies, and recreation trail maintenance. Planned projects for this year include additional fish structures, hacking peregrine falcons, food plots for wild turkeys, and recreation trail maintenance. Potential future projects include fish structures, peregrine falcon releases, stream rehabilitation, wild turkey food plot rehabilitation, strip mine reclamation for wildlife, bluebird habitat improvements, fruit tree fertilization for wildlife, endangered bat studies, and endangered northern flying squirrel work. Future projects have a focus depending upon the cooperators and their interests. Interest groups and individuals are encouraged to contact the Monongahela National Forest if they would like to take on a project, have a project "custom designed" for them, or would like more information. For more information contact: Cal Casipit, Monongahela National Forest, P.O. Box 1548, Elkins, West Virginia 26241. (304) 636-1800, Ext. 288.

Reasons to join WVHC

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

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

The Highlands Voice, a monthly 8-page

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

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

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

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

WVHC Membership Categories (Circle One)

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

Name: _____ Phone: _____

Address: _____

City/State/Zip _____

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

Membership Benefits

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

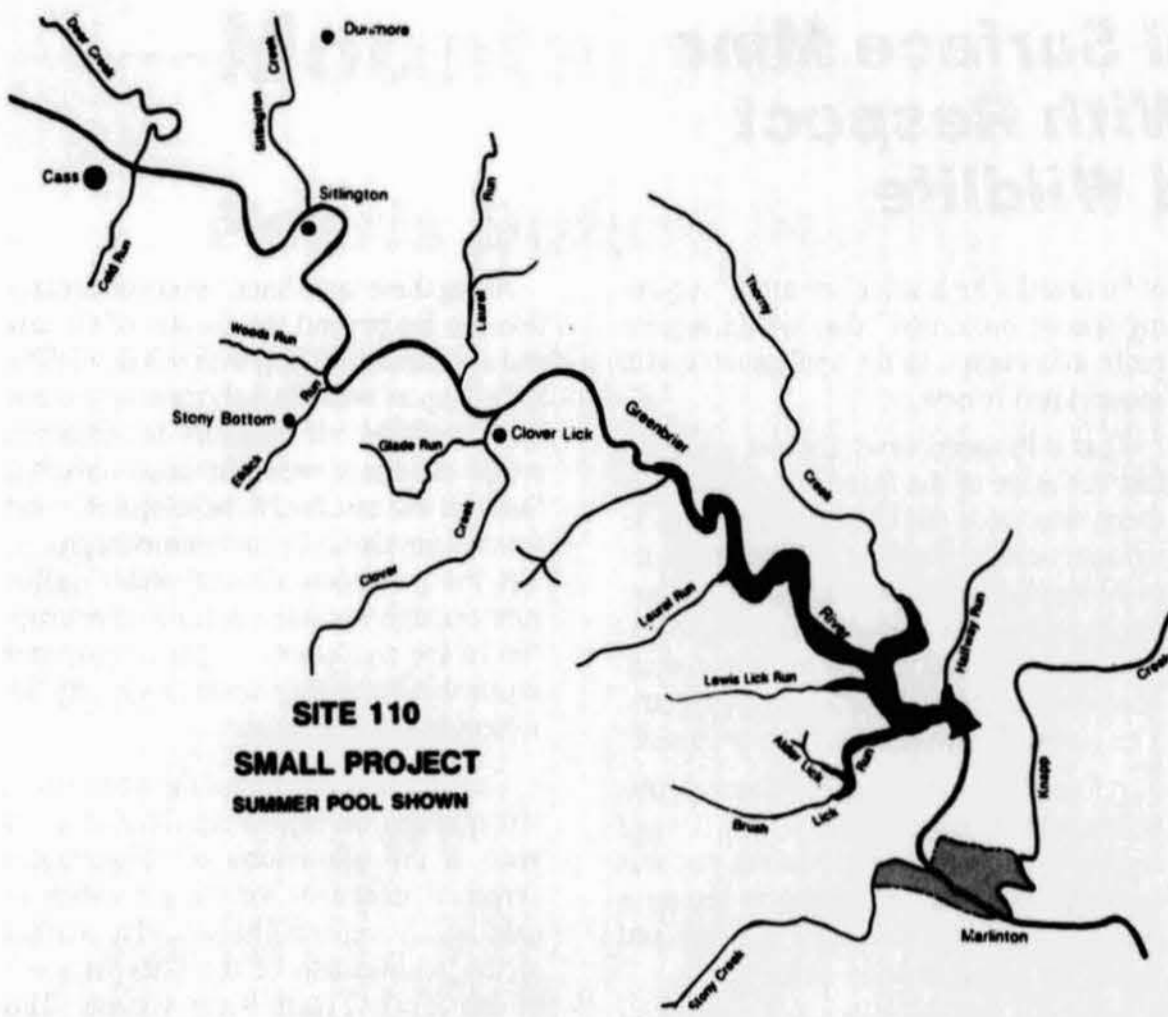
The West Virginia Highlands Conservancy is a non-profit organization. Your contribution is tax-deductible. Please keep this for your records.

Date _____

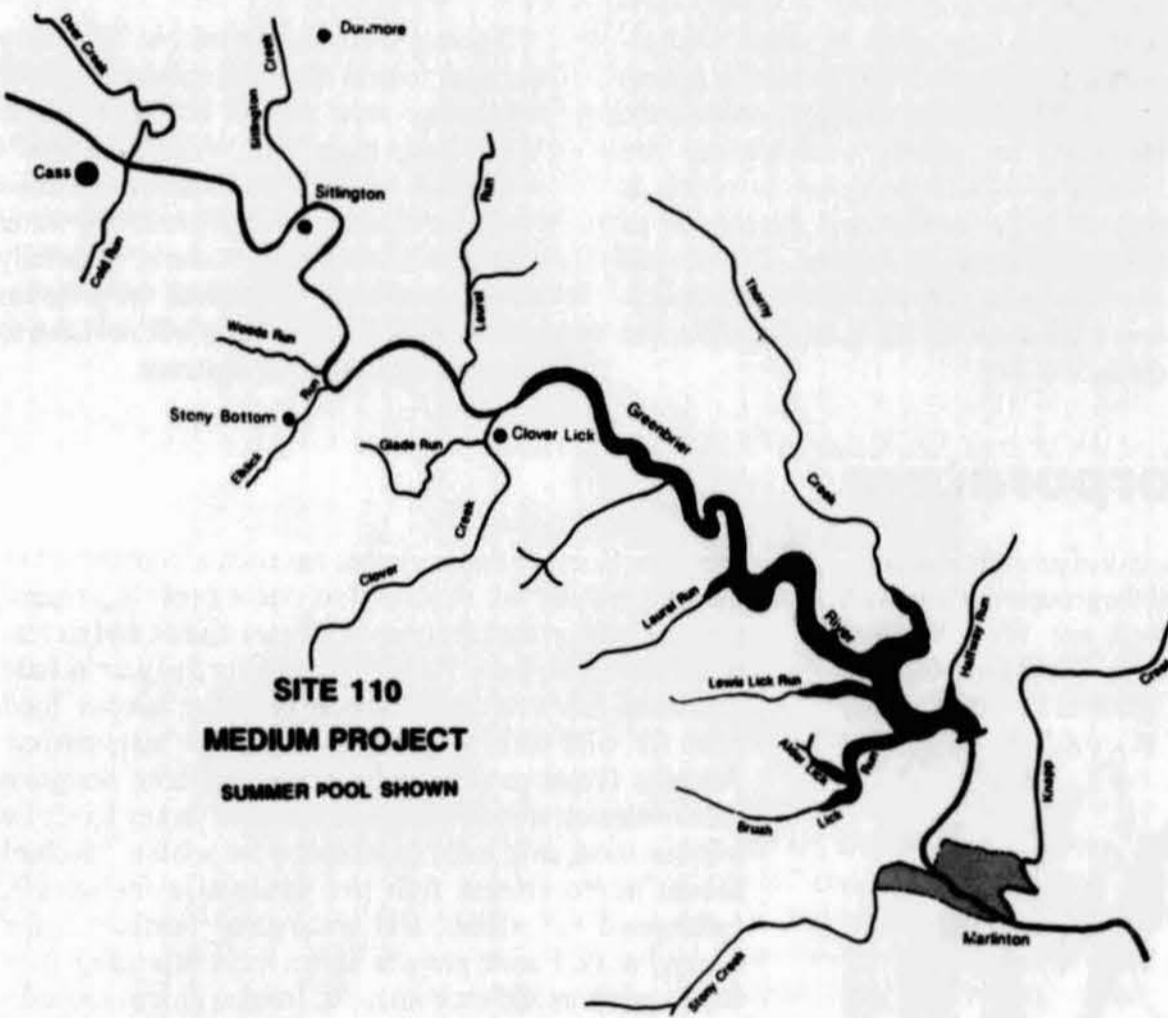
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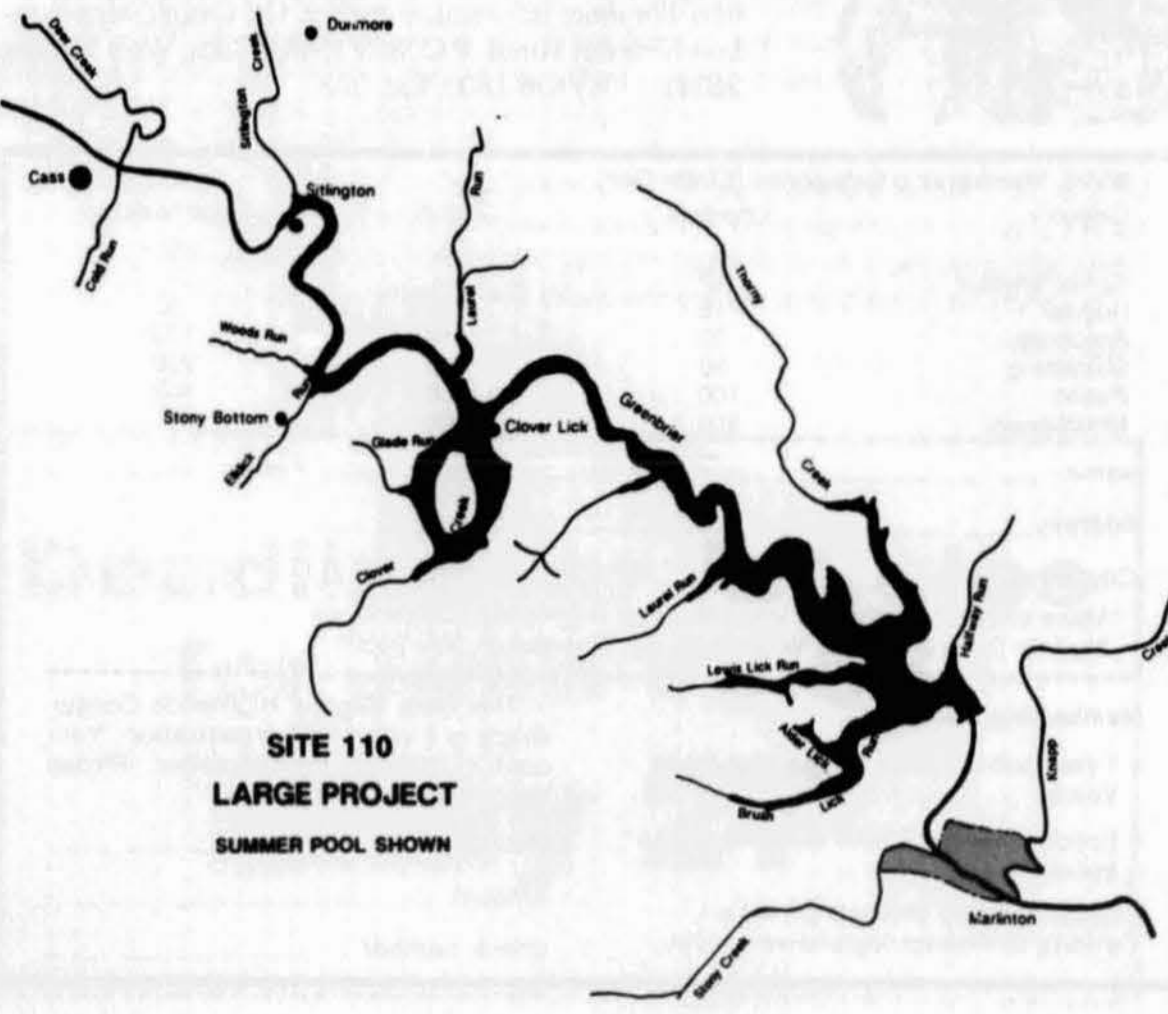
Greenbrier River Basin



**SITE 110
SMALL PROJECT
SUMMER POOL SHOWN**



**SITE 110
MEDIUM PROJECT
SUMMER POOL SHOWN**



**SITE 110
LARGE PROJECT
SUMMER POOL SHOWN**

As a result of the Greenbrier River Basin study to date, the Corps feels the only economically feasible alternatives for flood damage reduction in the Greenbrier Valley are a main stem dam and certain nonstructural methods for altering flood prone property.

The Corps is studying dams at two points on the Greenbrier River between Marlinton and Cass. One site is about two miles above Marlinton (Site 110) and the other between the railroad tunnel and Big Run (Site 119).

At Site 110 the Corps has been studying four possible alternatives and three possibilities at Site 119. One at each site is a "dry dam." In this case the river is not impounded under normal conditions but only at time of flood. Maps and other information on the five impoundments are given on this page.

It needs to be noted that the maps show the sizes of the summer pool for each project and not the maximum flood protection pool. The maximum pools are as follows:

Site 110 Small — extends to just below Clover Lick

Site 110 Medium — extends about a mile above Stony Bottom

Site 110 Large — extends to one mile below Deer Creek and 1/2 mile up Sitlington Creek

Site 119 Small — extends to two miles below Deer Creek and 1/2 mile up Sitlington Creek

Site 119 Medium — extends 1/2 mile below Deer Creek and 1 1/2 miles on Sitlington Creek.

Due to changes in the law, flood control projects now can only be funded with about 75% federal funds with the balance coming from state and local sources. Recreational facilities have to be funded entirely by non-federal money.

The Corps' report notes that no action is always an option.

A draft feasibility report is scheduled to be completed in early 1989. Following public review the final report is due for completion in September 1989.

(From The Pocahontas Times)

From Army Corps Of Engineers About Real Estate For Reservoir

In response to a request at the February 24th public workshop on flood control, this letter provides additional information on the assessment of real estate for potential main stem reservoir alternatives during the preliminary phase of the Greenbrier River Basin study.

Land requirements for the preliminary study are based generally on the "Joint Land Acquisition Policy for Reservoir Projects as

**SITE 110
PERTINENT DATA**

	DRY DAM	SMALL DAM	MEDIUM DAM	LARGE DAM
DAM HEIGHT (FT.)	230	230	250	310
DAM LENGTH (FT.)	1400	1400	1500	1700
SUMMER POOL (ACRES)	N/A	1150	1780	4200
DRAINAGE AREA (SQ.MI.)	388	388	388	388
REAL ESTATE ACQUIRED (ACRES)	2544	2544	3478	6400
RESIDENTIAL STRUCTURES ACQUIRED	36	36	64	102
RIVER MILES INUNDATED BY SUMMER POOL	N/A	11	14	19

**SITE 110
BENEFIT - COST SUMMARY**

	DRY DAM	SMALL DAM	MEDIUM DAM	LARGE DAM
TOTAL CONSTRUCTION COST (\$)	49,038,000	57,153,000	71,501,000	97,777,000
TOTAL ANNUAL COST (\$)	4,897,000	5,795,000	7,187,000	9,755,000
ANNUAL FLOOD CONTROL BENEFITS (\$)	4,404,000	4,404,000	4,404,000	4,404,000
ANNUAL RECREATION BENEFITS (\$)	0	1,320,000	1,595,000	2,277,000
OTHER ANNUAL BENEFITS (\$)	663,000	778,000	943,000	1,306,000
TOTAL ANNUAL BENEFITS (\$)	5,067,000	6,502,000	6,942,000	7,987,000
NET BENEFITS (\$)	170,000	707,000	(245,000)	(1,768,000)
BENEFIT - COST RATIO	1.03	1.12	0.97	0.82

Green River Flood Control Study

published in the Federal Register dated February 22, 1962, Volume 27, Page 1734 and again on July 2, 1966, in 31, F. R. 9108. Specific land for recreation use was not included in the preliminary study. The estimate is based on consideration of land, improvements, moving expense allowance, replacement housing supplement, and administrative costs.

Specific data are provided as follows:

Site 110 Small or Dry Reservoir Real Estate Costs — \$3,845,000. Real estate required: Land — 80 tracts — 2544 acres (Private 93%, State 7%) 312 Residential, 3 Mobile Homes, 2 Churches. Federal land required — 948 acres, not costed.

Site 110 Medium Reservoir Real Estate Cost — \$7,683,000. Real estate required: Land — 187 tracts — 3478 acres (Private 90%, State 10%) 53 Residential, 8 Mobile Homes, 3 Churches. Federal land required — 1239 acres, not costed.

Site 110 Large Reservoir Real Estate Cost — \$10,126,000. Real estate required: Land — 216 tracts — 6400 acres (Private 89%, State 11%) 88 Residential, 11 Mobile Homes, 4 Churches, 1 Store, 1 Motel (4-unit). Federal land required — 1825 acres, not costed.

Site 119 Small or Dry Reservoir Real Estate — \$6,820,000. Real estate required: Land — 151 tracts — 3846 acres (Private 82%, State 18%) 58 Residential, 10 Mobile Homes, 3 Churches, 1 Store, 1 Motel (4-unit). Federal land required — 488 acres, not costed.

Site 119 Medium Reservoir Real Estate Cost — \$7,159,000. Real estate required: Land — 154 tracts — 4196 acres (Private 79%, State 21%) 60 Residential, 10 Mobile Homes, 1 Store, 4 Churches, 1 Motel (4-unit). Federal land required — 502 acres, not costed.

For the preliminary study, dry reservoir and small reservoir real estate costs were assumed to be the same. Subsequent real estate estimates of all options in the feasibility phase of study will be based on a more detailed assessment and stricter adherence to the referenced "Joint Policy." The estimates can be expected to change.

Sincerely,

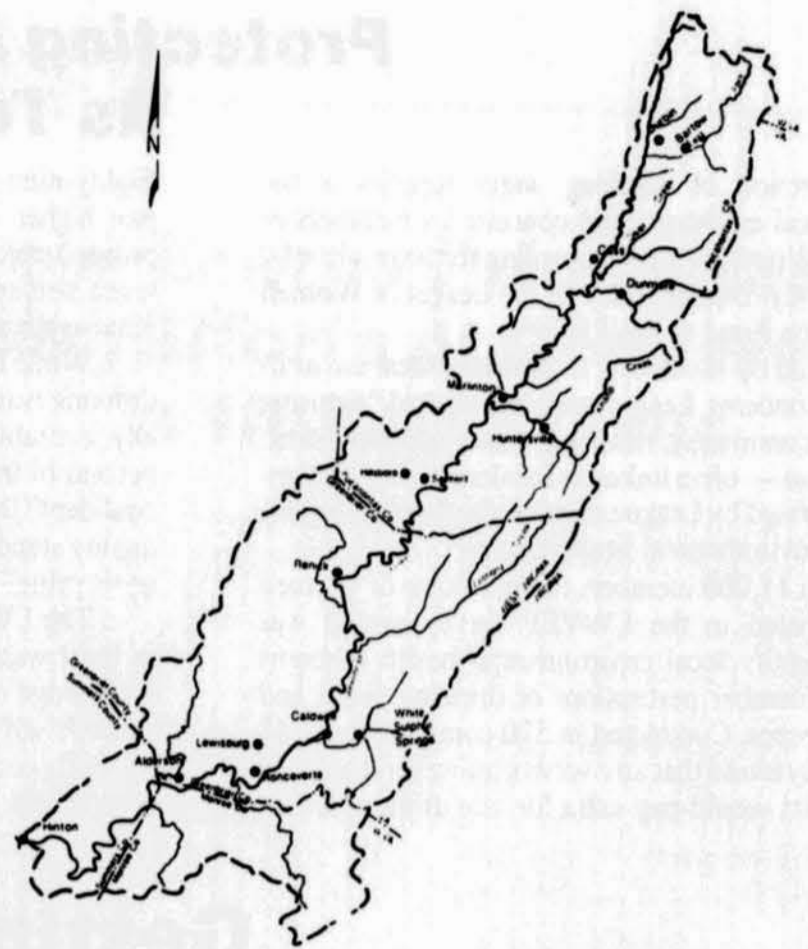
William E. Sinozich for
Donald W. Herndon
Chief, Planning Division
U.S. Army Corps of
Engineers, Huntington District

SITE 119 PERTINENT DATA

	DRY DAM	SMALL DAM	MEDIUM DAM	LARGE DAM
DAM HEIGHT (FT.)	200	200	220	
DAM LENGTH (FT.)	1150	1150	1250	
SUMMER POOL (ACRES)	N/A	1210	1900	NOT CONSIDERED
DRAINAGE AREA (SQ. MI.)	342	342	342	NOT CONSIDERED
REAL ESTATE ACQUIRED (ACRES)	3846	3846	4196	NOT CONSIDERED
RESIDENTIAL STRUCTURES ACQUIRED	70	70	73	NOT CONSIDERED
RIVER MILES INUNDATED BY SUMMER POOL	N/A	9	11	NOT CONSIDERED

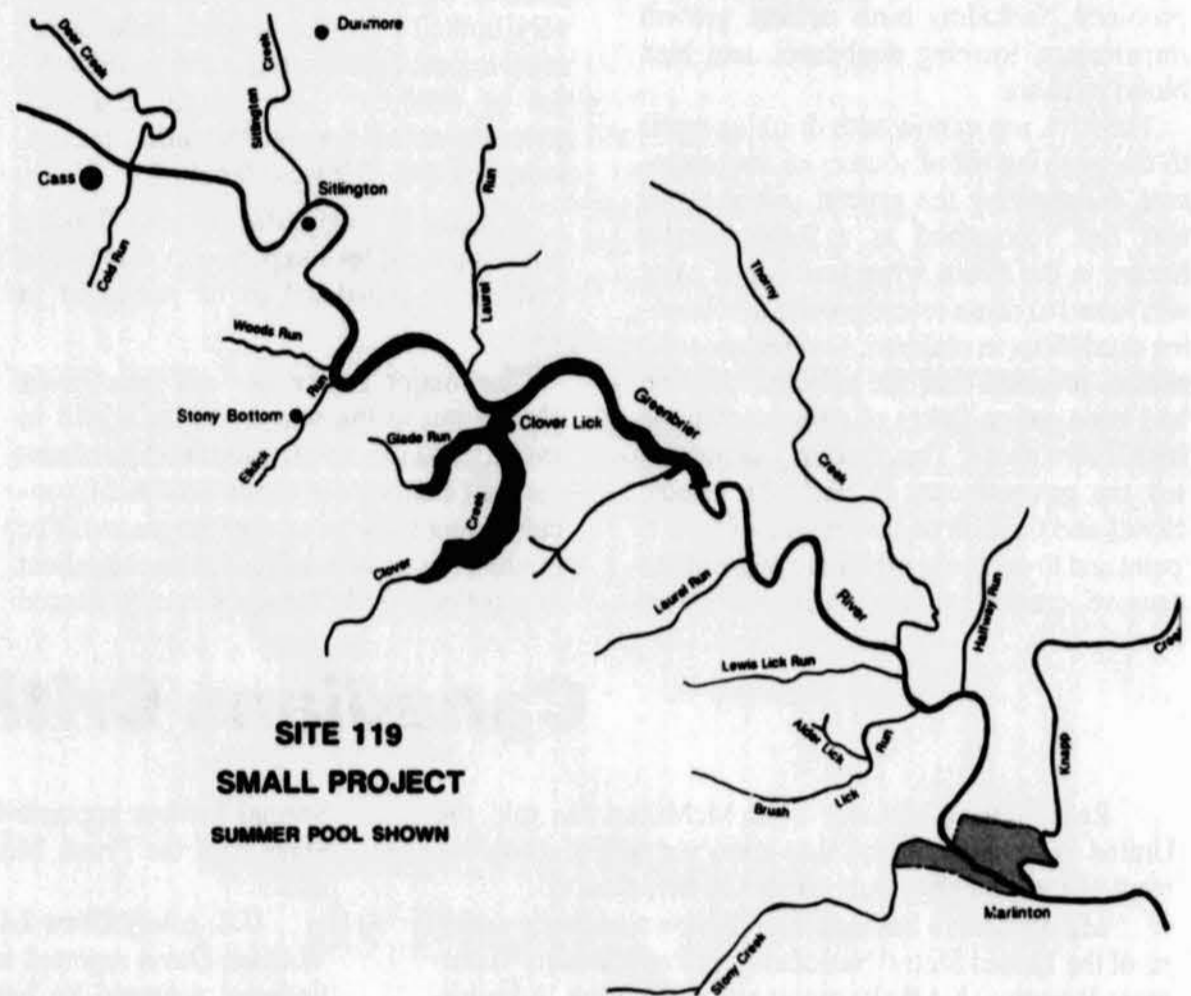
SITE 119 BENEFIT - COST SUMMARY

	DRY DAM	SMALL DAM	MEDIUM DAM	LARGE DAM
TOTAL CONSTRUCTION COST (\$)	54,169,000	60,673,000	67,046,000	
TOTAL ANNUAL COST (\$)	5,389,000	6,092,000	6,712,000	
ANNUAL FLOOD CONTROL BENEFITS (\$)	4,404,000	4,404,000	4,404,000	
ANNUAL RECREATION BENEFITS (\$)	0	908,000	1,093,000	NOT CONSIDERED
OTHER ANNUAL BENEFITS (\$)	716,000	812,000	899,000	NOT CONSIDERED
TOTAL ANNUAL BENEFITS (\$)	5,120,000	6,124,000	6,396,000	NOT CONSIDERED
NET BENEFITS (\$)	(269,000)	32,000	(316,000)	
BENEFIT - COST RATIO	0.95	1.01	0.95	

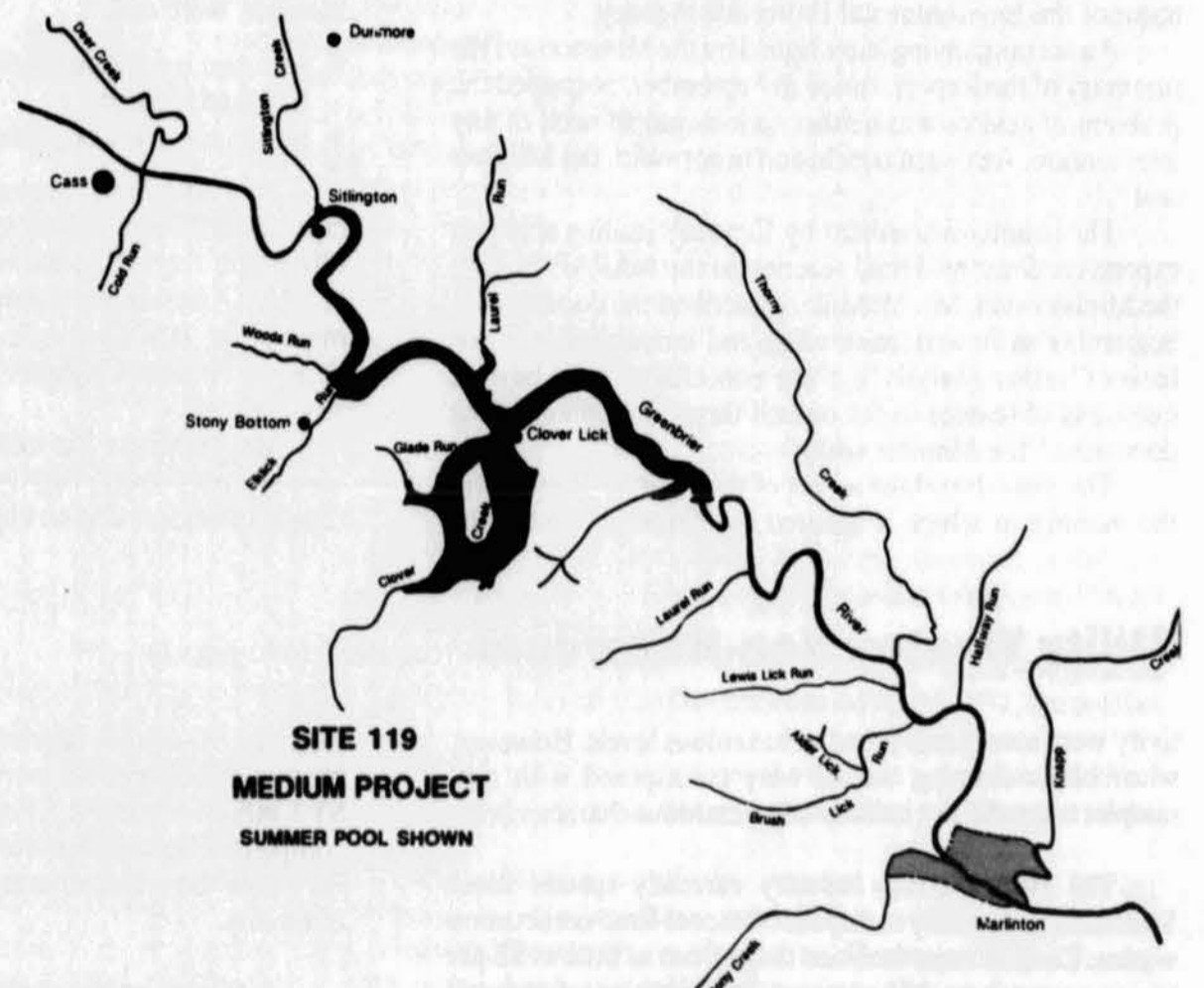


GREENBRIER RIVER BASIN
WEST VIRGINIA

PRELIMINARY STUDY DATA FEBRUARY 1968



SITE 119
SMALL PROJECT
SUMMER POOL SHOWN



SITE 119
MEDIUM PROJECT
SUMMER POOL SHOWN

Protecting Drinking Water Ranked As Top Local Priority

The protection of drinking water supplies is the number-one local environmental concern for members of the League of Women Voters, according to the results of a nationwide survey released today by the League of Women Voters Education Fund (LWVEF).

When asked by the survey to prioritize local environmental health concerns, League members ranked "ensuring the safety of community drinking water supplies" first. Hazardous waste — often linked to drinking water contamination — was rated by League members as the most important national environmental health concern.

More than 11,000 members of the League of Women Voters participated in the LWVEF survey, which was designed to identify local environmental health concerns and to assess member perceptions of drinking water and water-quality issues. Conducted in 570 communities in 48 states, the survey found that an overwhelming percentage of League members would pay extra for safe drinking water.

Eighty-nine percent of those surveyed would be willing to pay higher water bills to remove a suspected (but not proven) cancer-causing agent from drinking water. Twenty-seven percent would pay an additional \$20 per month to remove the suspected carcinogen.

While League members are concerned with protecting drinking water supplies, their concern is balanced by generally favorable reviews of current water quality. Seventy-six percent of the survey's respondents are at least "somewhat confident" that their utility is meeting federal and state water quality standards, and 73 percent considered their water "a good value" after weighing cost against water quality.

The LWVEF survey found, however, that confidence in local water quality is not always based on a thorough knowledge of drinking-water issues and facts. Among the survey's self selected sample of League members, who are generally considered well informed on community issues, 20 percent did not know if their drinking water came from

ground or surface water, 25 percent could not estimate the average monthly cost of their tap water, and a surprising 57 percent could not identify the most serious health contaminant in drinking water.

The perceptions survey made public today was designed to prepare League members for the LWVEF Water Quality Issues Survey — the first nationwide community-based survey of drinking water conditions. The LWVEF will use the results of this second survey to assist local chapters in their efforts to design model educational projects addressing water-quality issues and concerns.

Support for the League's Safe Drinking Water Project has been provided by the William H. Donner Foundation, the Overbrook Foundation, Texaco, the General Waterworks Corporation and the U.S. Environmental Protection Agency.

Getting The Lead Out

A recent study by the Environmental Protection Agency has reported that some public water systems around the United States contain levels of lead exceeding the national standard for safe drinking water. High exposure to lead can cause a host of medical problems, including birth defects, growth impairment, learning disabilities, and high blood pressure.

The EPA report now adds drinking water to the growing list of sources of lead exposure endangering the general public. Lead was first recognized as a public health hazard in the 1960s when lead-based paint was found to cause severe growth and learning disabilities in children. Several scientific studies revealed that the affected children had been eating flakes of paint containing high levels of lead. This discovery ultimately led the governments of both the United States and Canada to ban the use of lead in paint and to carry out expensive programs to remove cracked and peeling lead-based

paint from homes.

These findings soon directed investigators to other household sources of lead, ranging from the solder used to seal some "tin" cans to the lead used in making some kinds of pottery. Scientists also learned that even very limited exposure to lead could cause neurological damage and learning disabilities in children. Consequently, the two governments have worked to eliminate each source of lead as it was identified.

A study by two EPA scientists linking environmental lead exposure to deafness in children is scheduled to be published in May.

One major source of lead now being phased out in the two countries is lead in gasoline. As cars and trucks burn leaded gas, the lead escapes into the environment, contaminating both the air and the ground. The gradual elimination of lead as an ingredient in gasoline already has significantly reduced

a major source of lead exposure for most people.

Frustration with the case-by-case approach lead hazards, however, has led Canada to conduct a comprehensive study of public exposure to lead from all sources, including lead in gasoline, paint, drinking water, and industrial wastes. The report, written by the Royal Society of Canada, proposed a wide-ranging program to reduce exposure to lead from these sources. This plan is now under consideration by Canadian authorities.

U.S. efforts currently focus on identifying and reducing sources of lead in drinking water. The recent EPA report concluded that most lead in U.S. drinking water comes from the solder used to bind water pipes together. When this solder is exposed to soft acidic water, it begins to dissolve, adding lead to the water. Investigators for EPA concluded that water quality could be improved by installation of simple filtration techniques

in home water systems to reduce the water's acidity.

Legislation adopted last year offers a partial solution to lead-contaminated drinking water in the U.S. The Safe Drinking Water Act of 1986 bars the use of lead-containing pipes and lead-containing solder in the future installation or repair of public water systems. The bill does not, however, require retrofitting of older water pipes.

In Canada, the RSC recommended that government regulators monitor lead levels in drinking water collected in roof-top cisterns lined with lead or pumped from private wells and water systems not subject to municipal treatment. Canadian public water systems generally are not affected by lead contamination. Canadian officials are examining the extent of lead contamination from solder and from pipes in plumbing systems in older houses.

Canadians Criticize Rain Report

Environment Minister Tom McMillan has told the United States government that a key element of its assessment of the acid rain problem should be discarded.

Mr. McMillan has sent Canada's own scientific analysis of the United States' National Acid Precipitation Assessment Program (NAPAP) report to Lee Thomas, Administrator of the Environmental Protection Agency.

An accompanying letter signed by the Minister said the summary of the Report, issued in September, portrayed the problem of acid rain as neither serious nor in need of any intervention. Any such conclusion is not valid, the Minister said.

The counter-assessment by Canada's leading acid rain experts confirms his initial reaction to the NAPAP Report, the Minister said. Mr. McMillan described the document in September as flawed, misleading and incomplete. On the basis of further analysis "... our concerns now go beyond questions of science to the overall thrust and intent of the document," the Minister wrote.

The most disturbing aspect of the NAPAP Report was the manner in which it ignored the findings reached by

Special Envoys appointed by the President of the United States and the Prime Minister of Canada, Mr. McMillan said.

U.S. envoy Drew Lewis and former Ontario Premier William Davis reported in January, 1986. Their principal findings, accepted by both the President and the Prime Minister, were that:

- acid rain is a serious environmental problem in both the U.S. and Canada;
- acid rain is a serious trans-boundary problem.

NAPAP was established by Congress in 1980 to undertake research on the causes and effects of acid rain. Senior officials in the U.S. administration had indicated that the NAPAP Assessment Report would be used in the development of the U.S. Domestic Policy Council's recommendations to President Reagan on a Canada/U.S. Acid Rain Accord.

Mr. McMillan has told the U.S.'s most senior environmental administrator that deficiencies in the NAPAP Report should invalidate it as an element in developing the Admin-

istration's response to the acid rain problem.

Other deficiencies in the Report that the Minister drew to Mr. Thomas' attention include the following:

- the record of sulphur dioxide emissions since the turn of the century was seriously understated;
- the forecast of future emissions assumes an unrealistic 300 percent increase in U.S. nuclear power generation;
- criteria chosen to define the extent of damage to lakes were selected to minimize the seriousness and geographic extent of the problem;
- a NAPAP Report assertion that lakes and streams are at or near a steady state of acidity contradicts findings of the U.S. Electric Power Research Institute, the Ontario Ministry of Environment and the EPA itself.

The U.S. Congress recognized the serious trans-boundary dimensions of the problem in the mandate it gave to NAPAP officials, Mr. McMillan pointed out. "The NAPAP Report, however, failed to reflect that recognition," Mr. McMillan said.

Utility Wastes Non-Hazardous (continued from page 1)

sivity were sometimes found at hazardous levels. However, when boiler-cleaning wastes were co-disposed with ash, samples taken did not indicate any hazardous characteristics.

The electric-utility industry currently spends about \$800 million annually to dispose of its coal-fired-combustion wastes. Costs at most facilities range from as little as \$2 per ton to as much as \$31 per ton. The addition of controls

typically required at regulated hazardous-waste facilities to prevent leaching could increase the costs to \$70 per ton, or \$3.7 billion annually. EPA data indicate that, due to the competitiveness of the industry, an increase in disposal costs may slow the consumption of coal and increase the cost of electricity.

A 60-day public comment period will be held on the

report, called the "Report to Congress: Waste from the Combustion of Coal by Electric Utility Power Plants." In addition, two public hearings will be held, one on April 26 in Denver and one on April 28 in Cincinnati. Copies of the report will be available soon from the National Technical Information Service. Ordering information and additional information on the public hearings will be published in the Federal Register within the next two weeks.

NEWS BRIEFS

National Group ranks W. Va. 32nd In Six Environmental Areas

A national environmental group has ranked West Virginia 32nd among the 50 states for the quality of six environmental programs, from surface water protection to land use planning. The Fund for Renewable Energy and the Environment last year ranked West Virginia 49th among the states for its programs in six other areas, including air pollution, ground water protection and hazardous waste management. State officials disputed that ranking.

States were given from one to 10 points for policies and programs in six areas. Massachusetts, Wisconsin, California, New Jersey and Connecticut were the top-ranked states. The study by the Washington group points out that cutbacks in federal environmental protection have placed greater demands on state governments.

Many policies and standards can be enacted for low governmental cost, such as bans on certain pesticides, increasing fuel efficiency standards for cars, land use planning goals and no-smoking laws, the report says.

State policies vary widely," said Denis Hayes, chairman of the group. "But the general problem is that 99 percent of all government spending is now going for 'end of the pipe' pollution control. If greater liability is shifted to the polluters it will encourage less waste, help reduce state costs and ultimately provide greater protection."

West Virginia was given six points for its program in protection of surface water in rivers and lakes. The ranking included the percentage of waste dischargers not in compliance with their permits and the number of federal enforcement actions.

West Virginia received four points in its program to reduce pesticide contamination. Unlike some other states, West Virginia has not banned pesticides or invested heavily in alternative biological pest controls.

In land use planning, West Virginia received three points. It has a relatively low proportion of communities using zoning and has no programs to oversee siting of power plants or hazardous waste facilities.

West Virginia received three points out of 10 in its efforts to eliminate indoor pollution from tobacco smoke, radon, asbestos and lead.

In terms of highway safety, West Virginia received five points, based on the number of traffic accidents, the motor vehicle inspection program, number of deficient bridges and drunk driving laws, among other factors.

Producing energy creates environmental problems, from nuclear waste to acid rain, and some states have factored in environmental damage costs into their energy plans. West Virginia received three points in the category of energy pollution control.

The Charleston Gazette, 2/25/88

State To Get Nearly \$3 Million For Fish, Wildlife Programs

A record \$265 million will be distributed nationally to pay for fish and wildlife restoration programs, Secretary of the Interior Don Hodel has announced.

West Virginia's share of federal wildlife restoration and hunter education revenues this year will be \$1.39 million, while \$1.55 million in federal funds will be used by the state for fish restoration.

Money for the two restoration programs is raised through federal excise taxes on hunting and fishing equipment and motorboat fuel.

Distribution of the fish and wildlife restoration funds is based on a state's land and water area and the number of fishing and hunting licenses sold in each state.

The money is used to acquire and improve fish and wildlife habitat, to develop fish and wildlife management programs, and to pay for research.

The Charleston Gazette, 3/30/88

Breeding Bird Atlas Update

The 1987 Breeding Bird Atlas season produced some interesting records. For several years yellow-rumped warblers had been observed singing on their territory on Spruce Knob and at the Guardineer fire tower. A recently fledged member of this species was sighted at Spruce Knob, confirming this bird as a breeder in West Virginia. While checking nest boxes put up for study on the endangered northern flying squirrel in the Dolly Sods area, a Nongame Program biologist discovered an active saw-whet owl nest, the first nest of this species ever found in the state. A "block-busting" weekend held at Panther State Park in Logan County yielded both Brewster's and Lawrence's warbler hybrids of the blue-winged and golden-winged warbler. Other records from the Huntington District included: numerous Swainson's warblers, a prothonotary warbler, several blue-winged teal nests, a red-headed woodpecker, grasshopper sparrow, king rail, and a Cooper's hawk nest. Two confirmations of loggerhead shrike nests were also reported from Berkeley County.

The Breeding Bird Atlas Project will enter the fifth year of field surveys in 1988. Volunteers are still needed. For more information, contact Dr. A. R. Buckelew, Jr., Biology Department, Bethany College, Bethany, West Virginia 26032, or call (304) 829-7641.

Nongame News, Winter 1988

Low Energy Prices Seen Hurting Efforts At Conservation In United States

Washington (UPI) — Low energy prices, especially for oil, are undermining conservation efforts in the United States and causing industry to waste billions of dollars, a study by the Worldwatch Institute said Saturday.

The study, "Building on Success: The Age of Energy," said, "If the United States used energy as efficiently as Japan does, for instance, it would lower the national fuel bill by \$200 billion."

The report also emphasized the role improved energy efficiency can play in reducing U.S. dependence on oil imports.

"The only realistic means of avoiding another oil crunch in the '90s is to invest heavily in energy efficiency — largely in transportation," it said, adding improved fuel efficiency of American automobiles alone had reduced U.S. gasoline consumption by 20 billion gallons per year from 1973 to 1985.

The report noted the International Energy Agency determined in 1987 that energy efficiency in most western industrial nations improved between the 1973 Arab oil embargo and 1985 — with the United States improving by 23 percent, West Germany 18 by percent, and Australia and Canada by 6 percent.

But they were far outdistanced by Japan, where energy efficiency improved by 31 percent.

"Today, however, this progress is being undermined by a period of low energy prices, and an accompanying spirit of complacency," the study said. "At \$18 per barrel, the real price of oil in early 1988 was lower than at any time since the 1973 oil embargo — 75 percent below the peak levels of 1981."

It said both government and private energy efficiency programs have been scaled back, with official statistics for 1987 showing "continuing but slower improvement" in efficiency.

The report said efficiency improvements have been "most impressive" in industry, which seeks ways to lower high fuel costs. Improvements in buildings have been slower, it said.

Improvements, it said, have included automobiles that can get up to 100 miles per gallon of gasoline, 18-watt minifluorescent light bulbs that provide as much light as a 75-watt incandescent bulb, double-glazed windows, and more efficient refrigerators, freezers and air conditioners.

The study also sought to allay any concerns about changes that improved energy efficiency might bring.

"Energy efficiency is not simply 'conservation,' with its Spartan connotations of lowered thermostats and restricted driving," it said. "Energy efficiency is about getting the same or better services from less energy by substituting ingenuity for brute force. After all, people want light and heat, not electricity and gas."

Improved efficiency is also important for the environment.

"Efficiency can help reduce oil imports, limit urban air pollution, control acid rain, and head off global warming from the buildup of atmospheric carbon dioxide," the authors said.

Sunday Gazette-Mail, March 27, 1988

Ozone Disappearing At Faster Rate

Washington (UPI) — The layer of ozone that protects Earth from ultraviolet radiation is disappearing at a greater percentage than many researchers thought, and the notorious spring-time ozone gap over Antarctica now occurs year-round, a panel of scientists reported Tuesday.

The panel, convened by NASA, said the average decline in ozone had been thought to be 1 percent less, a figure that had little meaning because it was so hard to measure.

But now, measurements starting in 1969 have shown ozone is disappearing between the latitudes of 30 degrees and 60 degrees north — a band covering most of North America, Europe Asia and the Soviet Union — at 1.7 percent to 3 percent a year, said Robert Watson, program manager of NASA's upper atmosphere research program and chairman of the special panel.

"Overall, things are worse than we thought," and Watson following a news conference at NASA headquarters. "The long-term decline since 1969 had not been recognized."

The ozone hole, which normally appears in late August or early September and lasts through October — the antarctic spring — this year lasted through December, Watson reported, with declines in ozone averaging 5 percent.

"We believe it is a year-round phenomenon," he said.

The ozone hole is blamed on man-made pollutants, primarily chemicals known as chlorofluorocarbons, or CFCs, widely used in manufacturing, but banned in the United States since 1978 as propellants for compounds in spray cans.

The scientists also found that the disappearance of ozone since 1979 was not as great as was predicted by some of the data they analyzed, and that between now and 1991, the decline may stop entirely or reverse itself.

The reason is related to the sun. Ultraviolet light from the sun has a paradoxical effect — although it breaks down CFCs and causes ozone damage, its reaction with oxygen in the atmosphere creates ozone.

The sun's activity increases and decreases in a cycle that averages about 11 years. During the maximum phase, output of energy — including ultraviolet radiation — reaches a peak, and is expected to increase ozone enough to offset the effects of pollution. During a solar minimum, as was experienced during 1986, ozone drops, as it will after the next solar maximum.

The Charleston Gazette, March 16, 1988

Coyotes In "Old West" Virginia

by Bill Grafton

WVU Extension Wildlife Specialist

A very popular symbol of the "Old West" was the yipping song of the coyote at sunset. Those "Old West" coyotes are now a part of West Virginia's wildlife. The Mexican-Spanish pronunciation is "ki-o-tee" while the Europeans tend to call this crafty member of the dog family the "ki-ot." Whatever you call him, the coyote is here to stay.

Coyotes are about 2 feet tall at the front shoulders, are light gray to dull yellow and have black tips on the outer hairs. The average life of a wild coyote is 2-3 years. Females will weigh about 30 pounds and will normally have a litter of 5-7 pups when she is 2 years old. Males weigh around 35 pounds. Coyotes will breed with domestic dogs and produce a larger offspring called the coydog.

The favorite foods of coyotes are rodents and rabbits. They will also eat insects, melons, berries and fruits, as well as, carrion from dead wildlife or livestock and poultry.

Coyotes are real individuals just like humans. Some will be desirable, some hardly noticed, and some will be downright bothersome. The most bothersome in West Virginia will be those who develop a taste for sheep, poultry, and small calves. This taste will not endear these "individual coyotes" to farmers in West Virginia. Hunters will be unhappy when they see coyotes killing small game, rabbits and even deer fawns.

Trappers will be quite happy because



coyote pelts are frequently used to trim valuable fur coats and parkas. Many folks, as they sit around a campfire in the high mountains, will surely enjoy the coyote's yipping song. It will also be a treat to watch the cunning coyote intently pouncing on a mouse in the leaves or grass.

Coyotes have been common in Pennsylvania, Tennessee and the Midwest for the past decade. They have gradually moved into West Virginia and have been reported from most of our eastern counties and several counties along the Ohio River. Coyotes can expand rapidly into new areas with suitable dens, brushy cover, and stable food supplies. Coyotes run in loose family groups during the summer and fall. As food becomes scarce in late fall, the young coyotes disperse to seek new homes. They move an average of 25 miles, but a move of 40-50 miles is fairly common. Thus, the coyote has come to the mountains of West Virginia.

You can be sure the coyote will be controversial. Farmers and some hunters will probably demand extermination of the varmint. But it won't happen; the coyote is simply too smart and tricky for the best hunters, trappers, dogs, or poisons or snares. We will have to learn to coexist with this animal that will frustrate some but delight others.

Book Review

by Bill Roody

Mushrooms

MUSHROOMS: A Quick Reference Guide to Mushrooms of North America by Alan Bessette and Walter J. Sundberg. 1987 Collier Books, NY. 174 pp. paperback \$12.95. Also available in hardcover \$24.95. A Macmillan Field Guide.

The primary aim of a modern mushroom field guide is to enable the user to confidently identify at least the majority of common species which are encountered. Although simply stated, this is far more difficult to achieve considering the vast array of wild mushroom which exist in North America and the oftentimes subtle differences between them. The challenge for authors is to select representative species, describe them cogently while drawing attention to look-alikes, plus devise an orderly method for distinguishing them. It is also important to provide good quality illustrations to accompany the written descriptions. The degree of proficiency in meeting these challenges ultimately determines the success of a work.

Keeping in mind that the Macmillan guide is intended mainly for the novice, it does succeed for the most part. Over 200 species are described and illustrated (color photographs) plus many more are mentioned in the discussion of similar species. The descriptions are clear and accurate, and the observations regarding look-alike species are particularly helpful. Edibility is noted for all species mentioned. One surprise here is that Frost's Bolete (*Boletus frostii*) is regarded as edible whereas in other guides it is often considered suspect.

Identifications are achieved by comparing the mushroom in hand with the photos and written descriptions, having first narrowed the possibilities to one of several conceptual groups by which the book is arranged. There are no keys.

The quality of the color photos ranges from fair to very good. Most are crisp in detail, but a few are reproduced too small to be effective, and some appear to suffer from slight

underexposure. This is most evident in the studio shots which have a solid black background. The natural habitat photos are fewer and more visually interesting.

Unusual features include instructions for making a chemical test on mushroom spores (without using a microscope), and a tabular chart of spore characters for over 500 species. There is also a detailed check list of field characters which will help the mushroom sleuth focus on important aspects of identifications conveniently located opposite the illustrations. The authors are also to be commended for using restraint in creating new "common names," a confusing practice which has marred some other recent mushroom guides.

This well-written guide is a likely choice for any would-be mushroomer. Its appeal is broadened by the special features mentioned and by the inclusion of some lesser known species that are not described in other popular field guides.

The 2nd Annual

GREAT GREENBRIER RIVER RACE

Date: May 7, 1988

Starting Time: 12 Noon

Registration From 10 am

RELAY RACE ON THE GREENBRIER RIVER TRAIL FROM MARLINTON TO BEARD
APPROXIMATELY 18 MILES.

5 MILES BOATING, 5 MILES RUN, 8 MILES BIKE

Each Team Will Need: One Cyclist (Fat Tire Bike), One Boater (Canoe or Kayak), and One Runner.
Helmets and Life Jackets Required.

THE RACE START AND REGISTRATION WILL BE AT THE PARK ON THE EAST SIDE OF THE BRIDGE IN MARLINTON.
AWARDS AND A PICNIC WILL FOLLOW IN BEARD. BRING A PICNIC, YOUR FAMILY AND FRIENDS.

A Donation of \$7 Per Person Includes Prizes and A T-shirt.

FOR MORE INFORMATION ON THE RACE, CALL (304) 572-3771 OR 653-4722.