Larry George
DOE Commissioner

WVHC past president, Larry W. George, was appointed commissioner of the Department of Energy on Thursday, June 7, 1990. George had served as Deputy Director of the Department of Natural Resources since January, 1989.

George's appointment came soon after George Dials resigned. Dials' resignation, widely reported throughout West Virginia, had been called for by many groups concerned with government policies and enforcement.

Commissioner George, already at work, has outlined an agenda for DOE. A comprehensive review of enforcement and compliance procedures will be undertaken with the expertise of outside consultants. Examination of SMRC provisions that do not address modern mining techniques will be ordered. The practice that waiveres penalties under $1000, estimated by George to be 40% of the total levied. Review of the dam safety program to facilitate its operation at full speed. Examine regulations of non-fossil resources, regulations mostly unchanged since the 1960's. Non-fossil minerals include limestone, clay, sand, and manganese.

A combination of the circumstances of the appointment and concern for the loss at DNR has produced more than just enthusiasm for George. In making the announcement, the Governor again talked about plans to study the creation of a new environmental agency that would consolidate several existing agencies and regulatory programs.

Special Session Rally

"But what is government itself but the greatest of all reflections on human nature? If men were angels, no government would be necessary. If angels were to govern men, neither external nor internal controls on government would be necessary. In framing a government which is to be administered by men over men, to the great difficulty lies in this: you must first enable the government to control the governed; and in the next place, oblige it to control itself. A dependence on the people is no doubt the primary control on the government, but experience has taught mankind the necessity of auxiliary precautions."

—The Federalist No. 51

Gathering at the Capitol rotunda, sponsors and footsoldiers for DOE reform displayed protest signs and presented fact sheets. Orchestrated by Tom Rodd, a Morgantown lawyer involved in environmental issues, the purpose of the rally was to encourage legislation to reform DOE. Material available for interested persons was as general as a summarized list of principle points and as specific as a line by line rewrite of the statute that created DOE. That the outcome—partial DOE reform—would be so rewarding was only one of the hopes expressed by speakers at the rally.

Comprehensive examination of the problem included the personal testimony of citizens directly effected by coal industry pollution—especially AMD, physical samples of contaminated leachate, and documented recommendations for the letter and the spirit of the law. 5% of the coal being mined in West Virginia is in acid prone areas.

The amendment passed the last day of the special session is an important step in the right direction. Rodd gave his reaction on July 2, 1990: "I'm very pleased with the results of having the environmental input recognized by lawmakers. More than the Governor planned from legislatures combined with a mandate from the people. The Governor presents a clear opportunity for unified environmental support for agency reform."

Looking to further reform, Rodd recalled the DOE sit settlement. The agreement requires comprehensive record keeping on surface mine reclamation. In addition to monitoring these activities, environmental group efforts towards a comprehensive regulatory program that is in compliance with federal law should be ready for the 1991 legislature to enact. Rodd feels the "set should be kept to the fire" on the issue of permitting in AMD prone areas.

(continued on page 4)

Conservancy Founder Focuses on Biodiversity

As a founding member of the WVHC, M. Rupert Cutler, President, Defenders of Wildlife, clearly recalls the issues of the late 1960's. Wilderness protection, pork barrell water projects, poorly sited highways, abuses of the coal industry, all are familiar issues to Conservancy members and read like a current agenda. Critics often credit any environmentalist success to a repeated defense that lacks vision and creativity. Nothing could be further from the truth about Mr. Cutler's campaign and his career as an environmentalist.

Defender's president since 1988, the 1990's mark the beginning of Defenders offensive for biodiversity. The campaign for biodiversity signals a change in mandate from an annual focus on a specific species or narrow issue. As a synthesis of traditional and redefined wildlife management techniques, Defenders believes this umbrella concept is the best and most timely solution for preservation of species diversity. Protecting biological richness should stress habitat protection over individual species management.

Service in the public and private sectors has given Mr. Cutler an opportunity to demonstrate expertise in all phases of administration. He has engineered creation phases of development, execution and test phases in between, into working structures. Media and public relations expertise has enabled him to effectively communicate solutions and advice others.

Cutler's managerial successes include fundamental changes in organizational hierarchy, increasing effectiveness and establishing information networks. National lands and parks administrations

(continued on page 3)
DOE SYMBOLS
by John McFerrin

Now that Governor Caperton has appointed former West Virginia Highlands
Conservation president Larry George as Commissioner of the Department of Energy,
Larry is going around referring to the 'new DOE.' The new Department of Energy is
now awash in symbolic changes.

In the old days, all visitors to the Department of Energy in Charleston had to sign
in. After signing in, they were issued a VISITOR badge. There was a sign that instructed
all who entered the building had to register at the Commissioner's office.

The effect of all of this was to make the place feel like a police state. After
spending all that money on office furniture, the Faetber administration apparently had no
money left for barbed wire and a machine gun turret. Thus, those were lacking. Otherwise,
the old Department of Energy had the trappings of an enemy fortress.

Now these are gone. There are no more VISITOR badges, no sign-in sheet, no
sign requiring visitors to register. Even if they had the money for barbed wire and a
machine gun, they would seem out of place.

The old Department of Energy had the statutory duty to promote the mining and
use of coal. Right there in the statute, along with the duty to regulate mining, was the
duty to promote.

Now that is gone. Thanks to an amendment to the statute, the new Department of
Energy no longer has the duty to promote the mining and use of coal. Its only statutory
duty is to regulate the mining of coal and exploration for oil and gas.

While both of these changes are valuable symbols, they are no more than that.
While the old Department of Energy may have felt like a police state, this ambiance only
marginalized its work. The real work of the Department is in enforcing the law. It is
in denying permits to outlaw operators. It is in fining lawbreakers. It is in collecting
the fines it does assess.

The real work of the Department of Energy involves taking seriously the concerns
of people affected by mining. The police state atmosphere of the old Department of
Energy was a symbol of hostility toward these people. Removal of that atmosphere is a
symbol of the change.

It is only, however, a symbol. Removal of the trappings does not save a single
stream; it does not get one outlaw operator out of the mining business; it does not collect
a nickel in fines.

This will only happen when we move beyond symbols to actually doing these
things.

Likewise, removing promotion from the Department of Energy has great symbolic
value. But that is all it has. The truth of the matter is that the old Department of
Energy was not doing any true coal promotion anyway. Their idea of coal promotion
was to give a permit to every Tom, Dick, and Harry who could manage to sign the permit
application. When these operations started to go sour, the old DOE promoted coal by
"working with" the operators until the coal was all mined. If they ever assessed fines, they
didn't collect them.

In spite of any statutory change taking coal promotion out of the Department of
Energy, the new Department of Energy still has the tools to promote coal exactly as the
old Department of Energy did. The old promotion-by-enforcement tool is still there. If
they want to continue this old policy, there is nothing in the new statutory change that
would stop them. The statutory change is no more than a symbol.

Symbols are important. We have such an uproar about the flag because of its
value as a symbol.

Standing alone, however, symbols are not enough. If there is no freedom in this
country, talking about the flag as a symbol of freedom is no more than cynical hypocrisy.
If there is no openness in the new Department of Energy, the removal of the police state
trappings is the same thing.

If there is no enforcement of the law at the new Department of Energy, then
removal of the promotion duty from the statute is no more than a cruel joke. If the new
Department of Energy continues the old promotion-by-enforcement then Governor
Caperton has gained an opportunity for some posturing about how interested he is in
environmental protection while we have gained nothing.

So far, the symbols of the new Department of Energy have been good. They have
discarded the trappings of a police state. They have jetisoned the promotion responsibility.

In the next few months, we will find out how much substance there is behind
those symbols. I, for one, believe that there is substance there; I can hardly wait for the
new Department of Energy to prove me right.

Guidelines For
Articles & Letters To The Editor

The Voice welcomes any well-researched article or editorial on areas of concern,
for example, river conservation, public land management, mining, recycling.
General articles on outdoor activities — canoeing, hiking, camping, climbing — or
unusual places or special outdoor events are also needed. All submissions are subject to editing.
To ensure accuracy in the printing of these articles, the following guidelines have been established:

1. Whenever possible, articles should be typed, double spaced on 8% by 11 inch
paper, with at least one-inch margins on each side. If the submission is not typed, the
author should use lined paper and write legibly on every other line.

2. Each article should be accompanied by the author's name, address, and
telephone number. (Addresses and telephone numbers will not be printed with the article,
but are needed so that the editor may contact the author for additional information, if
necessary.) If the article is more than one page, the author's last name should be placed
under the page number on each page.

3. Photographs related to the article are greatly appreciated. Black and white photographs
produce better results, but color photos can be used. Photographs will be returned, if
the author requests them.

4. The deadline for each issue of the Voice is the last Friday of each month.

The Voice also welcomes letters to the editor expressing views on any of
the topics covered in previous issues or on other environmental concerns. Letters to the editor
should follow the guidelines for articles.
have benefited from his progressive structural redesign as well as private foundations and charitable organizations where a strong framework is essential.

Initiating change in organizational framework and overseeing transition requires either total disregard for past practices and values or an intimate understanding of internal rhythms. Mr. Cutler interjects an activated potential for new creative resolutions that produce solutions. As Defenders' president, all these skills and ideas come together to develop awareness, communicate a message and post solutions for the shrinking kingdoms of wildlife.

Some of these ideas, in the context of wildlife management, are stressed at Mr. Cutler's column in "Defenders," a bimonthly publication, and in various public forums around the country. An address at Ogleby Park, Wheeling, WV, in April of last year hosted by the WVU Extension Service, is just one example of the many communications forums used by Defenders. A national, educational, nonprofit organization, Defenders of Wildlife is dedicated to the preservation of wildlife in all its forms.

Specific species that Defenders has actively sought to protect by information campaigns, litigation, and legislation include the Florida panther, desert tortoise, sea turtle, spotted owl, Mount Graham red squirrel, red wolf and gray wolf. An unrelenting schedule of legislation analysis and political evaluation has produced a list of proposals that include common sense suggestions and radical innovations.

These include countering disabling statements by Secretary of the Interior Manuel Lujan by clarifying legal realities; advocating U.S. agencies and oversees projects abroad be held accountable for applying the Endangered Species Act; amending NEPA by requiring explicit biodiversity standards be applied in preparation and review of all future environmental impact statements; develop a national policy to secure conservation of biodiversity at a reasonable standard; and, proposing appreciative users such as birdwatchers and hikers fund habitat protection with special user fees.

Observations from the Defenders' vantage point have proven to be different from the observations of trained bureaucrats and politicians. A recognition of the role of "nonconsumptive" or "appreciative users" of wildlife has been explored by Defenders.

The 1985 National Survey of Fishing, Hunting and Wildlife Associated Recreation defines this group as "observing, photographing and feeding of fish and wildlife." The Society of American Foresters, in a December 1988 report, Briefings of Federal Forest Policy, define the nonconsumptive users of fish and wildlife as "activities that do not result in the death or attempted death of an animal." Any bureaucrat should be impressed by the size of the group. Many appreciative users may also be surprised.

Three out of four Americans are involved in appreciative use. An average annual expenditure associated with appreciative activities is over $14 billion a year or $106 per person per year.

Mr. Cutler sees the rural landscape and wildlife habitat of West Virginia as a logical place for appreciative users from all over the United States, especially the overdeveloped East. By focusing on the appreciative user, ideas for programs that provide incentives for land owners to manage for natural resources and recreational access will become realities. The State should also increase activities. A nominal game division barely scratches the surface of what WV could do, not to mention the profit potential and opportunity for service.

The private land owner could be addressed by being given the knowledge of the significance their land may hold for enhancing species diversity. Economic rewards could include the assurance of income from a satisfied user and profits from management of natural resources. More intangible benefits associated with contributing to the growth and development of the "ecotourism" industry accrue more slowly.

Although Defenders has no field representative office in West Virginia, Mr. Cutler has very definite advice about the next logical steps for West Virginia. A handful of states have each completed thorough biodiversity studies and California has started a program. The Habitat Gap Analysis program of the Fish and Wildlife Service is patterned after a project in Idaho. States can receive federal funding and guidelines for undertaking a gap analysis. Nationwide coverage is not unrealistic as a goal but would require exceptional political will. Little evidence of such direction exists in the Bush administration. All the more reason for state leadership.

West Virginia's entry into the information age, or any age, would be strengthened by compiling data and creating a composite that describes separate ecosystems. This foundation could be essential in preserving the State's biodiversity and linking West Virginia with neighboring bioregions of other states.

Success in restoring endangered animal and plant populations requires a larger area of habitat than scientists once believed. No one disputes the fact that loss of habitat is the principle threat to the survival of species. Endangered species lists are created to show the continued viability of the wildlife and the necessity of leaving a racial footprint in the natural heritage of the United States. As West Virginia's entry into the information age, or any age, would be strengthened by compiling data and creating a composite that describes separate ecosystems. This foundation could be essential in preserving the State's biodiversity and linking West Virginia with neighboring bioregions of other states.

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no leachate from the landfill or other illegal contaminants. However, this defense is not credible, at least to this writer, considering my personal observation of several acres of raw, uncovered garbage resting at the headwaters of several streams which originate on the hillside of the sanitary landfill.

No effort is made to prevent rainwater falling on this acreage of uncovered garbage from flowing directly into the streams and completely untreated. (For a more complete description of conditions at and around the ERO site, see "Foray to the Field Frontier" this page.)

Ironically, ERO has applied to the Mason County Solid Waste Authority to expand the present ERO site, denying allegations of violations or even a complaint for problems experienced by people living downstream and "down road" of the landfill.

Attorney Rose contends that even if water flowing from the site is not polluted (which he contends is most assuredly not the case) a water discharge permit is mandatory nevertheless required by the Clean Water Act; much like one who drives a new automobile, obviously in good condition, one must still display a safety inspection sticker attesting to its safety as per required inspection.

The battle over mining, tonnage allowed, tipping fees, corporate profits at public and private expense—destruction of public road by heavy, garbage trucks and decrease in quality of life near the site—connected with so-called "sanitary landfills" is cursed to escalate in West Virginia. As usual, the big money is on the other side. Money to hire lawyers. Money to influence the political process.

Regulatory agency cororporation in the cause of environmental protection is sometime wimpish and uncertain. Admittedly, such agencies are too often underfunded, understaffed and underpaid.

If you have any ideas, let us know. Personally, I'm concerned that before long the garbage "industry" will no longer be considered as something to keep out. It will be just something else that's here to deal with, with the excuse of long delays for reasoned, effective and inexpensive preventative solutions. Stay tuned.

The Rodd formula for DOE reform focuses on three major areas. He shuns Governor Caperton's proposal for redefining the purpose of the agency. Formed by the Moore administration in 1985, its mission was to promote "West Virginia energy and simultaneously function as an environmental and citizen's advocate." Not only has the environmental protection suffered, the energy industry receives government consideration even to the extent of promoting.

SECONDLY, qualifications for the commissioner should reflect an interest and expertise in environmental studies. The present job description requires experience in the energy resource field.

THIRDLY, the DOE Reclamation Board of Review (RBR) should require a balanced membership that represents all state industries. Financial compensation from regulated industries should be prohibited for board members.

Answering his own rhetorical question: "Is the agency hopelessly flawed? No—if there is life there is hope," Rodd demonstrated his point in gesture, in song and deed. Equipped with samples of the physical evidence of AMD, sludge and polluted water; familial with the personal tragedies of AMD devastation; versed in the legal structures governing coal and polluted water; versed with the visions for better legal structures; driven (from Morgantown) to demonstrate his image of a future West Virginia by playing his banjo and singing, providing others with a forum from which to speak, not to mention the years of preparation and involvement in the issue of coal mining.

All this to an empty rotunda. (If you don't count the thirty or so people there.) No legislators, no governor's aides listening.

The WV Environmental Council lobbyist and Rodd will make certain that legislators and governors hear them. Their values and beliefs assure that this step will be taken. Savvy for the ways of the "politic process," a series of steps are undertaken to ensure that the message is delivered, and to take the opportunity to praise their abilities and rated WVVEC as one of the best environmental lobbyists in the country.

But the lobbyists know that hearing is not listening. Information and methods to communicate in lobbying practices will be up to us to see. The lack of attention to the rally Saturday is not a lack of media technique, an instance of poorly prepared spokespersons, or lack of cause. The media was there, spokespersons were informed, the cause is real. Experienced lobbyist Rodd, who judged elected officials showed no interest in the Saturday rally. Please speculate on the value of his time and our money.

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Integrated Waste Management and Needs Assessment

by Ellen Thompson-Allen

Just as we have grown to expect good education and police and fire protection, it is time we demand responsible long-term planning for solid waste management solutions. No longer is it sufficient to simply dispose of our trash in solid waste landfills. The time has come to look at the big picture.

Therefore, integrated waste management. Times and attitudes have changed and it is now our responsibility to provide for the effective and efficient management of our waste. Otherwise, out-of-sight-out-of-mind will no longer be accepted.

What is integrated waste management anyway? It is an approach to waste management that considers a variety of waste management practices. Various technolo-gists complement one another and provide for the safe disposal of wastes with the intent being reduced adverse impact on the surrounding environment. An integrated waste management system will include the following components:

SOURCE REDUCTION

Although not a technology such as incineration, recycling, or landfilling, source reduction will play a key role as a preventive measure against the growing waste stream. Simply put, it will reduce the quantity of materials that find their way into our waste stream. While source reduction may seem at first somewhat of a nebulous term, there are many forms of source reduction that may take such as:

- Using cloth diapers instead of disposable diapers
- Using paper bags instead of plastic bags
- Composting yard wastes
- Photocopying on both sides of paper
- Purchasing foods in degradable packaging

RECYCLING

Diverting massive quantities of waste from landfills, recycling is vital to any sustained integrated waste management program. However, a major impedance to successful recycling efforts has been the wide fluctuation of available secondary materials. Like other products, recycling is driven by demand. How do we stimulate demand for secondary materials?

- Tax credits encouraging existing industries to use secondary materials and products
- Low interest loans for construction of secondary materials industries
- Purchase recycled goods yourself

In order to attain a goal of increased recycling, we must see more materials separated, collected, processed, marketed, and manufactured into new products. What does this mean to you at the local level? It means you must look at ways of making recycling attractive and convenient to your community. High participation rates are somewhat difficult to achieve. Therefore, collection must be made convenient for both the waste generator as well as the waste collector. Local issues must address collection, separation and processing. Some local programs have included:

- Mandatory or voluntary collection and disposal programs
- Institute public education campaigns
- Hiring recycling coordinators for community staff

WASTE-TO-ENERGY

Certainly an option for communities, the combustion of municipal waste and recovering the steam for alternate energy sources has been adopted in many communities throughout the country. A very controversial topic, any community considering an incinerator should address the following issues:

- The technology must be technically sound
- The plan should be cost effective, backed by a reputable bonding company and include equity participation on the part of the vendor
- Control flow of the trash by designated legal authority

LANDFILLING

Although at the latter end of the waste management hierarchy, landfilling will remain an essential element in solid waste management disposal. While increased source reduction, recycling and incineration will reduce the stream of waste going into our landfills, there will certainly exist components of the waste stream that will best be managed by landfilling.

Because of this need and the importance of protecting the public health, we must see that minimum design and operation standards are met.

NEEDS ASSESSMENT

This all sounds wonderful, but what's a community to do? Do you proceed down the hierarchy in order and sequentially adopt each component? Obviously, this is not a practical solution. On the other hand, what is practical is setting precedents for sound fiscal planning as well as responsible public policy administration. It will discourage the investment of millions of taxpayer dollars to incineration or landfill projects without considering complimentary source reduction recycling strategies.

Implementing an integrated waste management strategy insists that a community assess its needs before committing to any specific long-term program. It requires that we look at:

- NEEDS OF RESIDENTIAL COMMUNITY
- NEEDS OF INDUSTRIAL COMMUNITY
- CURRENT DISPOSAL METHODS
- FEDERAL, STATE AND LOCAL MANDATES
- TRANSPORTATION COSTS

- TAX BASE
- PUBLIC OPPOSITION
- WASTE STREAM
- CHARACTERISTICS
- ECONOMICS

There are only a few of the elements that a community must consider in developing an integrated waste management system. However, the first step in adopting a workable and publicly accepted waste management strategy is to assess the long-term needs of the community with sound fiscal planning and responsible public policy administration.

Ellen Thompson-Allen is Marketing Director for Joyce Engineering, Inc., located in Princeton, West Virginia. Joyce Engineer-ing is a small engineering consulting firm founded in 1983. Specializing in municipal solid waste management throughout West Virginia, clients include Solid Waste Authorities, private operators and the State Solid Waste Management Board.

(continued from page 4)

Sierra Club

Jim Kotton, WV Sierra Club, spoke at the rally about the Public Energy Authori-ty (PEA). PEA action in Morgantown is the only formal project now underway. The siting decisions and financial bonds for the proposed power plant were issued under PEA authority. Several thousand signatures gathered from Morgantown residents in favor of a city-wide recycling program on the proposed plant was overidden by PEA.

A creation of Moore in 1985, the PEA is exempt from Public Service Com-mission oversight, can acquire land by condemnation, develop and operate energy production and transmission projects, has no provisions or requirements for an environmental impact study with public participation for proposals.

Kotton concluded, "Abolish the PEA. It is an agency that is not needed. Other industries need to have their rights balanced against the rights of coal operators."

4-H ROAD COMMUNITY

Joan McFerrin, 4-H Road Community and resident of Booth's Creek has been involved in AMD issues for several years. Living north of Morgantown, she has seen many streams turn orange and become lifeless. In 1983 when Omega mining applied for a permit to mine coal she went to confront the issue directly.

Permitting was then under the OSM, and Director Callaghan assured residents no ill effects would come from mining in the area. WVHC board member and geologist Richard di Prezor evaluated the site and determined that AMD would be a result of mining. The Conservancy supported legal action to deny the permit but was unsuccessful.

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SHORT NOTICE

THE STRIPMINING HANDBOOK. A Coalfield Citizens' Guide to Using the Law to Fight Back Against the Ravages of Strip Mining and Underground Mining; by Mark Squillace.

Published by the Environmental Policy Institute and Friends of the Earth, this how-to booklet is available from Trans Allegheny Books, 114 Capitol Street, Charleston, West Virginia 25301. A retail price of $9.95 becomes $12.55 for WV residents requesting delivery.

Introduced by Representative Morris Udall, Chairman of the House Interior and Insular Affairs Committee, the focus is on SMCR and the permit process. Legal and technical terms of art used in this specialized realm of the law are defined and explained. For instance, one of many helpful appendices is a glossary of terms that give the EPA description of AMD as 2FeSz + 2H2O + 7O22FeSO4 + 2H2O.

ISLAND PRESS. The Complete Guide to Environmental Careers. Compiled from the work of The CEIP Fund (formerly The Center for Environmental Interior Programs), explores the diverse aspects, qualifications, education avenues and career paths of environmental careers. "By choosing to enter the environmental field, you embark upon a cutting-edge career, one that is young and evolving every year as new technologies and policies come into play. Perhaps the most exciting element is the people themselves. While environmental professionals come from all backgrounds and walks of life, most bring a love or passion for the environment to their work and careers. Environmental careers have unlimited potential to be deeply satisfying and creative."

WATCHABLE WILDLIFE. A program by the Bureau of Land Management (BLM) and Defenders of Wildlife, Watchable Wildlife is designed to increase opportunities to photograph, study or watch the animals living on the 270 million acres of BLM land. A part of the Fish and Wildlife 2000 and Recreation 2000 programs, the goal is to improve the management of wildlife. It is also a recognition of the growing demand for wildlife-watching areas in this country. A binocular logo, designed for an Oregon wildlife program has become the symbol for identifying wildlife viewing locations. For more information write or call Defenders of Wildlife, 1244 Nineteenth Street, NW, Washington, D.C. 20036. 202-659-9510.

NATURE CONSERVANCY. The Nature Conservancy protected 71,000 acres of habitat with at least one project in every state in honor of Earth Day 1990. The May/June issue of Nature Conservancy lists each project and gives a brief description. Only eight more months to Earth Day 1991.

IZAAK WALTON LEAGUE OF AMERICA. A Citizen's Guide to Clean Water. Another excellent booklet from the IWLA, intended for the citizen interested in information and action. Most recently, the IWLA is noted for spearheading increased efforts at accurate water quality monitoring, the guide provides how-to advice for plugging into existing efforts as well as technical know-how. Write to IWLA, 1401 Wilson Boulevard, Level B, Arlington, Virginia 22209.


(continued from page 5)

In the fall of 1989, DOE issued a Notice to Show Cause to Appalachian Mining because of its operation on Campbells Creek in Kanawha County and its pattern of violations of the law. This is an administrative procedure used by the DOE when a company has past violations and irregularities. The company must appear and explain why its permit to mine should not be revoked.

A hearing was scheduled and the Campbells Creek residents intended to participate. Prior to the hearing date the DOE made an agreement with Appalachian Mining that the permit would not be revoked. This ruling was challenged by Mr. McFerrin in the WV Supreme Court. The Court ruled in favor of the residents.

Limited as a victory—this ruling did not stop the mining—it is significant is essential in defining the role of citizen participation in the DOE. McFerrin concluded, "The case is important because it makes clear that citizens have the right to participate in enforcement decisions which affect them. The Department of Energy cannot simply ignore citizens affected by mining."

SAVE OUR MOUNTAINS

In Andrew Maier's last letter as president of Save Our Mountains, he graciously thanked members for their support and announced his plans to attend WVU law school.

His final call to action was for phone calls, letters and a rally at the special session to insist on DOE/PEA reform. Included was a concise summary of points for DOE/PEA reform. It's a very helpful at-a-glance list. Maier's trenchant analyses and clarification of issues will be missed.

Speaking at the rally, Maier emphasized the necessity for real, substantial reform of DOE and not just a cosmetic makeover of the agency.

"The question 'conversion to what?'' implies more than just a simpleminded shift from all things military to all things civilian. An indiscriminate approach may only exacerbate existing civilian overcapacities and deepen structural unemployment problems. Civilian shipbuilding, for example, does not offer a viable alternative to producing warships and attack submarines. Indeed, conversion is very much concerned with the kind of civilian economy to emerge. An inherent goal is the production of socially useful goods to satisfy unmet needs in housing, health care, energy, environmental protection, transportation, and education. This implies a more differentiated approach than the openeden pursuit of economic growth... the question 'conversion to what?'' cannot avoid addressing the neglected relationship between economy and ecology. Producing more cars instead of tanks, for example, would simply exacerbate the environmental crisis. The environmental community would strengthen the alternative use concept by developing guidelines for conversion to a more sustainable economic system founded on environmentally sound products and production technologies."

"Swords Into Plowshares: Converting to a Peace Economy" by Michael Renner

WORLDWATCH; Paper 96, June 1990

Von Koch snowflake. The exact, symmetric fractal, with scaling symmetry, is a purely mathematical construct. The vertices of the initial star never disappear.
"The boys have been developing for perhaps 10,000 years. Succession is a natural phenomenon, but in a unique botanical area all care should be exercised to insure as little alteration by man as possible... It is only by the extreme efforts of concerned citizens and politicians that such unique areas will be available for future Americans to enjoy. In a world with countless millions of acres destroyed, such wilderness and natural areas act as the only buffers to total environmental catastrophe."

"Cranberry Glades, A Unique Series of Boreal Bogs in the Appalachian Mountains of WY" by David L. Elder

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**Federal Laws Dealing With Toxic Substances**

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**A Victory for the Bay Checkerspot**

by Karen Flagstad

Thanks to the stalwart sponsorship of Stanford University researcher Dennis D. Murphy and his colleagues, Euphydryas editha bayensis, also known as the Bay Checkerspot Butterfly, has won protection under federal endangered-species legislation. On September 20, 1987, following deliberations that lasted seven years, the Bay Checkerspot was officially listed as a 'threatened species' under the Endangered Species Act.

Seven years! That's right. It seems the case involved not only the fate of a vanishing butterfly, but among other things, the plans of two Fortune 500 companies and a major landfill proposed for the city of San Jose, California. As reported in The Wall Street Journal, one company, a defense contractor, sought to scuttle the proposed listing of the Bay Checkerspot on the grounds that it could compromise national security. Ultimately, the dispute turned on the issue of land use, since land containing habitat of a formally listed, protected species cannot be developed unless a plan for preserving the species and its habitat has been approved by federal authorities.

In fact the controversy over the Bay Checkerspot Butterfly might still be going on if Dr. Murphy had not succeeded in arranging a novel conservation agreement among three principal parties in the case: a prominent waste-disposal firm, Waste Management of California, Inc.; the city of San Jose; and the U. S. Fish and Wildlife Service, which administers the Endangered Species Act. Under this agreement, Waste Management has been able to proceed with an extensive landfill operation, while at the same time, habitat of the Bay Checkerspot is protected on the site of the landfill. In a number of ways, the agreement provides a model that could be helpful in resolving future conflicts between endangered species protection and urban area development.

At one time, the Bay Checkerspot may have been the most widespread butterfly in central California. As recently as the 1950s, there were populations in five San Francisco Bay Area counties. Now, however, the only known population of this butterfly in the world survive in two of these counties, San Mateo and Santa Clara.

The habitat of the Bay Checkerspot is highly specialized and increasingly fragmented—a story that harks back two centuries. When early settlers came to California, they introduced certain hardy grasses and forage that provided superior forage for their livestock. These imported plant species quickly grew to dominate California grasslands by 'out-competing' many native plant species, including the host plants of the Bay Checkerspot: California plantain and Owls' Clover.

Over the last two to three decades, the Bay Checkerspot has been pushed to the brink of extinction by a combination of factors: the burgeoning development in the San Francisco Bay Area suburbs, the expansion of the freeway system that links them, and several years of drought in the area. Even without further encroachment on its habitat, Stanford scientists say the remaining San Mateo population of the butterfly has a doubtful prognosis for long-term survival.

This leaves the Kirby Canyon population in Santa Clara County as the best hope for the future of the species. As fate would have it, Kirby Canyon was selected by Waste Management, Inc., as the site for one of the largest landfills in North America. Dr. Murphy petitioned for protected status for the Bay Checkerspot under the Endangered Species Act in 1983. Waste Management was then seeking clearance from authorities for its Kirby Canyon landfill. Early on, it looked like an either-or situation: either save the Bay Checkerspot Butterfly and forego the landfill, or proceed with the proposed landfill and sacrifice the species. Then Waste Management broke the ice by inviting Murphy over to inspect the site of the proposed landfill.

Murphy's findings paved the way for the negotiated agreement that enabled landfill plans to proceed without significantly disturbing the habitat of the Bay Checkerspot. In his assessment, the area that the proposed landfill would disturb (467 acres) represented only about 15% of the total butterfly habitat at the site (3,365 acres). Second, the landfill operation would disturb no more than 150 acres at any one time. Third, the butterfly survived best on the cooler, north- and east-facing slopes of Kirby Canyon, at some distance from the main landfill activity site; thus, the landfill could be expected to disturb only five to nine percent of prime habitat.

Proceeding as if the butterfly were already a listed species, Waste Management and the City of San Jose designed a plan to assure that the new landfill would not jeopardize the Bay Checkerspot population. As part of the program, the Kirby Canyon Habitat Conservation Trust Fund was created, and Waste Management deposits $50,000 annually into this fund for conservation of the butterfly. Other aspects of the program include:

- Continued research to monitor survival patterns of the butterfly
- Habitat management that includes controlled livestock grazing as part of a pattern that favors the host plants of the butterfly
- Restoration and revegetation requirements in the course of landfill operations
- Acquisition of additional Bay Checkerspot habitat in the vicinity of the landfill
- Efforts to reintroduce the butterfly into unoccupied, but suitable habitat patches near the landfill

The plan was approved by the U. S. Fish and Wildlife Service on June 15, 1986, well over a year before the butterfly was formally recognized as a threatened species under the Endangered Species Act. As a result, Waste Management of California has not only been able to proceed with its landfill operation in Kirby Canyon but has received considerable favorable publicity as an eco-minded company as well.

And the Bay Checkerspot Butterfly has become the company mascot.

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EPA Journal, July/August 1979
Dear Fellow West Virginians,

I know you share my concern about the problem our beautiful state has with illegal dumping, litter, and too many people spoiling our homeland with trash and garbage. West Virginia must address these problems in order to attract jobs, develop tourism, and create new pride in our state.

I need your help and your ideas. It is my hope that you will help me plan ways that state government can provide the leadership necessary to assure our state is among the nation's cleanest. Our best West Virginia resource is you. Your ideas, along with the ideas of others, will be helpful to me in developing a plan to truly clean up West Virginia, and to instill in all who live and travel in our state, the desire to protect its beautiful landscape.

Please take some time to think about ways we can begin working to achieve the goal of making it one of the nation's cleanest, most litter-free states. I understand my idea(s) will be reviewed and considered with others as you develop a plan to assure a clean, beautiful West Virginia of which we can be proud.

Thanks for helping West Virginia with your ideas for a plan to clean up the State.

Sincerely,
Governor Caperton
Governor of West Virginia