Brief History of The Surface Mining Control and Reclamation Act
Submitted by Don Gasper*

The Federal Office of Surface Mining (O.S.M.) was created by the Surface Mining Control and Reclamation Act (S.M.C.R.A.) in August 1977. It is now twenty years old.

When President Jimmy Carter signed the bill, he invited 200 grass roots citizens to the Rose Garden. They had experienced the environmental damage of coal extraction and been working even in Washington (through two earlier venues prior to Carter). Their earlier cry, "Ban strip mining, abolish it", had changed to control and reclamation, and the promise seemed to be in this Control and Reclamation Act (SMCRA). It seemed that this detailed Act would reign in this long out-of-control industry everywhere and eveny throughout the land.

Responding to the invitation, citizens from the mountains of Appalachia, the prairies of the midwest, and the plains and mountains of the far west came - scene brought hand made gifts from their hearts for the President to somehow further show their appreciation and importance and promise of this moment - a quilt, jams, a woodcarving.

see History, page 3

Twentieth Anniversary of SMCRA
by Bill Reed

The steep green hills, so typical of West Virginia, rise up from the valley of Buffalo Creek in the town of Kistler. A plain square granite monument is planted there next to the road that leads up to where the impoundment gave way on February 26, 1972. It was only twenty-five years ago that disaster struck. Whole families were obliterated - of the 125 persons honored in death with this monument are the names of six Adkins, eight Baileys, six Dillons, seven Lesters, six Osbornes, six Waugh. Of the unidentified -- two baby boys and one baby girl.

On August 2, 1997 at this site perhaps five-hundred persons, perhaps more, gathered from Alabama, Colorado, Montana, New Mexico, Tennessee and Wyoming. From states adjacent to West Virginia, ecode from Ohio, see 20*, page 3

Strip Mine Issues Come to the Fore

Make plans and mark your calendars NOW. The West Virginia Highlands Conservancy will hold its Fall Review, celebrating our 30th year, on October 10-12, Camp Kidd, Parsons, Tucker County, WV.

We will gather on Friday evening to enjoy a snack and share stories, videos, slides, music, and more.

Saturday, after breakfast, we will take our box lunches and head into the field for outings. The Forest Watch Coalition has offered to lead a hike near the endangered Blackwater Canyon, threatened by logging which may already have started by that time. The weather and the colors should still be beautiful.

The Main Event will take place Saturday night after dinner when our old friend, Rick Webb, will make a presentation on his research on the acidity of surface waters in nearby Otter Creek and Dolly Sods Wildernesses. Rick has conducted research on acid precipitation for several years at the University of Virginia. Prior to that, Rick lived with his wife and family in West Virginia. He served on the Board of the Conservancy and founded WV Mountain Stream Monitors. Please plan to come and renew acquaintances and hear Rick discuss his world-class research.

Atten-shun! FALL REVIEW

On Sunday, after breakfast, the Conservancy will hold its Fall Board meeting. All members and guests are welcome.

Camp Kidd is located six miles north of Parsons. Formerly the county poor farm, it is now a golf course and privately-owned camp open to the public, similar to a 4H camp.

Lodging will cost $11 per night for adults and $6 per night for youths under 18. The cost of meals has yet to be determined but should be quite reasonable. Vegetarian options will be available at all meals.

We plan to organize a phone tree to take reservations for the weekend. It is essential that we know how many are coming and when so we can plan the meals efficiently. It costs the Conservancy more if we don't know reasonably accurate numbers ahead of time. That's because we have to estimate generously so as not to fall short. We then pay for all the meals whether used or not. You can help by calling or writing to Richard to let him know whether you are coming. You can also volunteer for the phone tree.

Please mark your calendars NOW. And we'll see you there for a fun weekend.
Too Cozy an Atmosphere
by John McFerrin

What makes public participation in the regulation of surface mining important? Why should people spend their free time (such as it is) cataloging inspectors, supervisors, and bureaucrats into enforcing the law. Shouldn't the regulators just do it on their own?

The truth is that they don't just do it on their own. Everyone who has had any contact with our regulators has experienced inspectors who are unresponsive, inspectors who spend their days looking for excuses for the companies, inspectors who look for reasons not to write violations, supervisors who look for ways to excuse violations of the law.

Were they born that way? Is there some genetic defect that compels inspectors to search for reasons to be "understanding" with the coal industry? Is there something in their childhood that drives them to want to "work with" the industry?

Of course not. They didn't finish school and say to themselves, "I would like to get a job where I will be able to stand idly by while the coal industry rips up the land." They didn't say, "I would like to spend my career making excuses for the biggest corporations in the world." They didn't have as a career goal explaining to citizens that, while they would surely like to help, their hands are tied.

They weren't born that way. They got that way because it is in the air at the Division of Environmental Protection.

It's true, of course, that West Virginia has been regulating mining for decades. In all that time there may have been permits issued or violations ignored because of a well placed campaign contribution, a timely call from a politician, or even a little gift to the right person. But that's not the real problem. Even if there has been the rare and isolated case of corruption, the real problem is the entire culture of the Division of Environmental Protection.

The guiding principle of the Division is this: Nobody ever got fired for being too lax in enforcement. Nobody ever got fired for recommending that permits be granted.

The Division developed those guiding principles because they hear from the coal industry all the time. Their daily work is with people from the coal industry. They socialize with people from the coal industry. It is like a tree on a windswept mountainside. It wasn't born with all its branches pointing one way. It grew that way because of the constant force in one direction.

That's what makes public participation so important. The public is the only force in the other direction. It is the only force to push the Division toward regulation and away from excuse making.

Everyone who pushes the Division has his or her own approach... Some people sue. Some read files and ask questions. Some picket. Some publicize. Some chat quietly; some express their opinions with vigor and enthusiasm. There is a place for all approaches. But if there is going to be regulation in this state, the citizens have to remain involved.

Public involvement is often a frustrating and thankless job. But it is a job that has to be done. It's the force that pushes in the other direction.

Bending with the prevailing winds is the easiest thing. We can't do that. We have to keep at it. It is the only thing that keeps the state regulators from leaning and leaning until they lie flat before the coal industry.
President Carter emerged from the Oval Office to the veranda and the milling crowd hushed. They parted for him, as he progressed to a small table. He greeted them. He spoke sincerely, quietly, for all could hear. He spoke without pride. He under-stood, and he said he was privileged to be signing the Surface Mining Control and Reclamation Act into the law of the land. He seated himself and invited them to gather around. It was hushed. Tears welled up in the eyes of many. A collective sigh went out as he finished, and they clapped and laughed and cried and hugged with joy.*

Now, twenty years later, the awful destruction of "Mountain Top Removal", literally mountain top removal, that lowers mountains by 500 or more feet - as depicted in this August 11th's issue of U.S. News and World Report - may cause citizens of this land to again cry "Abolish face mining!" What is shown in these pictures would seem surely should not be happening anywhere in this land. Has all the suffering endured without recourse, and the hard, hard work to get this law in place been for nothing?

How could this be? At the continual urging of the coal industry the recent U.S. Congress has cut back the funds of the Federal Office of Surface Mining. Congress even tried to abolish it! The agency created to control this industry, which can be so terribly destructive of environmental and living quality, has been crippled.

Today, again, if we do not "Abolish surface mining" we must control it. This protective law of the land must not be weakened, and this Agency must be fully funded. The need is as great as ever, or even greater.

* Taken from an article by Carolyn R. Johnson of Colorado (who was at the signing in 1977) in The Citizens Coal Council Reporter, Aug 98.

Pennsylvania, Tennessee and Virginia "poured in..." This gathering was sponsored nationally by the Citizens' Coal Council, and locally by the West Virginia Organizing Project. The purpose of the gathering was to remember the dead, to celebrate the passage of The Surface Mining Control and Reclamation Act twenty years ago, and to do what was necessary to insure that the honored dead would not be further dishonored by the failure of the Federal and State agencies to properly enforce the SMCRA law.

Opening prayers by a local Catholic priest and a woman from the Navajo Nation stressed the point that the way to best honor the dead would be to create more equitable environmental justice and change the economic system to one more sensitive to needs of the people. Ellen Pfister, Citizens' Coal council President, officiated. Among the speakers were Hon. Nick Rahall, US House of Representatives and Louise Dunlop, both of whom received awards for their work in the passage of the SMCRA law. Rep. Rahall quoted Mother Jones in his speech,"We are here to mourn the dead and fight like hell for the living." Concerning environmental justice for those who live in and are impacted by strip mining, he also said, "We are not here to ask for it, to request it, we are here to demand environmental justice in our coalfields and..." we will not stand down under any circumstances, we believe that SMCRA provides us with some federal rights.

After the Memorial service and the speeches, the CCC and the WVOP provided a picnic and pig roast for the participants. The roasted pig was given the moniker, "Bruce" (for Bruce Babbit), and those who partook of the porker were able to unload some of their hostility when they carved a chunk out of him.

The SMCRA was enacted because of the public sentiment and political pressure that grew out of the outrage of the Buffalo Creek disaster. The governmental powers have failed to give more than lip service to SMCRA during the past three administrations. What other major disaster is required to galvanize the public into demanding that the US Congress to show more than token recognition to the citizens who live around strip mines? How many more must die to bring home the necessary concern so that the proper attention to the enforcement of SMCRA by the Clinton and future administrations be given?

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Editor's Note: In a recent issue, we reported that the federal Office of Surface Mining had given the West Virginia Highlands Conservancy an award for citizen participation in the implementation of the federal Surface Mining Control and Reclamation Act. Because of the recent deficiencies of that office in enforcing the law, it was with some reluctance that we accepted the award. What follows is the Conservancy's acceptance of that award.

Ms. Kathy Karper
Office of Surface Mining
1951 Constitution Ave. NW
Washington, D.C. 20240

Dear Ms. Karper:

On behalf of the West Virginia Highlands Conservancy, let me thank the Office of Surface Mining for the Citizen Award. Many of our members have worked long and hard to make the Surface Mining Control and Reclamation Act a success. It is always gratifying to be recognized.

Of course, the Conservancy is not the only organization that deserves recognition. Many people deserve to be recognized. From a citizen's perspective, participation in the regulation of surface mining is a difficult and often frustrating job. Anyone who does it deserves recognition.

In accepting this award the Conservancy does have some regrets.

First, we regret that all citizens who work to make the Act's promises a reality could not get an award. They are doing difficult, important work. They all deserve recognition.

More importantly, however, we regret that the Office of Surface Mining is not doing more to enforce the Act. Awards are nice, enforcement is better. Given the choice, we would prefer enforcement. Even with the award, we still expect enforcement.

I can remember what things were like before the Act. There is no doubt that the Office of Surface Mining has accomplished some things over the years.

At the same time, however, mines are still burning streams at an increasingly alarming rate. They still fill valleys. They still create those awful fills with little more than a hope and a prayer that the material is durable and the fills stable. Mines still create acid mine drainage. We still have a special reclamation fund that is sorely under funded. We still have a post mining land use program that is a cruel joke. Instead of useful land, we have land that is left useless for generations.

We appreciate the award. We would appreciate more your understanding that the job is not finished and your cooperation in working with us until the job is done.

Best wishes.

Sincerely,

John McFerrin
President
EDITORIAL

Thoreau was a visionary whose writings reflect his awareness of the environmental destruction yet to come. Were he alive today he would be both amazed and appalled. His admonition to the people of his times was to “simplify, simplify,” meaning to cut out all the extraneous do-dads that clutter up our lives whether these be material things or unnecessary or harmful activities. Thoreau was classified by the philosophers of the following era as a transcendentalist, which means that he could find satisfaction and meaning in his acute awareness of the minutiae of the natural world around him while never losing sight as to how this fit into a Whole of existence. He was unique in that he seemed immune to getting bogged down in the minutiae while still being able to take it in. It is as if in each little flower or bug that he scrutinized he could holographically perceive the whole Universe in it, intuitively knowing how fit into the Whole.

It is not my purpose here to offer any kinds of theological pronouncements, yet it does appear to me that it is almost as if he perceived God directly without having to delude himself with the religious beliefs of the day.

Thoreau and his life and writings are considered curious oddities these days. So many persons pay lip service to what they consider to be his contribution without demonstrating that they have any real notion of what Thoreau was all about. It is as if they say, “Thoreau? Oh, yes,” while carrying a copy of Walden about but not delving into its contents. Far many persons who see themselves as “environmentalists,” Walden has become the prayer wheel of their theology. If one truly “got into” what Thoreau was all about, one would take time out to examine and question every aspect of one’s life. The questions might be, “What do I really need to have a rich and rewarding life?”, “What is my place in the scheme of things?”, “What kinds of activities will add greater dimensions to my life to add to its richness and meaning?”

We do not need to live in a rude cabin and cut beans to abide by a full measure of what Thoreau stood for. Life and meaning filtering through his senses and being were uniquely individual while paradoxically being part of a great Whole. We need not emulate Thoreau, but merely get on his “wave length” so to speak, and when we do this, the questions are asked and the answers come to each of us tailored to our individuality.

Chief Seattle put it eloquently within a Thoreauvian context. “This we know, the Earth does not belong to Man, Man belongs to the Earth. Man did not weave the web of life, he is merely a strand in it. Whatever he does to the web, he does to himself.” This kind of awareness is not one guaranteed to add peace to one’s life. One must perceive deeply those admonitions we hold that are holding us captive to destructive forces, both for ourselves and for the Earth, and to be on alert at all times for the denial we use to cloud these perceptions.

Do I need a car, TV set, stereo, computer, carpet? If yes, how can I fulfill these needs with minimum impact on the Earth? Can I conserve on my use of energy and/or move towards a more sustainable energy source? (We all know that by being on the “grid” we give nurture to coal fired power plants which create havoc on the planet in so many ways. How about installing solar cells for at least part of our energy use?).
Many people have already gone
trough the above mental
exercise. Thank God they did so.
They realized that special
places are not limited to the public
lands you stand on but
are intricately linked to the adjacent
privately owned lands.
Private lands that are enhanced and
contribute to a
specialness of place. This concept is
called a viewshed.

The value of viewsheds has motivated
citizens to protect the
big picture of a special place people
organized around Mount
Vernon and with the help of the Trust
for Public Lands
stopped the shopping mall, purchased
the property, and
protected Washington's viewshed.
Disney World II was stopped
by an outraged Virginia community.
West Virginians persuaded
former governor Caperton to arrange
the purchase of the view
shed of the Cheat River. No
moonscape will now detract from
that spectacular sight.

There are several viewsheds that
define our state. We know
this is true because their photographs
grace a zillion paper
placemats in mom and pop restaurants
across the state. the
view of the Capitol Dome is one such
view. Certainly Seneca
Rocks, Blackwater Falls and the New
River Gorge are also in
this category.

Blackwater Canyon (down stream
from the Falls) is another
defining viewshed. Along the canyon
runs the popular hiking
and biking trail from Thomas to
Hendricks: the canyon is
probably one of the most
photographed spots in the state. The
problem is that only half of the
Canyon is located within the
Blackwater State Park. The other side
of the canyon is
privately owned.

The privately owned part has recently
been sold to a timber
company, the new owners plan to log
much of their side of the
viewshed and then build an exclusive
housing development
called Canyon Views Condos. Already the logging roads have been cut.

Let this sink in a minute. A rich timber
company makes money
by marring the public view and then
builds condos so that
other more fortunate people can gare
across to the unspoiled
view owned and paid for by the
public. Private owners land
values are increased while the publics
is lessened.

Tourist related businesses, The
National Forest, and outraged
citizens are trying to stop this new
corporate welfare
program. But where is Cecil? NOTE:
You may recall that at
least on paper, Cecil Underwood is
the current governor of
this state. As Governor he has
enormous power to persuade,
deny permits or arrange purchase of
the Black Water Canyon
View shed. He also has a
responsibility to provide
leadership. Many people are asking
"Where's Cecil?"

One of Cecil's political cronies, a
Tucker County State
Senator, helped broker the deal for
the timber company.
The owner of the Company is another
political supporter whose
family members contributed to
Underwood's campaign. Why is
anyone asking "Where's Cecil?"

The Black Water Canyon is indeed a
special place. It is used
and enjoyed by hundreds of thousands
of middle class people
each year. the local economy is
significantly enriched by the
hundreds of thousands of visitors. It is
time that Governor
Underwood do something more
visionary than paying back
corporate debts and begin to exercise
leadership for all
present and future West Virginians.

Within the environmental movement
we have a saying - "If
you're not outraged, your not paying
attention" are you
paying attention? Is Cecil? Call
YOUR governor at 558-2000
and ask him if he's paying attention.
Citizens’ Coal Tour
by Bill Reed

The three-day Citizens’ Coal Tour focused on strip mining and its attendant problems. The program was very well organized and conducted with the Office of the Environmental Advocate taking the lead. The West Virginia Organizing Project and the West Virginia Highlands Conservancy also were involved in the sponsorship. It was well attended with forty to fifty attendees on each of the three days.

There was a different locale for each of the three days of the Tour. The first day (on August 14, 1997) was primarily devoted to viewing actual strip mines, and the very difficult problems that can be associated with acid mine drainage (AMD). Participants viewed two strip mines in Upshur County. The annual cost to deal with the problem of AMD is so great as to question whether the extracted coal was ever worth the ongoing problem.

On August 15, participants in the Tour were presented with the extent to which strip mining disrupts people’s lives near the mining site. Not only are persons often harried by constant dust in their homes, but occasionally large rocks are hurled around people’s dwellings. The noise pollution can be severe from blasting, and from the sound of giant machines ripping apart the land, and from trucks. Nothing was said about the capacity of coal companies to turn a scenic view of green hills and streams into ugliness personified.

Displacement of people from their long-time dwelling places is common, and whole communities can be destroyed. People are pressured to sell their houses, and the local environment quickly becomes so bad from all the mining activity around that there becomes an additional incentive to sell. Most of the activity of August 15 was spent at or near the homes of those citizens who live in the vicinity of strip mines, and who have been impacted by them in negative ways. Damage to structures and pollution or loss of water from wells were common complaints. The coal companies, by and large, refuse to accept any responsibility for damages. The state agency, the Department of Environmental Protection, that is supposed to provide protection through enforcement of laws has not done their job according to coal field residents. The general feeling of these people living in the shadow of strip mining is that the state and federal agencies are “owned” by the coal companies.

The third day of the Tour was held in Charleston in a conference room in the Capitol Complex. This was intended as a wrap up on what was learned in the first two days, as a general question period to fill in the holes of the knowledge of the participants concerning strip mine issues, and to look to the future to discuss what should be done to alleviate persistent problems. The Dean of West Virginia mining issues from the West Virginia Highlands Conservancy, Cindy Rank, gave the keynote address. Her words included a review of the past and current situation of the destruction of West Virginia lands, and often its people, because of the instable lust for energy-producing coal, and a call to action to help save our state from out-of-state Grinches of Greed. The Honorable Ken Hecheley, Secretary of State, recounted his days in the U.S. House of Representatives, fighting for the safety of miners through the passage of much needed legislation. Other persons on the program included Diane Bady, President of the Ohio Valley Environmental Coalition; Roger Callboun, State Director, U.S. Office of Surface Mining. Jack Caufield, from the West Virginia Organizing Project; Perry McDaniuel, attorney who often represents pro-environment clients; John McFerrin, President of the West Virginia Highlands Conservancy, Patrick McGinley, law professor at WVU; Walt Morris, attorney from Charlottesville, VA; Paul Nyden, investigative reporter for the Charleston Gazette; John Pough, attorney from Washington State; and Wendy Raddcliff, Environmental Advocate for WVDEP.

Panel discussions after the keynote address, and rounding out the program for the rest of the day, were as follows. Paul Nyden led a forum on "The Evolution of the Surface Mining and Reclamation Act" in the morning. Two panels in the afternoon, one on "SMCRA-Where Are We Today?" was moderated by Wendy Raddcliff, and "The Future of SMCRA" was moderated by Pat McGinley. Participants agreed that the Tour was very well organized, thought out and useful, and that the selection of forum panelists was excellent. Similar programs should be planted for the future.


September 13, Ironweed Festival to benefit the Appalachian Woman’s Alliance. Noon to 10 PM at Appalachian Folklife Center, Pipetem, WV. Features Appalachian women musicians, storytellers, poets and activists. $10 per carload or $5 per person.


Calendar


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October 10-12, West Virginia Highlands Conservancy Fall Review. See front page for details.

The Highlands Voice
Book Review

Our Stolen Future. Authors: Theo Colburn, Ph. D. is a senior scientist with the World Wildlife Fund, and a recognized expert on endocrine-disrupting chemicals. Dianne Dumanoski is a respected reporter on environmental issues. John Peterson Myers is Director of the W. Alton Jones Foundation, which supports efforts to protect the global environment.

-This is the way the world ends,
This is the way the world ends,
This is the way the world ends,
Not with a bang but a whimper.

T. S. Eliot, from "The Hollow Men"

The forward to this most provocative and important book is written by Vice President Al Gore. I believe that his lending his authority as a proponent of the book detracts more than adds to its stature, given that Gore's stance as Vice President has nowhere lived up to his promise from his authorship of Earth in the Balance. He does elevate this book to the level of Rachel Carson's Silent Spring. The power of Silent Spring is in the fact that it precipitated profound change in the way we look at chemicals in the environment, and this brought about legislative change. The message that Our Stolen Future imparts may be one even more important and sobering than Silent Spring. With a know-nothing Congress, and short-sighted multi-national corporations in charge of most everything, it remains to be seen whether this book will have as strong an impact as Silent Spring, at least over the near term.

The main theme of the book is that there is a far more insidious threat to the human species and all the other creatures higher up in the food chain that simply being poisoned by chemicals to the extent the organism gets sick and may die. Cancer and its prevention and cure have obsessed the research stations of pathology in recent years to such an extent that more compelling needs on the effects of synthetic chemicals on the endocrine systems of organisms has been given short thrift. In spite of the findings of studies which have done more than just raise red flags concerning the hazards of endocrine disrupting chemicals, the old guard universities and other prestigious research labs have not heeded the clarion call. Part of the reason for this is that the government agencies that fund such research are rigidly policing around in the swampy area of conformity and consensus.

Synthetic chemicals have come into common use relatively recently, after World War II. Between 1940 and 1982, the production of synthetics increased by 350 fold, and billions of pounds of man-made chemicals were let loose on the Earth and its environs, exposing humans, wildlife and the Earth's ecosystems to a whole mix of compounds never before encountered. Currently, there are about 100,000 synthetic chemicals in global markets, and about 1000 new ones are added every year, a situation that can be a run-away course to biological catalysim.

On the face of it, knowing what we do today about the fragile balance and complexity of the interrelating parts of all the Earth's ecosystems, it certainly would not require an Einstein to see that this dumping unnatural material into the world would create dire problems for many living organisms which have slowly evolved over many millennia. Our current society, made stupid by its addiction to "stuff" and the subsequent denial of very significant problems, is not competent to evaluate the degree of doom that rises up on the horizon.

There are primarily two main threats of a burgeoning concern based on scattered pieces of evidence - there are problems in reproduction and/or there are deficits in an organism's immune system. The organisms primarily affected in nature are those at the top of, or near the top of the food chain. Chemicals which can be stored in fat can be multiplied up to 25 million times from the bottom to the top of the food chain. A small fish swimming in water with five parts per trillion of dioxin eaten by a larger fish and so on up the line, can amplify the concentration of dioxin greatly during each exchange. The dioxin might have a concentration of five parts per million when it ends up in eagle fat.

Endocrine-disrupting chemicals are those which mimic natural hormones, thereby creating problems with reproduction and in immune systems. The insidious nature of these is that often the animal which has the chemical stored in fat is not particularly affected, but the sometimes terrible consequences of such infiltration are only evident in the next generation. In the earliest stages of pregnancy, the fetus is extremely susceptible to any kind of undo hormonal influence. The consequences of such infiltration are not usually predictable. Often both male and female have characteristics of the opposite sex, and may be unable to breed or have difficulty in breeding.

A few cases in point.

- Eighty percent of gull chicks died before hatching. These chicks had gross deformities, e.g. club feet, no eyes, twisted bills.
- Eighty percent of male alligators in Lake Apopka, the scene of a spill of the insecticide, dieldrin, a few years before, had inordinately small penises and were unable to breed, hence a die out of alligators in that lake.
- Because of a damaged immune system from exposure to PCBs, dolphins died off in droves from a virus that they heretofore had recovered from.

In human terms... see Book on page 8
Anyone who wishes to spend about $2000 can find out that there are about 250 chemical contaminants in his or her body fat. Some chemicals like DDT and PCBs accumulate in human body fat and breast milk. There is a dearth of research in giving us an answer as to how this can mean for us and our progeny. Such research is much more difficult for humans than for animals for the obvious ethical reasons. However, it is the strong opinion of researchers in this and related fields that there are links between chemicals and the offsetting of both wildlife and humans.

The contamination of breast milk is the high Arctic among the Inuit is very severe. This factor is suspected in the sickness of the children and the failure to make antibodies to infectious diseases. One mother, frightened by the prospect of poisoning her infant with her breast milk, bottle fed the infant with a mix of water and Coffee-Mate!

The very worst fears about dioxin are not that it is a carcinogen, but in its power in infinitesimal doses to disrupt natural hormones. Offspring of rat parents with high levels of dioxin were inclined, if male, to be feminized and destined to mate with females.

Females, on the other hand, showed abnormalities in the reproductive tract.

This can be called the age of plastics. Yet the horrible fact is that some plastics already have been shown to be endocrine disruptors. This was discovered while researchers were doing biological experiments using plastic flasks, and getting very strange results. One of these dangerous plastics is commonly used to line the cans in canned food!

"The amounts of potentially harmful chemical compounds produced each year are truly staggering—thousands upon thousands of chemicals and billions of pounds. Five billion pounds of pesticides alone are spread far and wide not only on agricultural fields but in parks, schools, restaurants, supermarkets, homes and gardens... Few, if any, safety data exist for many of these chemicals. The safety data that do exist are typically limited to whether the chemical may cause cancer or gross birth defects. Possible effects on the endocrine system or transgenerational effects are rarely, if ever, examined. The discovery that hormone-disrupting chemicals may lurk in unsuspected places, including products considered biologically inert such as plastics, has challenged traditional notions about exposure and suggest that humans may be exposed to far more that previously believed." (p 139)

Even more frightening is that two or more chemicals can exhibit a synergistic effect. Either one or the other might create no problems, but together there might be significant problems. "The threat explored in this book may seem overwhelming, especially to those confronting it for the first time. Feelings of fright and helplessness are, in our experience, not unusual. This is, indeed as frightening problem. No one should underestimate its seriousness, even though the magnitude of this threat to human health and well-being is as yet unclear. It would likewise be dangerous to retreat into denial, which can be a strong temptation in the face of large, insidious problems that leave individuals feeling helpless and hopeless." (p 210)

The authors give advice on how to minimize contamination from synthetics. Headings are: Know Your Water; Choose Your Food Intelligently; Avoid Unnecessary Uses and Exposure. Details on political action advisements are also given, and directions that new research should take. At the end of this book, the appendix, The "Wingspread Consensus Statement" is presented. Scientists from many disciplines assembled and brought out a detailed statement to register their concern about endocrine disrupting chemicals and to develop a plan for action. This is, indeed, a frightening book. And we should be frightened.

Perhaps the "dumbing down" of America had already occurred to such an extent that the warnings will not be heeded. Only one glimpse of the actions of the West Virginia State Legislature, or the Congress of the United States, would give credence to the idea of an impaired society, unable or unwilling to head off biological catastrophe unprecedented in human history. Read this book if it is the last one you read!

Review by Bill Reed

From Harper's Index of April 1997

The Highlands Voice

Number of EPA studies ever conducted on how commercially used toxic chemicals react in combination: 0
Amount oil companies owe the U. S. for undervaluing the oil pumped from public lands since 1978: $2,050,000,000
Percentage of Americans who believe that "most of us buy and consume far more than we need": 82

Environmental Leadership in West Virginia

In 1993 David Callaghan, former Director of Environmental Protection for West Virginia, in an interview with Noah Adams of National public radio, said: "I've thought what West Virginia would be like if Mother Nature or God had not put coal in these mountains, and, I've frankly had to conclude that perhaps this state would be better off without the coal."

[Sounds, David, like you had a flash of conscience. That you didn't act on your conscience makes you morally culpable for at least some of the current environmental woes of West Virginia. Ed.]