ABANDONED MINED LAND RECLAMATION NEEDS OF THE PENNSYLVANIA ANTHRACITE FIELDS

FIELD HEARING

BEFORE THE

COMMITTEE ON RESOURCES
HOUSE OF REPRESENTATIVES

ONE HUNDRED SIXTH CONGRESS

SECOND SESSION

JANUARY 24, 2000, SCRANTON, PA.

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ABANDONED MINED LAND RECLAMATION NEEDS OF THE PENNSYLVANIA ANTHRACITE FIELDS

MONDAY, JANUARY 24, 2000

HOUSE OF REPRESENTATIVES,
COMMITTEE ON RESOURCES,
Scranton, Pa.

The Committee met, pursuant to notice, at 12:30 p.m., in the Collegiate Hall Room, Redington Hall Building, University of Scranton, Scranton, Pennsylvania, Hon. Don Young (chairman of the committee) presiding.

The CHAIRMAN. The meeting will come to order. Please take your seats.

The Committee on Resources is meeting today under its oversight jurisdiction to take testimony on the subject of mine land reclamation needs of the Pennsylvania anthracite fields. Congressman Don Sherwood of the 10th District, a valued Member of the Committee, has graciously hosted our visit to this historic region. I'd like to thank the University of Scranton, as well, for making this venue available to us, and the efforts of all involved today to coordinate our tour we had this morning.

Seeing with my own eyes the magnitude of the environmental impacts of the unreclaimed coal mines and the facilities of this area will help guide my understanding of the testimony which we are about to hear.

I understand that this great coal-bearing region was where our Nation's industrial revolution first took hold. Some 7 billion tons of hard coal had been mined from Eastern Pennsylvania since 1769—and that estimates are about 20 billion tons remain in the earth here. Furthermore, my understanding is the demand for your coal gives way as bituminous coal elsewhere was found to be more economic to mine in those areas.

For many decades the hard coal from the Lackawanna Valley and nearby fields fueled the forges of our Nation's industry, fired the boilers of our locomotives and heated many homes and took care of the barge and railroad network which grew up here for the coal market. It's your historical legacy and one in which I am sure the folks of Scranton and Eastern Pennsylvania are quite proud and rightly so.

Unfortunately, there is an environmental legacy that followed from your industry, as well. The hard coal was mined, broken and shipped under few regulations then, but the environmental consequences of these practices did not really hit home until our Na-

tion became wealthy enough to afford a clean and safe environment.

I was in my third term in office when Congress enacted the Surface Coal Mining Reclamation Act of 1977. This law made it a national policy to require more stringent regulations of active coal mining and required reclamation plans backed up with financial guarantees to ensure the restoration. The feds stepped in because it was widely perceived that the states were lax in their own regulations out of concern that the operator would simply move if the rules were too tough in their states. The states were allowed to seek enforcement practices under the new Federal agency and the Interior Department, the Office of Surface Mining but the feds were there to oversee the state need to commit them to the task.

This is all well and good for active operations, but the Congress decided that mining disturbance made prior to 1977 ought to be reclaimed too and recognized in many cases the former operator had no obligation under state law to do so. Thus, the Abandoned Mine Land Reclamation Trust Fund was established to create a funding source to begin to tackle this problem and a delivery mechanism to get the money out for on-the-ground remediation.

Congress estimated that 15 years of the AML fee levied on every ton of coal mined in the county would provide the necessary funds. In 1992 we extended this fee collection through Fiscal Year 2004 and provided the trust fund to earn interest with a diversion of a portion of the interest into the health benefits fund for retired coal miners and their dependents.

During debate on the establishment of the AML funds, many states were concerned that the producers would pay into the fund for reclamation projects elsewhere so Congress obligated by guarantee that every AML dollar collected from active producers within a state—50 cents would be dedicated within the fund for ultimate appropriations back to that same state. The remainder would be known as the secondary share to pay for Federal emergency programs and additional grants to states based upon their historic production. Western members understood this would be a net transfer of funds from the coal states to the West, Wyoming, Montana, Colorado, Utah and New Mexico, but this was the compromise that was reached.

So what is the problem? Why are we here today? Well, like the Federal Highway Trust Fund which grew fast from gasoline taxes levied for years, which were not sufficiently appropriated back for more roads and bridges, the AML fund too was used to disguise the true size of the Federal operating budget deficit for many years. OSM would collect the AML fees and send it to the Treasury but our budget enforcement rules kept both the Congress and the President from spending on reclamation that is about half of what had been collected each year. Instead, an IOU went to the treasury but the real money went to pay for the Government program that lacked a dedicated funding source. So the states who had been promised a return of at least half of their collection had to wait and frankly are still waiting.

OSM records indicate that approximately 49 million dollars worth of IOUs to Pennsylvania are in the AML fund, the state's share balance, which doesn't take into account the funds which

your commonwealth is destined to receive from the historic production factor in the secondary share.

For comparison purposes, I note that the state with the most to complain about is Wyoming because the Governor is sitting on 258 million dollars of its guaranteed share. Please remember that the interest earned on the AML fund balance goes into the secondary share and not the state's so that the 50 cents on the dollar promised to states is more like 40 cents or less by the time the states see it.

Frankly, another broken promise to the states has been the Land and Water Conservation Fund of 1965, in which the Federal Government dedicated 900 million dollars of annual out continental shelf oil and gas royalties to efforts for conservation of environmentally sensitive lands, half to Federal agencies and half to the states. However, the budget priorities have seemed to prevent full funding of this program and often no significant funding for state grants at all.

But there is hope. The Conservation and Reinvestment Act of 2000, which I am the sponsor of and negotiated a fair amendment with the ranking Democrat of my Committee, Congressman George Miller of California, would put an end to such broken promises. If enacted, H.R. 701 will ensure that 3 billion dollars per year of the 6 billion dollar annual OCS royalties collection flows to the seven conservation programs in this bill. Pennsylvania would see nearly 50 million dollars each year, much of it to be managed directly by your Governor and legislature and the remainder by Federal agencies operating within the commonwealth's boundaries.

I am not suggesting that Pennsylvania's entire share should be dedicated to AML. We will hear some other ideas today. Indeed, there are constraints as to how the states may spend their funds within several of these programs, but very frankly Pennsylvania might decide to spend some of this money in solving some of the reclamation priorities.

My bill has been heard, debated and passed out of the Resources Committee, awaiting action by the full House of Representatives. I am proud to report that Don Sherwood joined with me in supporting the amended bill adopted in a strong bipartisan fashion last November. Likewise, Governor Tom Ridge has written to us with his support for CARA. Both these gentlemen understand that for too long we have passed legislation authorizing programs which ultimately lack the needed funding.

Other legislative fixes for abandoned mine land restoration efforts, including those in Pennsylvania, must not suffer the same fate. Today's record will be compelling, I am sure, from the testimony of the witnesses who will appear, for freeing up AML trust funds owed to the commonwealth, as well as establishing a need for some funding mechanism beyond 2004. But let's not lose sight of where the money comes from and recognize it will be a battle to be sure because frankly other states will demand the money but this area deserves it because of historical value.

I want to thank all of you, my staff, Mr. Sherwood for hosting this while the Committee holds this hearing in Scranton. Before I turn over the opening statement of Mr. Sherwood, I'd like to make note that our present colleague George Gekas from the 17th Dis-

trict of Pennsylvania has talked to us many times on this subject, as far as reclamation—is unable to join us today. He has contacted me regarding this important issue, as I mentioned before, as late as last night. I now would like to recognize my good friend, a member of the Committee, for an opening statement and then we will have our first panel up. I'd like to recognize Congressman Don Sherwood for his statement. Mr. Sherwood.

[The prepared statement of Mr. Young follows:]

Statement of the Honorable Don Young
Chairman, Committee on Resources

Oversight Hearing on

Abandoned Mined Land Reclamation Needs
of the
Pennsylvania Anthracite Fields

Scranton, Pennsylvania
January 24, 2000

The Committee on Resources is meeting today under its oversight jurisdiction to take testimony on the subject of mined land reclamation needs of the Pennsylvania anthracite fields. Congressman Don Sherwood of the 10th District, a valued Member of the Committee, has graciously hosted our visit to this historic region and aided the logistical efforts for this field hearing. I'd like to thank the University of Scranton, as well, for making this venue available to us, and the efforts of all involved today to coordinate the helicopter tour we had this morning flown by the Pennsylvania National Guard. Seeing with my own eyes the magnitude of the environmental impacts of the unreclaimed coal mines and facilities of this area will help guide our understanding of the testimony which we are about to hear.

I understand that this great anthracite coal-bearing region was where our Nation's industrial revolution first took hold. My staff reports to me that some seven billion tons of hard coal have been mined from the anthracite fields of eastern Pennsylvania since 1769 - and that estimates are about twenty billion tons remain in the earth here. Furthermore, my understanding is the demand for your anthracite gave way as bituminous coal elsewhere was found to be more economic to mine and burn. But, for many decades the hard coal from the Lackawanna Valley and nearby fields fueled the forges of our Nation's industry, fired the boilers of our locomotives, and heated many homes and buildings served by the barge and railroad network which grew up here to get the anthracite to market.

That's your historical legacy, and one in which I am sure the folks of Scranton and eastern Pennsylvania are quite proud, and rightly so. Unfortunately, there is an environmental legacy that followed from your industry, as well. The hard coal was mined, broken and shipped under few regulations then, but the environmental consequences of those practices did not really hit home until our Nation became wealthy enough to afford a clean, safe environment.

I was in my second term in office when Congress enacted the Surface Mining Control and Reclamation Act of 1977. This law, which we know as SMCRA, made it a national policy to require more stringent regulation of active coal-mining and required reclamation plans of such operators, backed up with financial guarantees to ensure the restoration of the surface impacts of those mines. The feds stepped in then, in 1977, because it was widely perceived that the states were lax in their own regulation out of concern that an operator would simply move to a less regulated jurisdiction if the rules got too tough in

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leadership of Pennsylvania Congressman Bud Shuster that trust fund is now on its way to a steady-state basis, i.e., for every dollar that flows in during the prior year, a dollar will flow out the following year.

Another broken promise to the states has been the Land & Water Conservation Fund Act of 1965, in which the federal government dedicated 900 million dollars of annual outer continental shelf oil and gas royalties to efforts for conservation of environmentally sensitive lands - half to federal agencies and half to the states. As with the Coastal Zone Management Act, however, the budget priorities always seemed to prevent full funding of this program, and often no significant funding for state grants at all.

But, there is hope. The Conservation and Reinvestment Act of 2000, which I have sponsored and negotiated a fair amendment with the ranking Democrat of my Committee, Congressman George Miller of California, would put an end to such broken promises. If enacted H.R. 701 will ensure that 3 billion dollars per year of the 6 billion dollar annual OCS royalties collection flows to the seven conservation programs in this bill. The latest tally sheet shows that Pennsylvania would see nearly 50 million dollars each year, much of it to be managed directly by your Governor and legislature and the remainder by federal agencies operating within the Commonwealth's boundaries. I am not suggesting that Pennsylvania's share be dedicated to AML needs *per se*, indeed there are constraints as to how the states may spend their funds within several of these conservation programs, but it is quite obvious that the Commonwealth would far better able to budget its own reclamation priorities if your treasury had this kind of money flowing into it each year.

My bill has been heard, debated and passed out of the Resources Committee awaiting action by the full House of Representatives. I am proud to report that Don Sherwood joined with me in supporting the amended bill adopted in strong bipartisan fashion last November. Likewise, Governor Tom Ridge has written us with his support for CARA. Both these gentlemen understand that for too long we have passed legislation authorizing programs we deem to have benefits for society but then Congress doesn't put its (your) money where its mouth is. Any future amendments to SMCRA, or other legislative fixes for abandoned mined land restoration efforts, including those for the Pennsylvania anthracite fields, must not suffer the same fate. Today's record will be compelling, I'm sure, for freeing up AML trust funds owed to the Commonwealth, as well as establishing a continuing need for some funding mechanism beyond 2004. But, lets not lose sight of where the money comes from and recognize it will be a battle to be sure its there for each and every deserving state.

[The prepared statement of Mr. Gekas follows:]

Submitted by Hon. Young

The Honorable George W. Gekas
January 24, 1999

STATEMENT FOR THE RECORD

MR. CHAIRMAN, I would like to thank the committee for taking the time to hold this very important hearing that impacts the environment of eastern Pennsylvania. I apologize that I am not able to testify in person to the importance of this issue. I want to thank Chairman Young for his leadership in providing these hearings along with Congressmen Sherwood, Kanjorski, and Holden for their help in guiding this Committee to explore ways to restore the beauty of the hills and valleys of eastern Pennsylvania.

The impact of anthracite coal mining on this region of Pennsylvania may seem insignificant to the naked eye, but has dramatic consequences for the fish and wildlife in both the Susquehanna River and the Chesapeake Bay. Initially, the mines drain chemicals such as sulfate and iron into small tributary streams. The water in those contaminated streams flow into larger creeks that flow into the Susquehanna River and eventually into the Chesapeake Bay. As a representative and lifetime resident of Harrisburg, which lies on the banks of the Susquehanna, I understand the importance of a clean river. The Susquehanna is the largest tributary of the Chesapeake Bay, providing 90 percent of the fresh water flows to the upper half of the bay. As the 16th largest river in the United States, the Susquehanna's beauty and wildlife is vital for the four million residents who live along its banks.

It is widely understood that current environmental policy does not cover the comprehensive clean-up plan that is needed to produce a cleaner river. I applaud those who have developed legislation that would tackle this mammoth problem. The sheer size of this area, nearly 120,000 acres in twelve counties of Eastern Pennsylvania, turns any potential solution into a daunting task. Faced with such a tremendous undertaking, I would ask the committee to consider carefully every alternative solution possible. Such a project needs and deserves extensive study, and I commend the Committee for beginning this process.

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Mr. SHERWOOD. Good afternoon. First, I'd like to thank my chairman, Don Young, for agreeing to hold this extremely important hearing to focus the Resources Committee's attention on the challenges still facing the anthracite region of Pennsylvania in reclaiming our land and water.

This morning Chairman Young agreed to go to fly over some of the abandoned mine sites to view first-hand the culm piles, the acid mine drainage and the open strip-mine pits that are all too familiar to those of us whose home is in Eastern Pennsylvania—and I think it made an impact. Thank you again, Chairman Young, for your interest.

I'd also like to acknowledge my colleagues in the House, Congressman Paul Kanjorski and Tim Holden, who will both testify today, and Congressman George Gekas, who has submitted a statement for the record. Thank you, Congressmen Kanjorski and Holden, for your determination and hard work to elevate this discussion and to focus Washington's attention on the unmet reclamation needs of the anthracite region. I believe that by continuing to work in a bipartisan manner, we will prevail in creating greater awareness and national interest in reversing the scars of coal mining.

Last but not least, I want to thank all of the witnesses who have agreed to testify today. I want to mention in particular Andy Skrip from the Scranton Chamber of Commerce and Bernie McGurl from the Lackawanna River Corridor Association, who live and work here in the 10th District and bring their many years of experience to the discussion.

I also am happy to mention that former Congressman Joe McDade, who I wanted to testify, has sent us a statement but he just couldn't be here in person. Mr. McDade worked very hard over his 36 years in Congress to improve the lives of Northeastern and North Central Pennsylvanians. But he also knows that there's a long way to go. He wanted me to thank you, Chairman Young, for making this a priority for the Resources Committee and for inviting him. Joe will submit a statement, and I have it here, which I am sure will shed some valuable light on this problem.

The CHAIRMAN. Without objection, so entered.

Mr. Sherwood, thank you. As we hear the witnesses today recount the history and the subsequent demise of anthracite coal mining and the current efforts to reclaim the use of the lands and waters polluted by it, I believe that similar themes will be recounted by many of us. Anthracite coal literally and figuratively fueled the industrial revolution and helped us to win two world wars, but in the process the coal mining devastated the landscape to such a degree that it will take decades to restore at the current rate.

The Abandoned Mine Land Trust Fund is not being used in its entirety to fund reclamation activity and it should be. As any economic development person will tell us, Northeastern Pennsylvania is greatly hindered by the existence of these unreclaimed sites. A new industrial plant or a new firm—when the CEO of a new firm who is interested in our area comes and looks it over, they often decide that they do not want to locate their new plant in sight of

the ravages of past mining. That has been a fact that has hindered our development.

All of these statements are considered true by interested groups, environmentalists, lawmakers, business people, academics and government experts. What's not so easy to come to agreement on is how to accelerate the cleanup. Do we increase funding for reclamation? Do we rely on technology to increase the speed and efficiency of the cleanup? Do we enhance existing programs to coordinate the reclamation efforts? Or do we create new programs? And we will hear various ideas today.

My inclination is that the answer lies in some combination of better technology, increased funding and a heightened interest and awareness nationwide. The purpose of this hearing is both to focus the attention of the Congressional Committee overseeing abandoned mine reclamation on the magnitude of the problem and to begin to create a consensus about answers to the questions that we have posed. What can we do to make things better? The people of the anthracite region are ready and more than capable of making things better, but we need some concerted help from our government, the business community, academics and environmental groups.

What's often lost in the discussions and debates about the legacy of coal mining and its environmental impact is the pride of the people in the region in the accomplishments of their family members who worked in the mines. Chairman Young today has already gone a long ways in acknowledging the nationally significant impact of the coal mining heritage by allowing my bill to recognize the Lackawanna Valley as a national heritage area to move forward in his committee.

Mining has provided steady work and a chance to fulfill the American dream for over a century for immigrants wanting a better life. This legacy endures in the work ethic and the tenacity of Northeastern and Central Pennsylvanians. Even though anthracite coal mining created substantial adverse environmental impacts to our area, it also greatly contributed to the current prosperity of our country. Now it's payback time. If we can tap into that prosperity and harness the ingenuity, the work ethic and the tenacity of the people of the region to figure out how to solve the problem, I have no doubt that it will be solved. The wealth that was created by mining anthracite coal in Eastern Pennsylvania is gone but the scars remain. Today is our day to start the process to correct that.

I look forward to hearing the witnesses' testimony and thank you again for taking the time to be here.

[The prepared statement of Mr. Sherwood follows:]

STATEMENT OF CONGRESSMAN DON SHERWOOD
House Committee on Resources
Field Hearing on Abandoned Mine Reclamation
Scranton, Pennsylvania
Monday, January 24, 2000

First and foremost, I want to thank Chairman Don Young for agreeing to hold this extremely important hearing to focus the Resources Committee's attention on the challenges still facing the anthracite region of Pennsylvania in reclaiming our land and water. This morning, Chairman Young graciously agreed to fly over some of the abandoned mine sites to view first-hand the culm piles, acid mine drainage and subsidence all too familiar to Northeastern and Central Pennsylvanians -- and I think it made an impact. Thank you again, Chairman Young, for your interest.

I'd also like to acknowledge my colleagues, Congressmen Paul Kanjorski and Tim Holden, who will both testify today, and Congressman George Gekas, who has submitted a statement for the record. Thank you, Congressman Kanjorski and Congressman Holden, for your determination and hard work to elevate this discussion and focus Washington's attention on the unmet reclamation needs of the anthracite region. I believe that by continuing to work in a bipartisan manner, we will prevail in creating greater awareness and national interest in reversing the scars of coal mining.

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Last but not least, I want to thank the witnesses who have agreed to testify today. I want to thank in particular Andy Skrip, from the Scranton Chamber of Commerce and Bernie McGurl, from the Lackawanna River Corridor Association who live and work in the 10th District and bring their many years of experience to the discussion. I'd also like to mention that former Congressman Joe McDade was asked to testify, but it just couldn't be worked out schedule-wise. Mr. McDade worked extremely hard during his 36 years in Congress to improve the lives of Northeastern and Northcentral Pennsylvanians. But he also knows that there's a long way to go. He wanted me to thank you, Chairman Young, for making this a priority for the Resources Committee and for inviting him. Joe will submit a statement for the record which I'm sure will shed additional light on the problem.

As we hear the witnesses recount the history and subsequent demise of anthracite coal mining and the current efforts to reclaim for use the lands and waters polluted by it, I believe that similar themes will be recounted: Anthracite coal literally and figuratively fueled the industrial revolution and helped us to win two world wars; but in the process coal mining devastated the landscape to such a degree that it will take decades to restore at the current rate; the abandoned mine land (AML) trust fund is not being used in its entirety to fund reclamation activity and should be; as any economic

development person will testify, Northeastern Pennsylvania is hindered by the existence of these unreclaimed sites. New industrial plants just do not want to locate in sight of the ravages of past mining.

All of these statements are considered true by interested groups -- environmentalists, lawmakers, business people, academics, government experts. What's not so easy to come to agreement on is how to accelerate the clean up. Do we increase funding for reclamation? Do we rely on technology to increase the speed and efficiency of the clean up? Do we enhance existing government programs to coordinate the reclamation efforts? Or do we create new programs?

My inclination is that the answers lie in some combination of better technology, increased funding and a heightened interest and awareness nationwide. The purpose of this hearing is both to focus the attention of the congressional committee overseeing abandoned mine reclamation on the magnitude of the problem and to begin to create a consensus about the answers to the questions I just posed. What can we do to make things better? The people of the anthracite region are ready and more than capable of making things better; but we need some concerted help from government, the business community, academics and environmental groups.

What's often lost in the discussions and debates about coal mining and its environmental impact is the pride of the people of the region in the accomplishments of their family members who worked in the mines. Chairman Young has already gone far in acknowledging the nationally significant impact of the coal mining heritage by allowing my bill to recognize the Lackawanna Valley as a National Heritage Area to move forward in his committee. Mining provided steady work and a chance to fulfill the American dream for over a century for immigrants wanting a better life. This legacy endures in the work ethic and tenacity of Northeastern and Central Pennsylvanians. Even though anthracite coal mining created substantial-adverse environmental impacts to the area, it also greatly contributed to the current prosperity in our country. If we can tap into that prosperity and harness the ingenuity, work ethic and tenacity of the people of the region to figure out how to solve this problem, I have no doubt that it will be solved.

I look forward to hearing the witnesses testimony and thank you again for taking the time to be here.

[The prepared statement of Mr. McDade follows:]

Submitted by Hon. Sherwood

Congressman Joseph M. McDade

Resources Committee Field Hearing
Scranton, Pennsylvania
January 24, 2000

Mr. Chairman, I am very pleased by your involvement in today's hearing, and I want to express my gratitude to you for coming to northeastern Pennsylvania to see firsthand the extent of the mine reclamation problems that we still face in our region. Our area welcomes you with open arms, and I know your leadership will be vital in our efforts to address these problems.

I want to thank my successor, Don Sherwood, for inviting me to participate in this field hearing, which he asked you and the Committee to hold here in Scranton. I am pleased to see that Congressman Sherwood and my former colleagues, Paul Kanjorski, Tim Holden and George Gekas are working as partners in a bipartisan way to find ways to clean up the environmental threats left by anthracite mining.

The battle to solve our mine reclamation problems has been going on for decades. When I first came to Congress in 1963 I devoted a great deal of time and energy to cleaning up our mine-scarred landscape and protecting our citizens from mine subsidence, mine fires and other safety and health hazards. I am proud to say we made some tremendous progress and used some creative approaches to make positive things happen.

The City of Scranton and the surrounding area was a far different place when I was a freshman Congressman than it is now. Burning culm banks were emitting pollution into our air, mine subsidence was threatening homes, businesses, schools and hospitals and there were unmitigated flows of mine water into our rivers. A poll of citizens found that their greatest fears were the threats of mine fires and subsidence.

All of these problems had to be handled on an ad hoc basis since there was no institutional process or flow of dollars to address our problems. One of the things we were able to do is pass a law that treated a home condemnation that was taken as a result of mine fire or subsidence threats to be treated for compensation purposes as if there was no fire or subsidence. Governor Scranton worked in Harrisburg to change the state legislation so that property evaluation procedures would not devastate our people whose homes were devalued by mine fire and subsidence threats.

We attacked our problems with a multitude of approaches. Pennsylvania passed a new strip mining law under Governor Scranton that became a model for other states and led to an effective federal law. We held national conferences to find better technology for dealing with our problems, and significant improvements resulted from those efforts. We developed ways to backfill mine subsidence areas using mine refuse once we found a way to remove the carbon from that refuse.

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As you know, I served for many years on the Interior Appropriations Subcommittee as the Ranking Republican. I was able to direct hundreds of millions of dollars in demonstration projects through the Bureau of Mines to test backfill methods. We put millions of dollars toward putting out mine fires and reducing subsidence. We were able to direct funds from the Abandoned Mine Lands (AML) and Rural Abandoned Mine Program (RAMP) to projects in the anthracite region.

We created a demonstration project that turned a mined area into a beautiful and well-used recreation area not too far from here which is called McDade Park. This park, I am proud to say, has served as a model for other restoration projects across the country. We successfully transformed an environmentally damaged eyesore into a tremendous community asset which is enjoyed by thousands of visitors each year.

I am pleased to say that we passed laws such as the Surface Mining Control and Reclamation Act in 1977 to address the abandoned mine reclamation needs across the country. This law set up a trust fund financed by mining companies to address the abandoned mine reclamation needs across the country. Unfortunately, the money that is appropriated for this fund is inadequate to fully address the nation's needs, particularly in Pennsylvania where the need is the greatest. The AML fund has provided about $22 million per year for Pennsylvania in each of the last several years, which barely scratches the surface in meeting all of the estimated $15 billion in abandoned mine land problems in the Commonwealth.

The battle to clean our environment still rages on. Several years ago, I was able to secure a special $30 million appropriation from the Environment Protection Agency to clean up acid mine water run-off in the Lackawanna River which eventually flows into the Chesapeake Bay. Resolving this on-going problem is one example of the work that needs to be done in our area which has a positive impact on other parts of the country as well.

We have many experts testifying today, but I think you could learn just as much, Mr. Chairman, if you went out on the street and talked to average citizens, especially those who are older, about how the mine reclamation and subsidence efforts have improved the lives of people who live here. These citizens remember, as I do, the blight and the hazards that were a byproduct of the mining activities which fueled our nation's economic engine earlier this century. They could testify as to the substantial improvements that were made by federal assistance and they would tell you that the job is still not finished.

We have rightfully directed hundreds of millions of dollars to clean up the landscape in the anthracite region. Our nation benefitted enormously from the anthracite coal that fueled much of our nation's economic progress during the 19th and 20th centuries. It is only right that the clean-up should also involve a national effort as well.

As a result of our past efforts, northeastern Pennsylvania is a safer, more beautiful and more attractive area. Unfortunately, there is still a great deal that needs to be done, as you will learn from the expert panel of witnesses. I look forward to hearing their ideas, as I know you do.

We need more federal dollars directed to our region, and we need creative approaches. I am pleased that Congressmen Sherwood, Kanjorski, Holden and Gekas -- the representatives of the anthracite region -- are working together without regard to party affiliation to make this region an even better place to live and work. They have my support in this effort, and I encourage you to hear their ideas and work with them to direct the necessary resources to finishing the job that needs to be done.

On a personal note, Mr. Chairman, I want to extend a special welcome to you from all of us who were pleased to see the birth of the Steamtown National Historic Area. I will always remember your steadfast support as we worked to make this national treasure a reality. Our region is most grateful to you.

The CHAIRMAN. I thank the gentleman. A few ground rules for the witnesses that will appear. I run a fairly tight ship. I say fairly because I used to be in that business of a very tight ship. I will be under the 5-minute rule and don't be offended because your written testimony will be put into the record, the full content. And I say that at every hearing that I conduct because I think it's no more than fair to address the witnesses that are going to be here. I might allow a little latitude to my colleagues because politicians have a tendency to talk too much anyway but not too much—let's put it that way.

But with saying that I would like to call at this time Paul Kanjorski of the U.S. Congress and the Honorable Tim Holden, from Pennsylvania 11 and Pennsylvania 6. I guess that means the Districts 6 and 11. Am I correct?

Mr. SHERWOOD. That's correct.

The CHAIRMAN. See, I don't have that problem. I've got just one big district. With that I'd like to have, Paul, you start the testimony out and then we will have Tim and then if we have some questions, hopefully you'll be available to answer them. Paul.

STATEMENT OF THE HONORABLE PAUL K. KANJORSKI, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF PENNSYLVANIA

Mr. KANJORSKI. Mr. Chairman, thank you very much. I've had the pleasure of being in your lovely state so I know you're a key person who flying over the beauty of Northeastern and Central Pennsylvania appreciate what devastation has occurred because of past practices. And I don't want to spend my time on reiterating a great deal of Mr. Sherwood's statement because all of it is correct. We know where we are and I want to thrust some of the ideas that we have as to what we can do to help cure the problem.

First and foremost, let me put it into context. Although Mr. Sherwood, Mr. Holden and I—ever since we've come to Congress and long before—have been heavily involved in economic development and restoration of the coal lands of Northeastern Pennsylvania, it really wasn't until this summer when I flew across the country with the President and went to various economically distressed areas—in discussions that night, the President said see if you can find any commonality in these areas and then come up with some demonstration ideas of what we could do.

And over the course of that week I gave it a great deal of thought and almost every airway we went to, from Nazareth, Kentucky, to the Black Hills of South Dakota to the ghettos of Los Angeles, they all reflect a certain commonality in that they suffer from an inferiority complex as a result of some material lacking, either in the environment or in the basic necessity of educational level of the population or something—or the loss or lack of investment capital. All of these areas have substantial deficiencies unaddressed and undirected to, regardless of what we do beside that. We really can't start to move these distressed areas.

And I was particularly struck that clearly in Northeast and Central Pennsylvania through the years of endeavors of Members of Congress, like Dan Flood and Joe McDade and many of my present colleagues, we've made strides and Northeastern Pennsylvania is

better off today than it's ever been economically in my lifetime. But we aren't getting there and we can't get there for a simple reason and that is our environment both land and water was so materially devastated by past practices that there seems to be an inferiority complex locally among the citizenry that they can't expect or exact excellence either from government or from business or from themselves in their communities, and second that we just can't correct the things ourselves and therefore we're not going to get to the level of average middle class economic existence in this area of the state. I think the resolve of how to address that has been handled. A lot of positive past legislation that clearly has failed.

The Office of Surface Mining I think will testify—or certainly in my discussions with them, they know that what presently exists is not nearly enough, is not properly funded by the Congress, is not executed by the Administration regardless of what Administration it is, to get this job done.

In reality, Mr. Chairman, you put your finger on our problem. This is not something that can be afforded on a year-to-year appropriation basis because regardless of how high at any one significant time people of this country focus on an environmental problem of this nature, you can't sustain that focus over the years necessary to make the major improvements and investments necessary to recover. So as a result even if we increase the mine fund, even if we challenge more of the mine money for a few years, that would be perfectly good. Changes in the political structure of the country and the attention of the country would deplete the attention and focus on this particular area or other coal lands in the country.

So what I prepared at a request of the President was a memo of how we could demonstrate what we could do not only in Northeastern and Central Pennsylvania but some of the other waste coal lands across the country which are quite significant but nothing quite to the extent of the anthracite field. So first we isolated a field that we could do a demonstration project in and that's clearly the anthracite field. It's contained in only 12 counties of Eastern Pennsylvania, no where else in the country except a little smattering of anthracite coal in your home state. It was the early material and there is not the capacity to get the local community to support or pay for the recovery program on a very simple basis; they didn't cause it, they didn't benefit from it and if they pay for it they'll not reap the benefits in their lifetime because it won't be completed for 25, 30 years so there's no incentive for the local community to tax themselves and assume that burden.

And I may say in defense of the coal mining industry across the country, as we look at the legislation of this new fund, it is rather harsh to create a tax that makes it uneconomical for these companies to exist today to pay for a process that they did not cause, they did not benefit from and they will not benefit in the future from and yet we're doing that. By putting a tax on coal in Montana or in Wyoming, we're basically saying you're paying back for something that a coal operation long gone in Eastern Pennsylvania has caused.

Now, what—the approach that I gave to the President was simple, to get a demonstration project, identify our 12 areas and then find a financing vehicle that could allow us to have a certainty of

money so that we could plan, design and implement all in a period of 20 or 25 years and we would know for certain and never have waste or overlap of the process. We have started on that. We now have underway a GIS system which will encompass 3,000 square miles of Eastern Pennsylvania in the most sophisticated GIS system available, making it much more efficient and cost wise much lower to examine and engineer the land recovery program. That's already started, enacted by Congress, undertaken by the Core of Engineers, EPA and other agencies of the Federal Government so that within 2 years we will have the most sophisticated GIS system to make the recovery possible of the land and the water.

The next problem however is the Office of Surface Mining. Regardless of how many allocations—if we double the allocations of 9 million to 18 million dollars, it's a pithering of what we need. It would take us 100 to 150 years at that rate to make a recovery. So what I've suggested in my proposal is to create tax credits by the Federal Government to independent bond holders—and I've had the insurance industry show great interest to buy these bonds if they are structured the way we've been designing them over the last several months, and that is to have the Federal Government through the Secretary of Interior or Secretary of the Treasury authorize an authority created by the State of Pennsylvania to issue 1.2 billion dollars in bonds, and it's in lieu of paying interest, to allow the buyer of those bonds to take a Federal tax credit of whatever the municipal tax rate is at that time at the sale of the bonds. It would cost the loss of revenue to the Federal Government of somewhere around 50 million dollars a year for 30 years and the bond issue will be paid off in a self-created sinking fund. So the entire investment of the Federal Government to accomplish this end would be approximately 1.5 billion dollars.

By building the mechanism of arbitrage with—the money actually would be about 2.4 billion dollars that would be available for expenditures, almost 100 million dollars a year in a well-conceived plan with proper financing under anthracite bonds or other type bonds with Federal tax credits, we could bring back this area both economically and environmentally to the stage that it was in that we could all make the speech some day that we had a dream and the fact is the dream would be that we recovered our land back to the status and the way it existed when the Indians first settled this area. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Paul, for a very eloquent statement. Tim.

[The prepared statement of Mr. Kanjorski follows:]

Testimony of the Honorable Paul E. Kanjorski
Committee on Resources Field Hearing:
"Abandoned Mined Land Reclamation Needs of the Pennsylvania Anthracite Fields"
January 24, 2000

Mr. Chairman, members of the Committee, thank you for allowing me to speak briefly about the environmental devastation suffered by eastern Pennsylvania, the current inadequacy of environmental mining reclamation policies to address this region's needs, and the urgent need for a unique, comprehensive, regional approach to solving the problem.

Approximately 120,000 acres of land in twelve counties in eastern Pennsylvania bear the environmental scars of the anthracite coal mining industry from poor mining practices that took place more than forty years ago prior to the adoption of environmental laws meant to reclaim the land. The U.S. Interior Department's Office of Surface Mining estimates that nearly $2 billion is necessary to restore the land and water of the anthracite region. However, only about $10 million per year is spent from the federal Abandoned Mine Land Trust Fund in the anthracite region. At this slow pace, we will not remedy a critical environmental problem for centuries.

More than twenty million people are affected by the quality of water of the Susquehanna River and Delaware Rivers, which carry acid mine drainage from the anthracite region to the Chesapeake and the Delaware Bays, respectively. The U.S. Geological Survey estimates that contaminated streams from the anthracite region dump 740 tons of sulfate and 51 tons of iron into the Susquehanna River **every day**. The Susquehanna River in turn provides more than half of the freshwater flow into the Chesapeake Bay; EPA has determined that this acid mine drainage is the greatest source of industrial pollution in the Bay.

Current environmental policy is based on either preventing pollution by regulation or providing funds to correct individual environmental problems. Like the Everglades, eastern Pennsylvania needs a long-term, comprehensive, regional environmental restoration program to correct the mistakes of the past. This is fundamentally an issue of fairness. Pennsylvania anthracite coal fueled the Industrial Revolution that made America the superpower it is today. Unfortunately, the physical scars left by the Industrial Revolution of the 19th and 20th Centuries have decreased our competitiveness in the Information Age of the 21st Century. By demonstrating that a single-purpose government corporation can undertake a sustained effort over a long period of time, we can serve as a model for other environmentally damaged regions of the country that seek to clean up this degradation.

A comprehensive, regional approach would remedy this problem more quickly and significantly reduce the cost of cleaning up the land and water of the anthracite region. I propose establishing a federally authorized organization to undertake a comprehensive clean-up plan that would result in the complete environmental restoration of the region over thirty years using a self-financing program that would recover the entire cost of the reclamation.

The Anthracite Region Reclamation and Development Trust

I believe that we should establish the Anthracite Region Reclamation and Development Trust (the Trust) as a wholly-owned government corporation. It would be run by a

Presidentially-appointed administrator (confirmed by the Senate) under the policy direction of the Secretary of the Interior, who would also appoint an advisory panel of community leaders, some of whom would be recommended by the Governor of Pennsylvania. The Trust, together with an Authority created under Pennsylvania law, would develop a comprehensive master plan to be submitted to Congress for review that would set priorities for restoration of the land and water, and then perform the actual clean-up, either directly or through contracts. The Trust would also work closely with existing federal, state, and local governmental units, as well as economic development organizations, to plan infrastructure and development regionally. By providing professional expertise and assistance in obtaining funding, the Trust would assist local communities to more efficiently upgrade sewer systems (solving the combined sewer overflow problem), improve transportation systems, and encourage more thoughtful land use planning. The purpose of the Trust would be to ensure proper federal oversight over the project.

Much of the degraded land is privately owned by parties not directly responsible for the environmental damage. To allow for truly comprehensive regional reclamation, the Trust and/or the Authority should have sufficient power to carry out the comprehensive master plan. Because eastern Pennsylvania is ideally located in the heavily populated Northeastern United States, much of this land would increase in value significantly if restored to its pre-mining condition. By acquiring, reclaiming, developing for "smart growth" in some areas, and ultimately selling former mine lands, the Trust and/or the Authority should be able to eventually recover the entire cost of the reclamation. After a thirty-three year period, the Trust and the Authority should be dissolved and its assets distributed in accordance with its underlying purpose.

The Anthracite Reclamation Bond

It is essential that the Trust have enough capital to carry out sufficiently the master plan over a long period of years. I propose the adoption of a tax credit bond, the Anthracite Reclamation Bond, which would provide a tax credit to the holder of the bond and would permit the Authority to borrow funds without interest costs. The Anthracite Reclamation Bond would be for a 30-year period and would allow the Authority to spend the bond proceeds over that same period, in recognition of the fact that the restoration activity will occur over many years. The bond proceeds could be used for such purposes as the acquisition, environmental restoration, economic development, and redevelopment (including infrastructure construction) of the land and water in the anthracite region. The Trust and the Authority would be subject to review by the General Accounting Office, as well as oversight by the Secretary of the Interior and Congress.

A single Anthracite Reclamation Bond for $1.2 billion would finance the major portion of the environmental renaissance of eastern Pennsylvania. By producing a certain and sustained dedication of resources, the Trust would be able to complete the long term restoration plan that is necessary for success. Absent a bond issue of this amount, a comprehensive restoration effort would not -- and has not -- succeeded.

In closing, thank you again, Mr. Chairman, for allowing me to comment at this time. I look forward to continuing to work with you on this matter.

STATEMENT OF THE HONORABLE TIM HOLDEN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF PENNSYLVANIA

Mr. HOLDEN. Thank you, Mr. Chairman. I would like to thank you for holding this hearing and I'd also like to thank Mr. Sherwood for hosting us here in Lackawanna County and his leadership on this issue as well as my good friend Congressman Kanjorski.

Mr. Chairman, I have a statement that I will submit for the record to avoid being redundant. I'd just like to briefly summarize it. But quite frankly, Mr. Chairman, you summarized my statement when we were flying in the helicopter earlier today. When we came into Schuylkill County and we were over Mahanoy City and Shenandoah and Girardville, as we looked out at all the coal operations that are currently working and ones that have been abandoned, you looked at me and you said, wow, we have a lot of work to do and we certainly do have a lot of work to do.

As sons of the coal region we are all proud of what a great interest that we had in developing the Industrial Revolution in this country, how we fought two world wars that was fueled by anthracite coal, as Mr. Sherwood mentioned. We are all proud of that. But what has been mentioned, there has been some very, very unfortunate consequences and as a result of that we are left with scarred land that makes it very, very difficult for our economic development people to attract industry or convince industry to expand and also that our environmental problems with our rivers and our streams and the acid mine drainage that we had a chance to see first-hand.

I believe in Lackawanna County I think that was that we could see that the water was basically orange as we looked out the left side of the aircraft and as we looked to the right it was of course blue. So again there are very, very tremendous problems that we are facing and it has been something that has been going on for well over a hundred years in this part of Pennsylvania. Federal and state laws came into effect I believe in the mid 70's to late 70's and since that time we've been able to reclaim land but there was a hundred years of damage that was done before that. We do not want to interfere with commerce or any of the production that is going on in anthracite currently.

I think that there's a need to look for alternatives of anthracite coal. I know Paul Kanjorski and myself are constantly doing that and there are several plans we are looking into but we need to clean up what was done before the Federal and state government stepped up to the plate and did the right thing. So Congressman Kanjorski has put forth a plan that I've looked at very closely and I think it has merit and it certainly should be part of the discussions.

There are other vehicles that we also need to explore, and you mentioned it in your opening statement, Mr. Chairman, how the Abandoned Mine Trust Fund is being used for other Government expenditures and Government operations just as the Highway Trust Fund was used. We were able to correct that and we need to do that with the abandoned mine trust fund also.

So with that, Mr. Chairman, I want to again thank you for holding this hearing and look forward to the testimony this afternoon.

The CHAIRMAN. Thank you, Tim. Do you have a written statement you are going to submit for the record?

Mr. HOLDEN. Yes.

The CHAIRMAN. Without objection, so entered.

[The prepared statement of Mr. Holden follows:]

Congressman Tim Holden
Opening Statement
Committee on Resources Field Hearing:
"Abandoned Mined Land Reclamation Needs of the PA Anthracite Fields"
January 24, 2000

Mr. Chairman, thank you very much for convening this important hearing today to address a very serious problem we face here in Northeastern Pennsylvania: the problem of increased need for federal assistance in reclaiming abandoned mine lands.

From the time that coal was first mined in here in Pennsylvania in the very early 1800's, until 1977, there were no federal laws regulating mining operations. When a particular mine site had been mined of all its potential coal, it was abandoned and the mining operation moved to a new site, unburdened by the environmental and safety problems it left behind. As a result, today there is an estimated 1.1 million acres of abandoned coal mine sites in the United States, more than 17,000 acres of which are in my Congressional District.

Abandoned mine sites pose several problems for those of us who live in the communities that surround them. Here in Northeastern Pennsylvania, The Schuylkill, Susquehanna, and Lackawanna Rivers all contain vast areas of contamination from acid run-off and sedimentation from abandoned mine sites. Acid run-off contaminates thousand of miles of rivers and streams nationwide. The contaminated water eventually serves as the municipal water supply for many citizens in both rural and urban areas. In addition, acid mine drainage leads to increased road maintenance costs, due to the corrosive effects of the drainage on culverts.

Abandoned mine sites have contributed to deaths in several states where Children see them as curious playgrounds, rather than perilous danger zones. Highwalls, open shafts, dilapidated mine structures, and water-filled pits present serious health and safety threats to our constituents. Abandoned mine sites are sometimes within easy walking distance from schools and subdivisions and can easily become deadly play areas.

Abandoned mine lands are often located in the most economically depressed areas of our nation. My Congressional District is a text book example of this phenomenon. Cities and towns in Schuylkill County, my home county, thrived during the mining heydays of the 19th Century and early 20th Century, but were often abandoned when mining activity slowed or halted. All that remains today in many once-populated mining communities in my Congressional District are scared lands and a few residents who have stayed. These areas are in desperate need of new industries to replace the jobs that the coal mining industry once provided. But, the ugly, unsafe eyesores that are abandoned mine sites, make it nearly impossible for these communities to compete for industry and tourism.

In 1977, Congress passed, and President Carter signed into law, the Surface Mining Control and Reclamation Act, commonly know as SMCRA. This long overdue act set forth to regulate the mining industry and correct the problems abandoned mine sites create. SMRCA put an end to the practice of abandoning coal mine sites. Now, coal companies must reclaim lands after they mine them. SMCRA also requires that all active mining operations pay a tax on each ton of coal they produce, at a rate of 35 cents per ton for surface mined coal and 15 cents per ton of deep mined coal. The funds collected from this coal production tax goes into the abandoned Mine Reclamation Fund and are used to finance the reclamation of abandoned coal mine sites.

It is projected that since the inception of the AML trust fund in 1977, cumulative receipts and interest earned from the fund will total more than $5.85 billion in Fiscal Year 2000. Ideally, this money would all be used for mine reclamation. However, as my colleagues all know too well, the funds collected to finance the reclamation of abandoned mine sites must go through the federal budgetary process each year. Congress annually appropriates money from the AML trust fund. The Office of Surface Mining (OSM) then calculates the distribution to each eligible state and Indian tribe from its shares of state an federal apportionments of AML collections.

The trouble begins with Congress. Each year, Congress fails to appropriate the full amount of money collected for mine reclamation. This happens each year for several reasons. In the early years, Congress withheld funds because states had not yet demonstrated that they had an effective plan on the table to use those funds for mine reclamation. Today however, even as state after state has demonstrated its proficiency of using the funds to effectively reclaim scarred lands, Congress still holds back the money. It is projected that for Fiscal Year 2000, the trust fund will have a cumulative unappropriated balance of over $1.5 billion. It does not end there, however. Even if Congress were to appropriate the fund's entire $1.5 billion surplus, it would only put us on a schedule that would take more than 100 years to fully reclaim all the abandoned mine sites that are out there. That is 100 years that we will continue to stifle the much needed economic development in these financially depressed communities.

We need to do more, not less, to reclaim abandoned mines sooner rather than later. The federal government need to do its share to help. My good friend and colleague, Congressman Paul Kanjorski has a plan for how we can do this. He envisions a plan that would create a demonstration project in Pennsylvania. The plan would raise $1.2 billion over thirty years from private investors buying tax free bonds, that would be used for reclaiming each and every abandoned mine left in the anthracite fields of Pennsylvania. Mr. Kanjorski has shared his plan with Congressman Don Sherwood and me, and we look forward to working together to make this plan a reality. It is as simple as this, If we can dig a hole, then given the proper resources, there is nothing preventing we from filling that hole.

It is my hope that we will take what we learn here today back to our colleagues in Washington, and resolve to commit the necessary resources to fill all these holes. We are at the dawn of a new century. We must not let the neglect of previous generations in previous centuries hinder the economic growth and vast potential of our generation and our children's generations in this new century.

The CHAIRMAN. I'd just like to remind Paul we haven't addressed one issue that—I don't know how we're going to get around it—with your bonds issue, it would probably not come under our jurisdiction and that probably goes to Ways and Means and that's something we will have to figure out how to do because they're not inclined sometimes to do such things.

Mr. KANJORSKI. Mr. Sherwood has been talking with the House leadership and there seems to be some indication and a willingness to certainly seriously look at it but this Committee will have jurisdiction over the second part of the idea, the process of creating a specific Federal corporation for administration. Our problem has always been institutional members, Mr. Chairman. None of us will be here 25 or 30 years—either hopefully we will be on the face of the earth but we probably won't be in office.

The CHAIRMAN. I am not going anywhere.

Mr. KANJORSKI. We need a special structure and we have suggested a trust be established as a very lean and mean organization to make sure everybody does what they can do and bring all the parties, Federal, state, county, local and business community, together to accomplish that and keep it together.

The CHAIRMAN. You mentioned bonds. Have you explored the concept of the state issuing the bonds with a Federal guarantee?

Mr. KANJORSKI. Well, actually an authority bond. The state has an authority's act and it allows the various counties to get together and form a municipal authority, multi-county in size, and then the Secretary of the Treasury or the Secretary of Interior would empower that authority under certain conditions that would be expressed in the indenture to issue those bonds with a Federal tax credit. We have done that.

There is one example of school bonds that are presently being done by the Federal Government for that purpose. The President has made the suggestion of Better America Bonds for green ways. It's the same type of funding mechanism. But what it allows us to do, it's really creating within our non-capital budget structure a capital budget rather than relying year to year on appropriations and authorizations that tend to go up and down with economics and with politics. But to do long-term planning and long-term implementation of that planning, it is not the most effective and efficient way to accomplish the end of something that is large, 120,000 acres, 3,000 square miles, to attend to.

The CHAIRMAN. I can tell you that one of the things both of you mentioned that pleases me is that you're not trying to punish the industry or what's left of it, although we do have the Super Fund and in the Super Fund we do punish industries that had nothing to do with the problems that happened a hundred years ago. So I am pleased to hear you say that because this is a very tenuous market right now. The price is not good and I am glad to hear that the present miners following the rules are not being punished for what was done. Actually, the most damage was probably done during World War II.

And we ought to make an issue of that, too, by the way, Don. When you think about it, this area has built the tanks and built the military might that defended this country in one major war on two different fronts and that should be something we can sell as

part of the problem. Coal was mined very rapidly to fill furnaces and build those hard-shell tanks and everything else was done because we were at conflict. A lot of things we do in war we wouldn't do ordinarily so that's one of the major problems. I don't have any other questions at this time. Mr. Sherwood.

Mr. SHERWOOD. Well, I listened with interest to both and they outlined the problem very well. And with Paul's bonds, we just have to see if that's an issue that can be worked through Ways and Means and that we can get people's attention on. And it's intriguing in that it doesn't require an appropriation. It just requires the Government to decide that we are willing to forgo the interest that those bonds would normally pay and then make fiduciaries like insurance companies would pick them up so if it's a 1.2 million dollar issue that would normally pay a 6 percent tax free and that's how you come up with approximately—or 50 million dollars a year in deferred revenue to the Government. It's a very interesting idea and we will have to work it through.

The CHAIRMAN. I would like to ask one other question and maybe a couple more. You've stated, Paul, your frustration with Federal rules contracting out grants, funds, et cetera. Have you discussed this with the Administration about any ideas how to streamline the process? You heard me today on the helicopter, I've been so frustrated in my state with the money that's dumped into the agencies that never gets to the ground.

Mr. KANJORSKI. Absolutely. Mr. Chairman, that's why we're suggesting the corporation, just to remove it from the bureaucracy and allow an administrator appointment by the President and confirmed by the Senate, to have a very lean and mean organization of 25, 30 people with the purpose of oversight, direction and assistance but not to manage it. Let it be managed on a local level.

We've got some already good examples of organizations that are taking on earth conservancy in my district. That's 17,000 acres of land that they've been making restoration on for about 5 years now, very efficiently, every effectively at about half of the cost of what the Federal Government normally spends for that type of process.

Second, you want to encourage local planning and participation, how the land will be used, what it will be done for, and to help plan out the use of that long into the future. This should not be a top-down project of the Federal Government. This should be locally—how we can help is to provide the security that the financing will be in place to implement the final plan. But let the localities, the communities and the state decide their plans in the various areas, go about it and do it in a very efficient way and allow them even to operate countercyclically; that when unemployment goes up that they can put a fence in the field but when we're in a high type point like this, let's not be counterproductive to the business community.

Mr. SHERWOOD. Paul, have you thought about Section 148 in the IRS Code which I am familiar with from school district bonds? We're not allowed to earn arbitrage and arbitrage is one of the main features of your plan. How do we get around that?

Mr. KANJORSKI. OK. I've been meeting with Gene Spurling at the insistence of the President and with Treasury officials and we al-

ready have some very strong indications of a willingness to allow arbitrage to a much longer period of time than it is in existence but I still think we should take it out 20, 30 years. I think we can get an accomplishment of that because as long as the arbitrage funds go for the intended purposes, there's no abuse of that authority and that's exactly what we do. All this money in the bond issue as arbitrage would be returned back and paid up—the long-term end sight of the reclamation work.

Mr. SHERWOOD. I understand its use but that means we have to have a policy change, a new ruling.

Mr. KANJORSKI. No. Actually, in the enactment of the bond itself we can accomplish that. It's very simple. If we left it out entirely, we would have the right to arbitrage indefinitely but we can waive this particular provision or put in a special provision for arbitrage.

The CHAIRMAN. Now I'd like to call up the second panel, Mary Josie Blanchard, Assistant Director, Office of Surface Mining, U.S. Department of Interior; Brad Campbell, who had the pleasure of riding with us today on the helicopter, from the Environmental Protection Agency, Region III; Robert Dolence, Deputy Secretary of Mineral Resources Management, Pennsylvania Department of Environmental Protection; Laure Carlo, Legislative Assistant, the testimony for Edward Staback, House of Representatives, Commonwealth of Pennsylvania. I'll tell you what we're going to do, is I call out Mary Blanchard, you are up first. You are recognized for 5 minutes.

STATEMENT OF MARY JOSIE BLANCHARD, ASSISTANT DIRECTOR, OFFICE OF SURFACE MINING, U.S. DEPARTMENT OF THE INTERIOR

Ms. BLANCHARD. Thank you, Chairman Young, Representatives Sherwood, Kanjorski and Holden. My name is Mary Josie Blanchard. I am the assistant director of the office of surfacing mining. With me today is Bob Biggie who is in charge of our Harrisburg field office and Gene Krueger who's in charge of our division of reclamation support.

On behalf of Director Karpan and Secretary Babbitt, we appreciate the opportunity to appear here in Scranton before the Committee on Resources regarding abandoned mine land reclamation in the anthracite region of Pennsylvania.

The abandoned mine land program does three things. It removes health and safety detriments, it improves the environment and it restores resources to make available for economic development. When the lands and waters are restored, jobs are created, the infrastructure can be improved, individuals can develop a sense of pride in their community and the stage can be set for economic growth.

As you know, coal operators pay a fee to the abandoned mine land fund to reclaim and restore areas affected by past mining. In total the industry has paid approximately 5 billion dollars. Through Fiscal Year 2000, Congress has appropriated 4.2 billion for the purposes of reclaiming land and water. Once funds are appropriated then OSM grants money to the states and tribes based on an established formula.

For the last several years, Pennsylvania has received approximately 24 million dollars a year. For Fiscal Year 2000, the abandoned mine land grant will be 26.6 million dollars; the largest grant to any state. Once a state receives its abandoned mine land funds then the state sets the priorities on the funding for the specific reclamation sites.

Abandoned mine land problems are found nationwide but are highly concentrated in Appalachia. According to the information in the abandoned mine land inventory system, the cost of reclaiming Pennsylvania's inventory of sites would be 4.9 million dollars. Of that, anthracite's region claims approximately 1.9 billion dollars. Almost half of these costs are associated with acid mine drainage.

To deal with the number-one water quality problem in Appalachia, acid mine drainage, OSM created the Appalachian Clean Streams Initiative in 1995. Under this initiative the Office of Surface Mining provides grants to states to attract funds from other public and private organizations for restoring streams with acid mine drainage. The combined effort magnifies the effectiveness of any one group of funds.

Pennsylvania receives approximately 1.7 million annually in clean streams funding, which is more than any other state. An example just right here is in McDade Park where the clean streams initiative will restore Lucky Run. As part of the clean streams initiative, OSM began the Watershed Cooperative Agreement Program last year with local nonprofit watershed organizations that are already improving the water quality in their own communities. In fact, one of the first cooperative agreements was for the Carbon Run site in Northumberland County. Funding of 22 thousand dollars will be used to install a passive treatment system to reduce iron loading in Carbon Run.

In order to proceed more quickly with reclamation work, in 1990 the Administration proposed an increase in appropriations such that by Fiscal Year 2003 it is hoped that appropriations would equal revenues from the fee on coal production. As a first step toward that goal, the Fiscal Year 2000 budget proposed 211 million AML appropriation which would have been a 25 million increase over Fiscal Year 1999. The final AML appropriation for Fiscal Year 2000 dollars is 196 million, which is a 10 million dollar increase over the previous year funding. The Administration is committed to increasing the AML appropriations because it would be tangible economic and environmental benefits in a short period of time.

In summary, a core mission of OSM is the reclamation of land and water damaged by a century of coal mining activities. Nowhere is that legacy more evident than in the anthracite region of Northeastern Pennsylvania. EW Technologies in mapping, treating abandoned mine lands and waters are providing better and more efficient treatment each year. Yet, after a century of cumulative pollution, there is still much work to be done. We are committed to finding better and more effective ways to restore land and water to productive use. We should appreciate the opportunity to appear before the Committee, especially here in the anthracite region of Pennsylvania, and to testify on this issue. Thank you very much.

The CHAIRMAN. Thank you very much. Brad.

[The prepared statement of Ms. Blanchard follows:]

TESTIMONY OF MARY JOSIE BLANCHARD
ASSISTANT DIRECTOR
OFFICE OF SURFACE MINING
U.S. DEPARTMENT OF THE INTERIOR
BEFORE THE
COMMITTEE ON RESOURCES
U.S. HOUSE OF REPRESENTATIVES
SCRANTON, PENNSYLVANIA
JANUARY 24, 2000

Thank you Chairman Young, Representatives Sherwood, Kanjorski, and Holden. My name is Mary Josie Blanchard, Assistant Director of the Office of Surface Mining Reclamation and Enforcement (OSM) at the U.S. Department of the Interior. With me today is Gene Krueger, Chief of the OSM Division of Reclamation Support. On behalf of OSM Director Kathy Karpan and Secretary of the Interior Bruce Babbitt, we appreciate the opportunity to appear before the Committee on Resources today here in Scranton regarding abandoned mine land reclamation in the anthracite region of Pennsylvania.

The Surface Mining Control and Reclamation Act of 1977

Coal, a major energy source for the Nation, must be mined before it can be used. Unfortunately, reclamation carried out following the mining of the coal in the past often was inadequate. It often was implicitly assumed that the permanent degrading of the local surroundings and the pollution of streams was the inevitable price a community had to pay in return for jobs and tax revenue generated by the mining of coal and the need for fuel, especially during war time.

While considering surface mining legislation in the mid-1970's, Congress found that over 1.5 million acres of land had been directly disturbed by coal mining and over 11,500 miles of streams were polluted because of sedimentation or acidity from surface or underground mines. In

EXHIBIT 1
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response to the problems associated with inadequate reclamation of coal mining sites, Congress enacted the Surface Mining Control and Reclamation Act of 1977 (SMCRA).

The two main purposes of SMCRA were (1) to establish a nationwide program to protect society and the environment from the adverse effects of surface mining operations while assuring that the coal supply essential to the Nation's energy requirement is provided, and (2) to promote the reclamation of mined areas left without adequate reclamation prior to the passage of SMCRA. Title V of SMCRA deals with active mining; Title IV deals specifically with the problems associated with inadequate reclamation of abandoned mine lands (AML). Congress created the Office of Surface Mining within the Department of the Interior to administer the provisions of SMCRA.

The Abandoned Mine Lands Program

In Title IV, Congress established the Abandoned Mine Reclamation Fund (Fund) to be used for the reclamation and restoration of areas affected by past mining. The Fund is derived from a reclamation fee collected from coal mine operators on each ton of coal mined since the passage of SMCRA. The fees are 35 cents per ton for surface coal, 15 cents per ton for underground coal and 10 cents per ton for lignite. Collection of the reclamation fee was authorized to continue for 15 years until August 3, 1992. Subsequent amendments to SMCRA contained in the Abandoned Mine Reclamation Act of 1990 and in the Energy Policy Act of 1992 changed certain aspects of Title IV. The 1990 Act extended the fee until September 30, 1995. The 1992 Energy Policy Act extended it to September 30, 2004.

All fees are deposited with the U.S. Treasury into the Abandoned Mine Reclamation Fund. The 1990 amendments provided authority to the Secretary to invest that amount not

currently needed in public debt securities. The interest income from such investment becomes part of the AML Fund, to be used for reclamation purposes. The 1992 amendments directed the Secretary of the Interior to transfer of an amount of interest from the AML Fund necessary to help meet the needs of unassigned retired beneficiaries of the United Mine Workers of America Combined Benefit Fund.

The AML program does three things: (1) it removes health and safety detriments, (2) it improves the environment, and (3) it restores resources to make them available for economic development.

The obvious benefits from the AML program - the restoration of the environment to a safe and aesthetically pleasing condition - needs little explanation. However, other good things follow when lands and water are restored. For example, for every million dollars spent in a community, 17 jobs are created. The infrastructure is improved. Individuals develop a sense of community and pride in that community. This can set the stage for renewed economic growth in areas that often are among the neediest in the Nation.

The Office of Surface Mining's national inventory of problems impacting public health and safety due to past coal mining shows the remaining cost of reclaiming those problems to be approximately $2.5 billion.

In addition to the public health and safety problems, there are an additional $3.6 billion of recently added watershed/general welfare problems in Pennsylvania. Also, there is no complete inventory for problems that are not currently adversely affecting the public health, safety, and general welfare, since SMCRA requires that only Priority 1 and 2 problems be listed. However, estimates of these other problems, referred to as environmental problems, place the

cost to reclaim in excess of $30 billion.

Since inception of the fee through September 30, 1999, OSM has collected approximately $5 billion in 29 states and tribal lands. With the interest earned, a total of $5.45 billion has been deposited in the fund. The reclamation fees cannot be released to OSM, however, until appropriated by Congress. Through FY 2000, Congress has appropriated $4.2 billion to OSM. This leaves an unappropriated balance in the Fund at the end of 1999 of $1.25 billion. The chart attached to this testimony gives the details of AML funding from its inception.

Once funds are appropriated, then OSM grants to the states an amount based on the statutorily established formula. This formula takes into account the amount collected within the state and tribal boundaries and production of coal prior to 1977 in arriving at the grant amounts each year. Pennsylvania has received approximately $24 million a year over the last several years given the amount of annual appropriations. For FY 2000, the AML grant to Pennsylvania will be approximately $26.6 million, the largest grant to any state. Once a state receives AML funds, then it establishes which priority sites will receive funding for reclamation.

Through FY 1999, $3.6 billion (90%) of the amount appropriated has been returned to the states and tribes. Activities funded from fees collected include $3 billion granted to the states and tribal reclamation programs; $366 million spent on emergency and high priority project work by the Federal Reclamation Program - OSM is responsible for reclamation on most tribal lands, in a states that do not have reclamation programs, and for emergencies in States like Pennsylvania that do not have authority to conduct an emergency program; $196 million obligated nationwide for the Rural Abandoned Mine Land Program reclamation work; and $51.5 million granted to the states under the Small Operators Assistance Program.

In order to proceed more quickly with reclamation work, the Clinton-Gore Administration proposed an increase in appropriations so that by FY 2003, appropriations would equal revenues from the fee on coal production. As a first step toward that goal, the FY 2000 budget proposed a $211 million AML appropriation, a $25 million increase over FY 1999. The final AML appropriation for FY 2000 is $196 million. The Administration is committed to increasing the AML appropriations because it would provide tangible economic and environmental benefits in a short period of time.

The Anthracite Region

Abandoned mine land problems are found nationwide but are highly concentrated in Appalachia. Especially high concentrations are found in the anthracite region of Pennsylvania. Approximately $1.9 billion in unreclaimed abandoned mine land problems remain. These include problems associated with highwalls (over $186 million), refuse piles (over $71 million), mine fires (over $570 million) and water impoundments ($22 million). However, the most costly problems are associated with acid mine drainage. An estimated $926 million will be needed to remediate the problem.

The magnitude of these problems indicates that there is much work left to be done. OSM created the Appalachian Clean Streams Initiative in 1995 in order to enhance reclamation in Appalachia and to attack acid mine drainage, the number-one water quality problem in Appalachia. Pennsylvania receives approximately $1.7 million annually in clean streams funding, more than any state. As part of this initiative, OSM began the Watershed Cooperative Agreement Program last year which works with local non-profit watershed organizations that are improving water quality in their own communities. In fact, one of the first cooperative

agreements was with recipients in the anthracite region. The agreement, for the Carbon Run Site, was awarded in Northumberland County. Funding for FY 1999 was $22,000, which will be used to install a passive treatment system to reduce the iron loading in Carbon Run.

OSM is constantly seeking opportunities to work with local groups and to leverage resources. For example, AML funds are eligible to be used as local-share funds when applying for EPA section 319 water grants. OSM is also working with government and private groups in the Upper Lackawanna-Susquehanna River area through the American Heritage Rivers Initiative. Creative cooperation with government, private, non-profit and philanthropic organizations can stretch reclamation dollars farther in order to provide for more cleanup. We are also working closely with Pennsylvania to conduct reclamation under the AML Enhancement Rule, which allows contractors extracting coal as a necessary part of AML projects to sell the coal and keep the proceeds. The rule promotes more reclamation for less funding from the limited AML dollars available. Thus far, Pennsylvania has identified approximately 25 areas to be reclaimed eventually under this program. The OSM Harrisburg Field Office has already issued authorization for work to proceed on six of these sites.

We understand that the Pennsylvania General Assembly last fall approved the Growing Greener initiative for the State. Under that law, $5 million will be made immediately available for the purpose of reclaiming abandoned mines, with an additional $17 million forthcoming in each of the next four years. This funding, when added to the current AML grants, should create tremendous reclamation work in the near future. We are looking forward to working with the State on this effort.

A core mission of OSM is the reclamation of land and water damaged by over a century

of coal mining. Nowhere is that legacy more evident than here in the anthracite region of northeastern Pennsylvania. New technologies in mapping and treating abandoned mine lands and water are providing better and more efficient treatment every year. Yet, after a century of cumulative pollution, there is still much more work to be done. We are committed to finding better and more effective ways to bring dead land and water back to life. We appreciate the opportunity to appear before the Committee, especially in this region, to testify on this issue. Thank you.

Summary Status of Abandoned Mine Reclamation Fund
(Dollars in Thousands)

Fiscal Year	Receipts	Appropriation	Appropriation as a percent of Receipts	Cumulative Unappropriated Balance
1978	105,444	36,647	34.75%	68,797
1979	184,433	61,451	33.32%	191,779
1980	199,000	94,843	47.66%	295,936
1981	192,657	82,485	42.81%	406,108
1982	222,644	115,333	51.80%	513,419
1983	197,196	213,079	108.05%	497,536
1984	216,554	271,228	125.25%	442,862
1985	226,426	296,941	131.14%	372,347
1986	219,162	197,277	90.01%	394,232
1987	215,304	203,720	94.62%	405,816
1988	229,890	199,380	86.73%	436,326
1989	235,493	193,160	82.02%	478,659
1990	243,519	192,771	79.16%	529,407
1991	243,761	198,958	81.62%	574,210
1992	241,954	187,801	77.62%	628,363
1993	238,154	187,930	78.91%	678,587
1994	244,279	190,107	77.82%	732,759
1995	255,433	182,385	71.40%	805,807
1996	256,451	173,871	67.80%	888,387
1997	266,784	177,059	66.37%	978,112
1998	273,039	177,586	65.04%	1,073,565
1999	276,674	185,416	67.02%	1,164,823
2000 *	277,226	195,873	70.65%	1,246,176
Total	5,261,477	4,015,301	76.32%	

** FY 2000 receipt figures are projections.*
Appropriations for FY 1992 - 2000 exclude the transfers to the UMWCBF
As of 12/31/99 AML Unappropriated Balance per DFM equals $1,234,416,292.42.

STATEMENT OF BRADLEY M. CAMPBELL, REGIONAL ADMINISTRATOR, ENVIRONMENTAL PROTECTION AGENCY, REGION III

Mr. CAMPBELL. Chairman Young and Members of the Committee present, good afternoon. My name is Bradley Campbell. I am the Regional Administrator for EPA's Mid-Atlantic Region which encompasses Pennsylvania, Maryland, Virginia, West Virginia, Delaware and the District of Columbia. Thank you for the invitation to talk this afternoon about the impact of abandoned mine drainage on the streams and on the economy of the Commonwealth of Pennsylvania.

As, Mr. Chairman, you, and the Members present witnessed in dramatic terms today, 175 years of coal mining in Pennsylvania has left a legacy of approximately 15 billion dollars worth of abandoned mine problems that dot the landscape in 45 of the state's 67 counties. The figures speak for themselves. More than 2,500 miles of streams polluted by acid mine drainage, 250,000 acres of unreclaimed surface area, 100 million cubic feet of burning coal refuse and potential subsidence that scars the landscape.

In Pennsylvania alone, the acid mine drainage problem encompassing those 2,500 stream miles accounts for approximately 52 percent of all degraded waters in the state and the significance of that problem from EPA's perspective, responsible and charged with implementing the goals of the clean water act, is clear. It is of paramount priority to EPA and to this region that we take head-on the problem of acid mine drainage and we do so seriously.

I appreciate the occasion of this hearing to call attention to really three aspects of the problem, all of which have been mentioned to some extent but which I want to highlight today in my testimony. The first is EPA's programmatic commitment to addressing this problem and in doing so in partnership with OSM and the other agencies that are involved in this issue, and particularly the Commonwealth of Pennsylvania, so that we are approaching this on a unified basis, so that we're setting priorities jointly and so that we're exploiting the expertise of the individual agencies that are represented.

The second is the need for public investment which I think Mr. Kanjorski spoke to eloquently. But I want to add as well a mention of private incentive so that not only the work of the Federal agencies is coordinated and well supported but so that wherever possible we have incentives in place that bring to bear the resources of the private sector.

Just briefly, in terms of EPA's programmatic commitment, acid mine drainage is obviously a central focus of the Administration's clean water action plan initiated by President Clinton and Vice President Gore. Under the framework established by that plan and working on a coordinated basis among agencies, the Administration is committed to—and EPA in particular is committed to increasing to 150 miles per year the stream miles of acid mine drainage that we're addressing on an annual basis. We're committed to increasing by 50 percent and have now increased by 50 percent the number of on-the-ground projects we as an agency have or are putting in place to address this problem.

We are also further committed, again coordinating our work with the other agencies, to demonstrating new technologies, new approaches that can be used to address this problem and we're particularly thankful to Mr. Kanjorski with whose help we have a 1.2 million dollar project on the ground that is using constructive wetlands as a means of filtering acid mine drainage to see—not only to address the problem in that particular area but also to demonstrate as part of a broader effort to try out the new technologies, as Mr. Sherwood recognized, that we're going to need if we're going to take on this problem in a cost-effective way of making the best use of the public resources.

Moving to the issue of public investment, we as an administration and EPA in particular believe that this problem here in Northeastern Pennsylvania is typical of the type of problem that could be appropriately addressed through Better America Bonds. The President's proposal for a bonding mechanism that would generate more than 9 billion dollars nationally for precisely the types of projects that would protect clean water from acid mine drainage, that would help redevelop the kind of mine-scarred brown fields that dot the landscape here in Northeastern Pennsylvania. Again, it follows the type of model that the Chairman outlined earlier in this hearing, not creating new Federal offices or positions but using local initiative, locally lead projects, locally developed proposals but funding them using a mechanism that would offer investors a tax credit in lieu of a payment of interest to investors and we think that's an important proposal, that it offers a great deal of promise for this region, as I've discussed with certain Members of this Committee, and one that we hope that Congress will go forward with in this session. It also by the way is fully accounted for within the President's budget proposal which is another aspect of the Better America Bond proposal which would allow us to move forward with it quickly.

The final issue I want to raise just briefly is that of private incentive. Mr. Kanjorski among others has been a co-sponsor of a bill, H.R. 1750, that in addition to the elements of programmatic commitment and public investment, would help bring private investment into areas that are mine scarred like those in Eastern Pennsylvania. Specifically it's a brown fields bill on which there's broad consensus of the elements of it but in particular is relevant to this problem that would clarify the rules of liability—Super Fund liability for new investors, redevelopers, who on the margins of some of these affected towns and communities might be able to bring greater resources and could be encouraged to add their investments to the solution to addressing the problems we saw today. And with that, I thank you very much, Mr. Chairman.

The CHAIRMAN. Thank you, Brad, for coming. Robert.

[The prepared statement of Mr. Campbell follows:]

TESTIMONY OF
BRADLEY M. CAMPBELL
REGIONAL ADMINISTRATOR
U.S. ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE
COMMITTEE ON RESOURCES
U.S. HOUSE OF REPRESENTATIVES

Field Hearing
University of Scranton
Scranton, Pennsylvania
January 24, 2000

Good afternoon, Mr. Chairman and members of the Committee. I am Bradley M. Campbell, Regional Administrator for the U.S. Environmental Protection Agency's (EPA's) Mid-Atlantic Regional Office in Philadelphia. The Mid-Atlantic Region includes Pennsylvania, Delaware, Maryland, Virginia, West Virginia, and the District of Columbia. Thank you for the invitation to talk to you this afternoon about the impact of abandoned mine drainage (ADM) on the streams and economy of the Commonwealth of Pennsylvania.

More than 175 years of coal mining in Pennsylvania has left a legacy of approximately $15 billion in abandoned mine problems that dot the landscape in 45 of the State's 67 counties (source: Pennsylvania Department of Environmental Protection). These problems include: more than 2,500 miles of streams polluted by acid mine drainage; 250,000 acres of unreclaimed surface mine land; 100 million cubic feet of burning coal refuse and potential subsidence problems for hundreds of thousands acres.

The Commonwealth of Pennsylvania reports that abandoned mine drainage is the most significant source of surface water quality degradation in Pennsylvania. Drainage from mining sites pollutes at least 2,500 miles of streams representing 52% of all degraded streams in the

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Commonwealth. Other sources of degradation include agriculture (impacting 694 miles), municipal sewage treatment plants (impacting 241 miles), and industrial point sources (impacting 206 miles). Pennsylvania estimates that more than $67 million is lost each year in recreational values as a result of acid mine drainage.

Eliminating acid mine drainage alone from abandoned mines will require a $5 billion investment in Pennsylvania alone. (Source: Pennsylvania Department of Environmental Protection). The $15 billion estimate for all acid mine related problems includes this $5 billion for acid mine drainage. Over recent decades, the State has aggressively sought to treat acid mine drainage from abandoned mine lands, and to prevent contamination from permitted active mining operations. Despite these concerted efforts, much still remains to be accomplished.

Resolving the AMD problem is a real challenge requiring both an investment of resources and innovative technical approaches. For example, since 1994, when EPA assigned greater priority to the acid mine drainage problems from abandoned mine lands, the Agency has devoted more than $12 million to addressing these problems. The sources of these funds have principally been from the Clean Water Act Section 319 Non-Point Source Program, and from the Section 104(b)(3) State allotments. Additionally, since 1995, $2 million of the above monies have been expended in eastern Pennsylvania on AMD projects with State and local partners.

I would like to emphasize that a number of federal agencies play a role in the federal effort to address the environmental impacts of coal mining. These include, the Department of Interior's Office of Surface Mining (OSM), the Department of Agriculture's Natural

Resources Conservation Service (NRCS), and the Department of Energy's National Energy Technology Laboratory (NETL). These and other federal agencies are represented on the Eastern Mine Drainage Federal Consortium, chaired by EPA. Several concerned coal-producing States also have combined their efforts to develop comprehensive watershed restoration strategies to address those environmental impacts and to improve water quality in the areas where abandoned mines are located.

My colleague from the Office of Surface Mining will discuss the Abandoned Mine Reclamation Fund. States and grassroots' organizations have asked Congress for increased appropriations from this Fund; as of 1999, there was approximately $1.25 billion in the Fund, of which Pennsylvania received $22 million for projects impacting public health and safety, and $2.2 million in the "10% set aside" for AMD remediation. Clearly, this Fund is an important source of funding.

Several years ago, after taking a hard look at the serious water pollution problems around the country, the Administration concluded that simply implementing existing programs was not stopping serious new water pollution threats to public health and living resources of the Nation's waters. The Administration concluded that clean water programs lacked the strength, resources, and framework to finish the job of restoring rivers, lakes, and coastal areas.

In response to this concern, the President announced, in February of 1998, a major new effort to speed the restoration of the Nation's waterways. The **Clean Water Action Plan** builds on the solid foundation of the Clean Water Act and describes over 100 actions -- based on existing statutory authority -- to strengthen efforts to restore and protect our nation's waters.

The **Clean Water Action Plan** is built around four key tools to achieve clean water goals: a watershed approach, strong federal and State standards, natural resource stewardship, and informed citizens and officials. Let me talk briefly about the first two. With the watershed approach, the Clean Water Action Plan envisions an improved collaborative effort by federal, State, Tribal, and local governments; the public; and the private sector to restore and sustain the health of the over 2,000 watersheds in the country. The watershed approach provides a framework for water quality management and is a key to setting priorities and taking action to clean up rivers, lakes, and coastal waters.

With strong federal and State standards, EPA and States will address point sources of pollution contributing to impaired waterways. As an example of complying with those standards, we might want to look at the State's nomination of stream segments which appear on the list of waterways impaired by various pollutants including those from coal mine drainage. The State -- or if the State is incapable, EPA -- is developing resource management plans for these stream segments. These plans, also known as Total Maximum Daily Loadings or TMDLs, involve a broad spectrum of stakeholders in developing pollution allocations and implementation plans with the goal of restoring the habitat and bringing the stream segments to their previous uses.

We are making good progress in implementing the over 100 specific actions described in the Clean Water Action Plan. Congress has provided vital support to this work by appropriating critical funding, including almost doubling funding for reducing polluted runoff to the level of $200 million per year. A key action item of the Plan requires EPA and the Office of Surface Mining to increase by 50% the number of cooperative projects to clean up rivers

and streams polluted by coal mine drainage. This objective has been achieved. EPA has also successfully partnered with the Office of Surface Mining, the Natural Resources Conservation Services, the Corps of Engineers, and the National Energy Technology Laboratory in investigating new technical responses to the AMD problems, as well. The Clean Water Action Plan is a sound blueprint for implementing clean water programs in this new century.

In the FY 2000 Budget, the Administration proposed a new tool that would have given States, Tribes, and local communities another mechanism they could have used to create healthy, livable communities and thriving economies. Better America Bonds could have been used to fund projects that preserve and enhance open space, clean up brownfields, and protect water quality. They could have offered communities like Scranton creative ways to restore our environment and improve the quality of life. Land trust groups, environmentalists, business leaders, and other groups would have had an opportunity to define specific ways to address acid mine problems.

The Better America Bonds program would have been administered in a similar manner as EPA's successful Brownfields program. The Brownfields program has helped more than 300 communities leverage more than $1 billion to clean up and redevelop abandoned properties.

As a part of the Administration's Livability Agenda, the Better America Bonds proposal was included in the President's proposed FY2000 budget. To become law, it required a change in the tax code. On Capitol Hill, versions of the Better America Bonds proposal were introduced -- in the House of Representatives, "Better America Bonds Act" (HR 2446) and in

the Senate, the "Community Open Space Bonds Act" (S.1558). Better America Bonds remain a high priority for the Administration and EPA.

Mr. Chairman and members of the Committee, I would be happy to answer any questions you may have.

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STATEMENT OF ROBERT DOLENCE, DEPUTY SECRETARY FOR MINERAL RESOURCES MANAGEMENT PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Mr. DOLENCE. Good afternoon, Mr. Chairman and Members of the Committee. My name is Bob Dolence and I am the Deputy Secretary for Mineral Resources Management at the Pennsylvania's Department of Environmental Protection. On behalf of Governor Ridge and Secretary Jim Seif, I want to thank you for this opportunity to speak with you about mine reclamation.

Pennsylvania's rich industrial heritage and abundant natural resources have been and will continue to be strengths in providing jobs for our citizens and in increasing the prosperity and economic vitality of the commonwealth and of our Nation. A portion of that legacy, however, is a large inventory of abandoned mines, acid-degraded streams and unsafe shafts and high walls around the state. Repairing that damage from the past is one of the best ways we can improve both the economic vitality and the quality of life in Pennsylvania in the future. I will not provide the detail verbally that's in the written, submitted testimony. We estimate the cost of addressing these priority 1 and 2 problems in the anthracite region to be almost 2 billion dollars excluding AMD treatment costs.

As mentioned earlier, the AML fund established by Congress and funded by the coal operators in Pennsylvania as well as other mining states has been appropriated sparingly in recent years resulting in a large balance of funds. Over 1.3 billion dollars collected for reclamation is sitting idle while problems are still unaddressed. It is a great frustration to the citizens of Pennsylvania, to the coal operators of Pennsylvania who contribute to the fund, to DEP and to this Administration that such a large sum of money collected expressly to meet this important need has been held hostage to the budget process in Washington.

Getting this money released from Washington so that it can be put to the use for which it was intended is one of Governor Ridge's top priorities. He has personally carried that message to Washington several times in the past and I reiterate that request today.

For the past several years, Pennsylvania's annual allocation from the Title IV appropriation has averaged about 22 million dollars, down from a high of 66 million dollars in 1984.

In the anthracite region, DEP has completed 306 reclamation projects with direct construction costs of about 160 million dollars. These projects have involved about 10,000 acres. We believe that Pennsylvania has put to good use the funding that we have received under Title IV, and I believe that the best chance to accelerate our rate of progress throughout the state is for Congress to increase the appropriations from the AML trust.

While we cannot address all of our mining reclamation needs throughout the state without increasing funding from Congress, we have not rested on that hope alone for progressing. Governor Ridge recently signed into law the Environmental Stewardship and Watershed Protection Act, which embodied his Growing Greener Initiative. This legislation was adopted with the very effective help and leadership of Senator Ray Musto and Representative David Argall, both of whom represent districts in the anthracite region. Growing Greener is the largest single investment of state funds in

our history to help improve Pennsylvania's environment, making nearly 650 million dollars available over the next 5 years for grants for projects that protect and restore watersheds.

Another legislative change that was adopted by the general assembly on the same bill as Growing Greener was the Environmental Good Samaritan statute. This statute provides protection from legal and environmental liability for groups voluntarily undertaking mine reclamation or gas well reclamation.

The Ridge Administration is stating to the public, "if you take this challenge on in good faith and are not negligent in doing so, you are protected from third-party lawsuits and with Growing Greener, you have the opportunity for funding to assist with the restoration."

Additional program enhancements designed to involve public participation and encourage more industry reclamation of abandoned mine sites may be found in the Governor's Reclaim PA initiative. This effort compliments Growing Greener and Environmental Good Samaritan.

Pennsylvania coal has powered this Nation's industrial growth in the past and it continues to fuel the industrial and heating needs of today. Pennsylvania is committed to doing its share and more to remedy the scars of mining that remain.

We would urge the Congress to release more of the funds that have already been collected for reclamation so that we can accelerate our progress in repairing the environment and protecting the safety of our citizens throughout the commonwealth. Thank you very much for the opportunity this afternoon.

The CHAIRMAN. Thank you, Robert. Laure.

[The prepared statement of Mr. Dolence follows:]

TESTIMONY OF
ROBERT DOLENCE, DEPUTY SECRETARY FOR
MINERAL RESOURCES MANAGEMENT
PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
BEFORE THE
COMMITTEE ON RESOURCES
U.S. HOUSE OF REPRESENTATIVES

JANUARY 24, 2000
SCRANTON, PA

Good afternoon Mr. Chairman and members of the committee.

My name is Bob Dolence and I am the Deputy Secretary for Mineral Resources Management at the Pennsylvania Department of Environmental Protection (DEP). On behalf of Governor Ridge and Secretary Jim Seif, I want to thank you for this opportunity to speak with you about mine reclamation.

Pennsylvania's rich industrial heritage and abundant natural resources have been and will continue to be strengths in providing jobs for our citizens and in increasing the prosperity and economic vitality of the Commonwealth, and of our nation. A portion of that legacy however, is a large inventory of abandoned mines, acid-degraded streams, and unsafe shafts and highwalls around the state. Repairing that damage from the past is one of the best ways we can improve both the economic vitality and the quality of life in Pennsylvania in the future.

In Pennsylvania we estimate the cost of addressing all of the abandoned mine land problems statewide, including acid mine drainage (AMD), to be approximately 15 billion dollars. Over 2,400 miles of Pennsylvania's 83,000 miles of streams are polluted by acid mine drainage. There are over 252 miles of unreclaimed and dangerous highwalls, over 1200 open portals and vertical shafts, approximately 45 active deep mine fires, and 200,000 acres of subsidence prone land.

In the anthracite region of Pennsylvania, there are 929 identified abandoned mine problem areas that meet the Office of Surface Mining's definition of Priority 1 and 2 projects. Priority 1 projects protect public health and safety from extreme danger, while Priority 2 projects protect public health and safety from adverse effects of coal mining practices. These projects cover about 45,000 acres of land. Each problem area may contain anywhere from 1 to 20 abandoned mine land features. The types of features may include

highwalls -- the cliff faces of surface mines -- where deaths and injuries frequently occur from falls;

water-filled pits at the base of highwalls which present a risk of drowning;

subsidence, which damages homes and other surface structures;

and several other problems that compromise the health and safety of the public.

We estimate the cost of addressing these priority one and two problems in the anthracite region to be almost 2 billion dollars, excluding AMD treatment costs.

Title IV of the Surface Mining Control and Reclamation Act of 1977 (SMCRA), which authorized The Abandoned Mine Land program, is one important asset that could accelerate our ability to address these problems, but we feel that it is currently being underused. As I am sure you know, the Abandoned Mine Reclamation Trust Fund, established by Congress, and funded by the coal operators in Pennsylvania as well as other mining states, has been appropriated sparingly in recent years, and a large balance of funds, over 1.3 billion dollars, collected for reclamation, is sitting idle while problems go unaddressed.

It is a great frustration to the citizens of Pennsylvania, to the coal operators of Pennsylvania who contribute to the fund, to DEP and to this administration, that such a large sum of money, collected expressly to meet this important need, has been held hostage to the budget process in Washington.

Getting this money released from Washington, so that it can be put to the use for which it was intended, is one of Governor Ridge's top priorities. He has personally carried that message to Washington several times in the past, and I reiterate that request today.

For the past several years, Pennsylvania's annual allocation from the Title IV appropriation has averaged about 22 million dollars, down from a high of 66 million dollars in 1984. In total, since the passage of SMCRA in 1977, Pennsylvania has received grant allocations totaling over 470 million dollars. These reclamation efforts have

Restored 27 miles of stream channel;

Eliminated 142 dangerous water impoundments or hazardous water bodies;

Completed 127 replacement water supply projects;

Restored 20, 466 acres of land;

Eliminated in excess of 93 miles of dangerous highwalls;

Sealed 831 portals and vertical openings;

Extinguished mine fires beneath 800 acres of surface land; and

Reduced the subsidence risk to approximately 2200 acres of land.

In the anthracite region, DEP has completed 306 reclamation projects with direct construction costs of about 160 million dollars since Title IV funding became available. These projects have involved about 10,000 acres.

We believe that Pennsylvania has put to good use the funding that we have received under Title IV, and believe that the best chance to accelerate our rate of progress throughout the state is for Congress to increase the appropriations from the Abandoned Mine Lands Trust Fund.

Pennsylvania also supports additional flexibility in the application of Title IV funding that would allow innovative approaches to remediation that can reduce costs, improve efficiency, better leverage other sources of funding, and promote the development and use of new technologies

While we cannot address all of our mining reclamation needs throughout the state without increased funding from Congress, we have not rested on that hope alone for progressing. Governor Ridge recently signed into law the Environmental Stewardship and Watershed Protection Act, which embody his "Growing Greener" initiative. This legislation was adopted with the very effective help and leadership of Senator Ray Musto and Representative David Argall, both of whom represent districts in the anthracite region. Growing Greener is the largest single investment of state funds in our history to help improve Pennsylvania's environment, making nearly 650 million dollars available over the next five years for grants for projects that protect and restore watersheds.

Specific grant activities will include abandoned mine cleanup efforts, oil and gas well plugging, and planning and implementing local watershed-based conservation efforts including those that abate acid mine drainage. These grants can be used to leverage the efforts and resources of local governments and watershed associations, and can be used as the required match for other sources of funds. This funding will help communities to address the problems that they choose as priorities, and will create opportunities for desirable economic development.

Less than two weeks ago, DEP sponsored a grant workshop in Wilkes-Barre, as part of a series of such workshops currently being held around the state, to assist interested parties in applying for Growing Greener grants. Over 170 people attended, representing counties, authorities and municipalities or volunteer associations involved in watershed protection. We are greatly encouraged by the enthusiastic reception to this new program and excited about this opportunity to address the environmental needs of this area.

Another legislative change that was adopted by the Pennsylvania General Assembly on the same bill as Growing Greener was the "Environmental Good Samaritan" statute. This statute provides protection from legal and environmental liability for groups voluntarily undertaking mine reclamation or oil or gas well reclamation. Liability protection will

extend to both the group doing the actual reclamation work as well as to the property owner who takes on the challenge of restoring abandoned mine lands.

The Ridge Administration is stating to the public, "If you take this challenge on in good faith, and are not negligent in doing so, you are protected from third party lawsuits and, with Growing Greener, you have the opportunity for funding to assist with the restoration."

Pennsylvania has also been a leader in the promotion of remining. Remining is active mining that includes the reclamation of an abandoned mine land site while recovering the hard coal resource. DEP's regulations provide protection to operators who remine sites with mine drainage. In essence, the operator is only responsible if the pre-existing discharge should worsen. We have issued 260 remining permits since the mid-1980s and in only 12 cases has the permitee been required to treat the discharge during or after mining.

Additional program enhancements designed to involve public participation and encourage more industry reclamation of abandoned mine sites may be found in the Governor's Reclaim PA initiative. Announced in October of 1998, this effort compliments Growing Greener and Environmental Good Samaritan programs.

Pennsylvania coal has powered this nation's industrial growth in the past and it continues to fuel the industrial and heating needs of today. Pennsylvania is committed to doing its share and more to remedy the scars of mining that remain, and the record that I have recounted is a strong one. Through innovative programs like Growing Greener, Reclaim PA, Good Samaritan, and re-mining, Pennsylvania has stepped up to the plate with new resources and new ideas. But, in spite of our best efforts, the needs far outstrip the resources available.

Pennsylvania coal has powered this nation's industrial growth in the past and it continues to fuel the industrial and heating needs of today. Pennsylvania is committee to doing its share and more, to remedy the scars of mining that remain, and the record that I have recounted is a strong one. Through innovative programs like Growing Greener, Reclaim Pennsylvania, Good Samaritan, and re-mining, Pennsylvania has stepped up to the plate with new resources and new ideas. But, in spite of our best efforts, the needs far outstrip the resources available.

We would urge the Congress to release more of the funds that have already been collected for reclamation, so that we can accelerate our progress in repairing the environment and protecting the safety of our citizens throughout the Commonwealth.

Thank you very much for the opportunity to testify before your committee, and I would be happy to answer any questions.

STATEMENT OF LAURE CARLO, LEGISLATIVE ASSISTANT, THE HONORABLE EDWARD G. STABACK, HOUSE OF REPRESENTATIVES, COMMONWEALTH OF PENNSYLVANIA

Ms. CARLO. Good afternoon. Laure Carlo, aide to Representative Staback. I am offering testimony on his behalf. He's in Harrisburg today.

Dear Committee Members, I appreciate this opportunity to present testimony to the Committee. Unfortunately, since the State House of Representatives is in session today, I am unable to attend your meeting in person, however, I do have very strong feelings regarding the abandoned mine projects left undone in the Northeast and am pleased to have this forum to share my thoughts with you.

At the beginning of the Year 2000, our state's lands remain scarred by the remnants of its past. Pennsylvania's contribution of coal to the Industrial Revolution of the 19th and 20th Centuries has left a legacy of depleted, dangerous terrain and polluted waterways throughout the commonwealth. Over 250,000 acres of mine lands are abandoned and 2,400 miles of streams are polluted with acid mine drainage spotting the state with hazards to health and obstacles to growth. Pennsylvania has one-third of the Nation's abandoned mine lands. Currently, there are 44 underground mine fires and 34 surface mines burning; throughout the state, there are 2,400 documented health and safety hazards and the estimate to repair our land and water is 15 billion dollars. The Department of Environmental Protection Bureau of Abandoned Mine Reclamation completes around 150 projects each year through the expenditure of approximately 20 million dollars received from the Federal Government. Approximately 10 million dollars from that expenditure goes to the bituminous region in Western Pennsylvania and 10 million goes to the anthracite region in the Northeast. From that Federal allocation, administrative costs are taken from the top. In the northeast, after administrative costs are subtracted, only about half of the original allocation of 10 million dollars remains for actual use on projects in the field. The cost to repair the projects already identified in just my legislative district, the 115th, is greater than the total yearly expenditure for the entire anthracite region of Central and Northeastern Pennsylvania. At this rate of funding and reclamation, our state's present problems will be solved in just under 469 years. Needless to say, that is totally unacceptable. The recent Growing Greener law, House Bill 868, creates the Environmental Stewardship and Watershed Protection Fund. From that fund, the Department of Environmental Protection will receive a percentage to serve, in part, as a state funding source for abandoned mine reclamation projects within DEP. However, since abandoned mine projects will compete against restoration projects for watersheds and reclamation projects for oil and gas wells, no one knows how much money the state will contribute in the future. Budgets for mine projects cannot rely upon a floating percentage that has no statutory limits. Therefore, though Growing Greener offers potential for new state contributions to abandoned mine reclamation, the value of that effort is yet unproven. As our state faces the immense environmental challenge of reclaiming its damaged lands, programs such as Growing Greener and other related state efforts such as Reclaim Pennsylvania, frankly, are steps in

the right direction with proper intentions but which are nearly insignificant when compared to the enormity of the cleanup task. While these efforts are underway to scrape together funds and stretch resources to accomplish just a few of the health and safety projects necessary throughout the state, the Federal Abandoned Mine Reclamation Fund grows. I am aware of the obvious budgetary maneuverings that has placed the more than 1 billion dollars of this fund out of grasp of needy states. However, the fund still grows. We who are involved in this issue understand why the billion-dollar jackpot is not to be allocated. But why should companies continue to contribute dollars that could be spent by states on cleanup efforts to a fund that is an established budgetary facade? The trust fund needs no additional dollars if they are to be used merely as accounting tools to balance the Federal budget. Obviously, the yearly payments by mining companies at work in this state would be best used for cleanup projects within Pennsylvania's borders. The freezing of its assets has thwarted the purpose of the Abandoned Mine Reclamation Fund. By returning the new contributions, those yearly allocations could be spent wisely before they are lost along with the other resources now awaiting allocation in the fund. I urge the Committee to support the return of these yearly contributions to the states in which the contributing company mines. While the spoiled lands of the northeast await reclamation, its economy and its people suffer. Opportunities for economic rehabilitation are lost because of spoiled landscapes and polluted waters. Simply stated, quick and complete reclamation will result in quick and complete economic recovery. Every dollar that is spent in mine reclamation prepares the land for economic investment, whereas, abandoned mines are now wasted property, each reclaimed site becomes a land of opportunity. I have submitted a list of projects to the Committee for its file that are identified for reclamation within my legislative district in Lackawanna County. Each of these sites is a present-day danger and represents a lost opportunity for residential and economic development. With your help, the lands of the northeast will no longer be a scarred testament to Pennsylvania's past but will become a reclaimed promise for its future. Thank you.

[The prepared statement of Mr. Staback follows:]

EDWARD G. STABACK, MEMBER
307 BETTY STREET
POST OFFICE 305
ARCHBALD/EYNON, PENNSYLVANIA 18403-0305
PHONE: (717) 876-1111

HOUSE BOX 202020
HARRISBURG, PENNSYLVANIA 17120-2020
PHONE: (717) 783-5043

House of Representatives
COMMONWEALTH OF PENNSYLVANIA
HARRISBURG

COMMITTEES

GAME AND FISHERIES, VICE CHAIRMAN
CONSUMER AFFAIRS
COMMERCE AND ECONOMIC DEVELOPMENT, SECRETARY
APPROPRIATIONS
POLICY

Testimony to the Committee on Resources

January 24, 2000

Abandoned Mined Land Reclamation Needs of the Pennsylvania Anthracite Fields

Edward G. Staback, State Representative
307 Betty Street
Archbald-Eynon, PA 18403
570-876-1111

Testifying on his behalf is Laure Carlo, Legislative Assistant

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EDWARD G. STABACK, MEMBER
307 BETTY STREET
POST OFFICE 305
ARCHBALD/EYNON, PENNSYLVANIA 18403-0305
PHONE: (717) 876-1111

HOUSE BOX 202020
HARRISBURG, PENNSYLVANIA 17120-2020
PHONE: (717) 783-5043

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January 24, 2000

Committee on Resources
United States House of Representatives
C/O The Honorable Don Sherwood
Scranton Life Building
538 Spruce Street, Suite 514
Scranton, PA 18503

Dear Committee Members:

I appreciate this opportunity to present testimony to the Committee. Unfortunately, since the state House of Representatives is in session today, I am unable to attend your meeting in person. However, I do have very strong feelings regarding the abandoned mine projects left undone in the Northeast and am pleased to have this forum to share my thoughts with you.

At the beginning of the year 2000, our state's lands remain scarred by the remnants of its past. Pennsylvania's contribution of coal to the industrial revolution of the 19th and 20th Centuries has left a legacy of depleted, dangerous terrain and polluted waterways throughout the Commonwealth. Over 250,000 acres of mine lands are now abandoned and 2,400 miles of streams are polluted with acid mine drainage, spotting the state with hazards to health and obstacles to growth. Pennsylvania has one third of the nation's abandoned mine lands; currently, there are 44 underground mine fires and 34 surface mines burning; throughout the state, there are 2,400 documented health and safety hazards, and the estimate to repair our land and water: 15 billion dollars.

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The Department of Environmental Protection Bureau of Abandoned Mine Reclamation completes around 150 projects each year through the expenditure of approximately 20 million dollars received from the Federal Government. Approximately 10 million dollars from that expenditure goes to the bituminous region in Western Pennsylvania and 10 million goes to the anthracite region in the Northeast. From that federal allocation, administrative costs are taken from the top. In the Northeast, after administrative costs are subtracted, only about half of the original allocation of 10 million dollars remains for actual use on projects in the field. The cost to repair the projects already identified in just my legislative district, the 115th, is greater than the total yearly expenditure for the entire anthracite region of Central and Northeastern Pennsylvania.

At this rate of funding and reclamation, our state's present problems will be solved in just under 469 years. Needless to say, that is totally unacceptable.

The recent Growing Greener law, House Bill 868, creates the Environmental Stewardship and Watershed Protection Fund. From that Fund, the Department of Environmental Protection will receive a percentage (43.7% in 2000 and 37.4% in 2001) to serve, in part, as a state funding source for abandoned mine reclamation projects within DEP. However, since abandoned mine projects will compete against restoration projects for watersheds and reclamation projects for oil and gas wells, no one knows how much money the state will contribute in the future. Budgets for mine projects cannot rely upon a floating percentage that has no statutory limits. Therefore, though Growing Greener offers potential for new state contributions to abandoned mine reclamation, the value of that effort is yet unproven.

As our state faces the immense environmental challenge of reclaiming its damaged lands, programs such as Grower Greener and other related state efforts such as RECLAIM PA, frankly, are steps in the right direction with proper intentions, but which are nearly insignificant when compared to the enormity of the cleanup task.

While these efforts are underway to scrape together funds and stretch resources to accomplish just a few of the health and safety projects necessary throughout the state, the federal Abandoned Mine Reclamation Fund grows. I am aware of the obvious budgetary maneuverings that has placed the more than 1 billion dollars of this fund out of the grasp of needy states. However, the fund still grows. We who are involved in this issue understand why the billion-dollar jackpot is not to be allocated. But why should companies continue to contribute dollars that could be spent by states on cleanup efforts to a fund that is an established budgetary façade?

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While the spoiled lands of the Northeast await reclamation, its economy and its people suffer. Opportunities for economic rehabilitation are lost because of spoiled landscapes and polluted water. Simply stated, quick and complete reclamation will result in quick and complete economic recovery. Every dollar that is spent in mine reclamation prepares the land for economic investment. Whereas abandoned mines are now wasted property, each reclaimed site becomes a land of opportunity.

I have submitted a list of projects to the Committee that are identified for reclamation within my legislative district in Lackawanna County. Each of these sites is a present-day danger and represents a lost opportunity for residential and economic development.

With your help, the lands of the Northeast will no longer be a scarred testament to Pennsylvania's past but will become a reclaimed promise for its future.

Sincerely,

Edward G. Staback, Member
115th Legislative District

Lackawanna and Wayne Counties AML Problems

County Name	Municipal Name	Acres	Height	Length	Problem Code	Project Cost	Problem #	Feature #
LACKAWANNA	ARCHBALD B	3	30	0	22	0	1357	10
LACKAWANNA	ARCHBALD B	14	35	0	53	0	3755	18
LACKAWANNA	ARCHBALD B	2	20	250	20	0	1763	07
LACKAWANNA	ARCHBALD B	5	0	0	53	0	1763	14
LACKAWANNA	ARCHBALD B	23	0	0	53	0	1763	15
LACKAWANNA	ARCHBALD B	1	0	0	20	0	3754	26
LACKAWANNA	ARCHBALD B	30	0	0	53	0	1763	16
LACKAWANNA	ARCHBALD B	7	25	800	22	0	1763	17
LACKAWANNA	ARCHBALD B	2	23	400	20	0	1763	19
LACKAWANNA	ARCHBALD B	3	20	0	22	0	3753	04
LACKAWANNA	ARCHBALD B	3	55	800	20	0	1357	09
LACKAWANNA	ARCHBALD B	2	25	200	20	0	3753	03
LACKAWANNA	ARCHBALD B	1	35	0	41	0	3754	35
LACKAWANNA	ARCHBALD B	2	30	400	20	0	3755	01
LACKAWANNA	ARCHBALD B	3	30	60	20	0	3755	02
LACKAWANNA	ARCHBALD B	6	30	800	20	67250	3755	03
LACKAWANNA	ARCHBALD B	2	35	0	22	0	1357	11
LACKAWANNA	ARCHBALD B	2	25	200	20	50000	3753	02
LACKAWANNA	ARCHBALD B	9	45	2500	20	180000	3754	07

County Name	Municipal Name	Acres	Height	Length	Problem Code	Project Cost	Problem #	Feature #
LACKAWANNA	ARCHBALD B	24	35	0	20	200000	3754	08
LACKAWANNA	ARCHBALD B	47	30	1400	20	2033000	1764	02
LACKAWANNA	ARCHBALD B	1	40	500	20	300000	1310	07
LACKAWANNA	ARCHBALD B	2	25	600	20	0	3753	01
LACKAWANNA	ARCHBALD B	19	0	0	53	0	3752	17
LACKAWANNA	ARCHBALD B	3	0	0	53	0	3752	16
LACKAWANNA	ARCHBALD B	2	0	0	53	0	3752	15
LACKAWANNA	ARCHBALD B	2	60	325	20	0	1357	07
LACKAWANNA	ARCHBALD B	4	60	0	22	0	1357	06
LACKAWANNA	ARCHBALD B	3	45	0	22	0	1357	05
LACKAWANNA	ARCHBALD B	34	130	0	22	0	1357	04
LACKAWANNA	ARCHBALD B	17	25	0	22	0	1763	03
LACKAWANNA	ARCHBALD B	13	65	0	22	0	3752	07
LACKAWANNA	ARCHBALD B	6	20	0	20	0	3755	05
LACKAWANNA	ARCHBALD B	100	60	600	22	0	1310	06
LACKAWANNA	ARCHBALD B	3	35	200	20	0	1310	04
LACKAWANNA	ARCHBALD B	1	25	200	20	0	1310	03
LACKAWANNA	ARCHBALD B	2	20	0	20	0	3755	06
LACKAWANNA	ARCHBALD B	1	15	0	20	0	3754	27
LACKAWANNA	ARCHBALD B	15	35	0	20	0	3754	31
LACKAWANNA	ARCHBALD B	2	40	150	20	0	3754	32

County Name	Municipal Name	Acres	Height	Length	Problem Code	Project Cost	Problem #	Feature #
LACKAWANNA	ARCHBALD B	7	15	0	22	0	1760	07
LACKAWANNA	ARCHBALD B	2	25	150	20	0	3752	14
LACKAWANNA	ARCHBALD B	37	0	0	20	0	1764	15
LACKAWANNA	ARCHBALD B	10	25	1000	20	0	3755	04
LACKAWANNA	ARCHBALD B	23	0	0	20	0	1764	09
LACKAWANNA	ARCHBALD B	5	55	1500	20	0	1764	10
LACKAWANNA	ARCHBALD B	5	0	0	20	1200000	1764	11
LACKAWANNA	ARCHBALD B	5	50	2200	20	0	1764	12
LACKAWANNA	ARCHBALD B	14	50	2200	20	0	1764	13
LACKAWANNA	ARCHBALD B	6	50	7300	20	0	1524	04
LACKAWANNA	ARCHBALD B	1	75	1000	20	0	1524	03
LACKAWANNA	ARCHBALD B	5	35	0	22	0	1524	01
LACKAWANNA	ARCHBALD B	1	65	0	20	0	1764	07
LACKAWANNA	ARCHBALD B	19	50	6600	20	0	1764	14
LACKAWANNA	ARCHBALD B	47	50	0	20	0	1764	03
LACKAWANNA	ARCHBALD B	2	120	400	20	0	1764	16
LACKAWANNA	ARCHBALD B	3	38	900	20	232335	3755	08
LACKAWANNA	ARCHBALD B	13	20	0	20	0	3754	13
LACKAWANNA	ARCHBALD B	33	25	0	20	0	3754	14
LACKAWANNA	ARCHBALD B	18	0	0	20	0	3754	15
LACKAWANNA	ARCHBALD B	25	25	0	41	0	3754	16

County Name	Municipal Name	Acres	Height	Length	Problem Code	Project Cost	Problem #	Feature #
LACKAWANNA	ARCHBALD B	24	0	0	20	0	1523	06
LACKAWANNA	ARCHBALD B	3	20	0	20	0	3754	10
LACKAWANNA	ARCHBALD B	0.7	40	200	20	0	1523	15
LACKAWANNA	ARCHBALD B	0.5	40	200	20	0	1523	14
LACKAWANNA	ARCHBALD B	1	40	430	20	0	1523	16
LACKAWANNA	ARCHBALD B	47	45	0	20	0	3755	09
LACKAWANNA	ARCHBALD B	6	20	900	20	0	3754	09
LACKAWANNA	ARCHBALD B	4	45	600	20	0	3755	16
LACKAWANNA	ARCHBALD B	2	35	0	20	0	3754	10
LACKAWANNA	ARCHBALD B	1	20	250	20	0	3755	16
LACKAWANNA	ARCHBALD B	2	40	350	20	0	3755	14
LACKAWANNA	ARCHBALD B	1	15	150	20	0	3755	13
LACKAWANNA	ARCHBALD B	3	25	650	20	0	3755	12
LACKAWANNA	ARCHBALD B	2	15	300	20	0	3755	11
LACKAWANNA	ARCHBALD B	1	0	0	20	0	1764	08
LACKAWANNA	ARCHBALD B	20	45	0	20	0	3755	10
LACKAWANNA	ARCHBALD B	2	33	250	20	0	3755	17
LACKAWANNA	ARCHBALD B	12	30	0	22	0	1357	16
LACKAWANNA	ARCHBALD B	60	15	0	22		2080	08
LACKAWANNA	ARCHBALD B	7	25	1200	20		2080	09
LACKAWANNA	ARCHBALD B	1	30	0	41	0	2081	02

County Name	Municipal Name	Acres	Height	Length	Problem Code	Project Cost	Problem #	Feature #
LACKAWANNA	ARCHBALD B	1	0	0	22	0	1357	18
LACKAWANNA	ARCHBALD B	1	0	0	20	0	1357	19
LACKAWANNA	BLAKELY B	108	0	0	22	0	1753	02
LACKAWANNA	BLAKELY B	4	0	0	20	0	1753	05
LACKAWANNA	BLAKELY B	4	0	0	12	0	1753	06
LACKAWANNA	BLAKELY B	6	0	0	12	0	1753	09
LACKAWANNA	BLAKELY B	48	35	0	41	0	1754	02
LACKAWANNA	BLAKELY B	6	50	0	41	71000	1516	02
LACKAWANNA	BLAKELY B	15	0	0	53	0	1753	01
LACKAWANNA	CARBONDALE C	4	0	0	53	0	1759	04
LACKAWANNA	CARBONDALE C	3	50	600	20	0	2088	09
LACKAWANNA	CARBONDALE C	2.3	50	1200	20	0	2087	09
LACKAWANNA	CARBONDALE C	2.4	80	1000	20	0	2087	10
LACKAWANNA	CARBONDALE C	7	30	0	41	704945	4296	04
LACKAWANNA	CARBONDALE C	0.9	45	700	20	0	2087	15
LACKAWANNA	CARBONDALE C	2.3	100	1300	20	0	2087	16
LACKAWANNA	CARBONDALE C	10	140	2500	20	2450000	2088	05
LACKAWANNA	CARBONDALE C	7	30	0	22	0	1759	07
LACKAWANNA	CARBONDALE C	3	45	600	20	0	2088	08
LACKAWANNA	CARBONDALE C	8	65	1900	20	303750	2074	07
LACKAWANNA	CARBONDALE C	1	50	450	21	0	2088	10

County Name	Municipal Name	Acres	Height	Length	Problem Code	Project Cost	Problem #	Feature #
LACKAWANNA	CARBONDALE C	60	45	0	22	0	2088	11
LACKAWANNA	CARBONDALE C	3	45	600	20	80000	1519	14
LACKAWANNA	CARBONDALE C	2	35	400	20	0	1519	02
LACKAWANNA	CARBONDALE C	12	25	0	20	0	1519	01
LACKAWANNA	CARBONDALE C	1	25	0	20	0	3109	12
LACKAWANNA	CARBONDALE C	1	0	0	50	70000000	0402	01
LACKAWANNA	CARBONDALE C	3	35	780	20	287000	2088	07
LACKAWANNA	CARBONDALE C	4	0	0	53	0	1759	01
LACKAWANNA	CARBONDALE C	2	25	250	20	0	1759	13
LACKAWANNA	CARBONDALE C	8	35	200	20	0	1759	12
LACKAWANNA	CARBONDALE C	4	40	850	20	0	1759	10
LACKAWANNA	CARBONDALE C	3	40	700	20	0	1759	09
LACKAWANNA	CARBONDALE C	2	15	0	22	0	1759	08
LACKAWANNA	CARBONDALE C	5	15	0	22	0	1759	05
LACKAWANNA	CARBONDALE C	32	20	0	20	0	2087	08
LACKAWANNA	CARBONDALE C	4	0	0	53	0	1759	02
LACKAWANNA	CARBONDALE C	15	70	0	20	0	2087	07
LACKAWANNA	CARBONDALE C	3	35	500	20	0	1907	06
LACKAWANNA	CARBONDALE C	1	30	350	20	0	1907	08
LACKAWANNA	CARBONDALE C	6	45	0	22	0	3756	02
LACKAWANNA	CARBONDALE C	1	35	100	20	0	1662	11

County Name	Municipal Name	Acres	Height	Length	Problem Code	Project Cost	Problem #	Feature #
LACKAWANNA	CARBONDALE C	1	10	0	64	48000	1908	02
LACKAWANNA	CARBONDALE C	3	45	0	22	0	1908	04
LACKAWANNA	CARBONDALE C	3	35	400	20	0	1759	14
LACKAWANNA	CARBONDALE C	5	0	0	53	0	1759	03
LACKAWANNA	CARBONDALE T	10	0	0	22	0	1907	06
LACKAWANNA	CARBONDALE T	3	40	500	20	0	1907	11
LACKAWANNA	CARBONDALE T	12	55	1200	22	0	2066	12
LACKAWANNA	CARBONDALE T	18	3	0	64	900000	1520	01
LACKAWANNA	CARBONDALE T	6	3	0	64	0	1520	02
LACKAWANNA	CARBONDALE T	3	60	700	21	0	1520	03
LACKAWANNA	CARBONDALE T	4	25	1000	20	0	1520	07
LACKAWANNA	CARBONDALE T	6	15	0	20	0	1520	08
LACKAWANNA	CARBONDALE T	2	15	0	22	0	1908	06
LACKAWANNA	CARBONDALE T	4	15	0	22	0	1908	05
LACKAWANNA	CARBONDALE T	5	0	0	22	0	3751	11
LACKAWANNA	CARBONDALE T	46	15	0	12	181000	1908	01
LACKAWANNA	CARBONDALE T	2	15	0	22	0	3751	10
LACKAWANNA	CARBONDALE T	17	0	0	22	0	1907	10
LACKAWANNA	CARBONDALE T	10	0	0	22	0	1907	09
LACKAWANNA	CARBONDALE T	6	0	0	53	0	3751	01
LACKAWANNA	CARBONDALE T	5	35	1000	20	0	3751	03

County Name	Municipal Name	Acres	Height	Length	Problem Code	Project Cost	Problem #	Feature #
LACKAWANNA	CARBONDALE T	4	30	1200	20	0	3751	04
LACKAWANNA	CARBONDALE T	4	50	1300	20	0	1907	07
LACKAWANNA	CARBONDALE T	4	25	200	20	0	3751	06
LACKAWANNA	CARBONDALE T	4	25	0	22	0	3751	08
LACKAWANNA	CARBONDALE T	3	10	800	20	0	1620	11
LACKAWANNA	CARBONDALE T	4	35	0	20	0	1908	03
LACKAWANNA	CARBONDALE T	3	35	250	20	0	3756	01
LACKAWANNA	CARBONDALE T	4	45	700	20	2600000	1762	02
LACKAWANNA	CARBONDALE T	22	40	1400	53	0	1762	01
LACKAWANNA	CARBONDALE T	24	30	0	22	0	1662	14
LACKAWANNA	CARBONDALE T	3	15	0	22	0	1662	13
LACKAWANNA	CARBONDALE T	4	60	0	22	0	1662	12
LACKAWANNA	CARBONDALE T	2	45	650	20	0	1662	10
LACKAWANNA	CARBONDALE T	1	25	200	20	0	1662	09
LACKAWANNA	CARBONDALE T	2	50	500	20	0	1662	08
LACKAWANNA	CARBONDALE T	3	50	500	20	0	1662	07
LACKAWANNA	CARBONDALE T	1	50	200	20	0	1662	06
LACKAWANNA	CARBONDALE T	2	50	250	20	0	1662	05
LACKAWANNA	CARBONDALE T	3	38	625	20	0	1762	03
LACKAWANNA	CARBONDALE T	2	23	300	20	0	1662	03
LACKAWANNA	CARBONDALE T	5	25	0	22	0	1662	02

County Name	Municipal Name	Acres	Height	Length	Problem Code	Project Cost	Problem #	Feature #
LACKAWANNA	CARBONDALE T	2	23	325	20	0	1662	01
LACKAWANNA	CARBONDALE T	3	25	600	20	0	1520	09
LACKAWANNA	CARBONDALE T	7	60	1400	20	0	4299	01
LACKAWANNA	CARBONDALE T	3	60	600	20	0	4299	02
LACKAWANNA	CARBONDALE T	9	60	0	22	0	4299	03
LACKAWANNA	CARBONDALE T	3	40	0	22	0	4299	04
LACKAWANNA	CARBONDALE T	4	45	1000	20	230000	4299	05
LACKAWANNA	CARBONDALE T	2	60	300	21	0	4299	06
LACKAWANNA	CARBONDALE T	6	90	0	22	0	4299	07
LACKAWANNA	CARBONDALE T	1	20	200	20	0	4299	08
LACKAWANNA	CARBONDALE T	1	40	200	20	0	4299	09
LACKAWANNA	CARBONDALE T	3	30	0	22	0	4299	10
LACKAWANNA	CARBONDALE T	2	50	300	20	610000	1662	04
LACKAWANNA	CARBONDALE T	4	30	0	22	0	1762	07
LACKAWANNA	CARBONDALE T	2	25	275	20	0	1762	04
LACKAWANNA	CARBONDALE T	5	50	1000	20	0	1520	10
LACKAWANNA	CARBONDALE T	4	60	500	20	90000	1520	14
LACKAWANNA	CARBONDALE T	4	48	700	20	0	1357	15
LACKAWANNA	CARBONDALE T	5	50	900	20	0	1357	14
LACKAWANNA	CARBONDALE T	1	40	275	20	0	1357	13
LACKAWANNA	CARBONDALE T	1	40	300	20	0	1357	12

County Name	Municipal Name	Acres	Height	Length	Problem Code	Project Cost	Problem #	Feature #
LACKAWANNA	CARBONDALE T	1	55	900	20	0	1762	10
LACKAWANNA	CARBONDALE T	4	23	0	22	0	1762	08
LACKAWANNA	CARBONDALE T	6	55	3000	20	0	1762	06
LACKAWANNA	CARBONDALE T	1	30	220	20	0	1907	04
LACKAWANNA	CARBONDALE T	12	120	0	22	13900000	1357	02
LACKAWANNA	CARBONDALE T	59	30	0	22	0	1357	03
LACKAWANNA	CARBONDALE T	1	25	200	20	210000	1357	08
LACKAWANNA	CARBONDALE T	10	35	0	22	0	1762	09
LACKAWANNA	CARBONDALE T	53	0	0	51	4748810	3756	06
LACKAWANNA	CARBONDALE T	5	40	500	20	0	1762	05
LACKAWANNA	CARBONDALE T	1	30	75	20	0	1907	03
LACKAWANNA	CARBONDALE T	3	35	325	20	0	1907	02
LACKAWANNA	CARBONDALE T	2	35	300	20	90000	1907	01
LACKAWANNA	DICKSON CITY B	8	0	0	53	0	3739	06
LACKAWANNA	DICKSON CITY B	1	0	60	21	0	3739	03
LACKAWANNA	DICKSON CITY B	0.5	0	0	21	0	1792	02
LACKAWANNA	DICKSON CITY B	20	20	0	22	0	3739	04
LACKAWANNA	DICKSON CITY B	30	0	0	53	0	3739	05
LACKAWANNA	DICKSON CITY B	12	0	0	08	0	1792	01
LACKAWANNA	DICKSON CITY B	10	30	2000	20	150000	3739	01
[redacted]	[redacted]	3	0	0	08	0	2200	01

County Name	Municipal Name	Acres	Height	Length	Problem Code	Project Cost	Problem #	Feature #
[redacted]	[redacted]	39	0	0	41	0	1782	03
[redacted]	[redacted]	8	30	1500	20	0	2327	06
[redacted]	[redacted]	2	0	0	08	0	1680	01
[redacted]	[redacted]	1	0	0	08	50000	1684	03
[redacted]	[redacted]	15	0	0	53	0	1752	01
[redacted]	[redacted]	20	20	0	22	0	1752	03
[redacted]	[redacted]	30	0	0	08	50000	1789	01
[redacted]	[redacted]	3	0	0	08	0	2043	03
[redacted]	[redacted]	22	5	0	22	0	1752	04
[redacted]	[redacted]	1	45	400	20	90000	2327	04
[redacted]	[redacted]	30	0	0	41	0	1752	07
[redacted]	[redacted]	2	20	300	20	0	2327	05
LACKAWANNA	FELL T	2	30	300	20	0	1506	13
LACKAWANNA	FELL T	3	20	0	22	0	1506	12
LACKAWANNA	FELL T	1	35	200	20	0	1506	11
LACKAWANNA	FELL T	2	25	200	20	0	1506	10
LACKAWANNA	FELL T	2	25	200	20	0	1506	09
LACKAWANNA	FELL T	5	40	1100	20	0	2094	08
LACKAWANNA	FELL T	3	40	500	20	0	2094	07
LACKAWANNA	FELL T	2	40	450	20	0	2094	06
LACKAWANNA	FELL T	5	30	0	22	0	2094	05

County Name	Municipal Name	Acres	Height	Length	Problem Code	Project Cost	Problem #	Feature #
LACKAWANNA	FELL T	9	20	0	22	0	2094	04
LACKAWANNA	FELL T	0.5	8	0	08	0	1506	15
LACKAWANNA	FELL T	5	50	500	20	0	1583	08
LACKAWANNA	FELL T	5	15	0	22	0	1583	11
LACKAWANNA	FELL T	3	15	900	20	0	1583	10
LACKAWANNA	FELL T	3	35	575	21	0	2085	03
LACKAWANNA	FELL T	6	30	1200	20	0	2085	04
LACKAWANNA	FELL T	2	30	0	41	0	2085	05
LACKAWANNA	FELL T	14	20	0	22	0	1583	13
LACKAWANNA	FELL T	3	20	0	22	0	1583	14
LACKAWANNA	FELL T	11	0	0	53	0	1583	15
LACKAWANNA	FELL T	7	35	700	20	225000	2094	03
LACKAWANNA	FELL T	12	27	2400	20	0	1583	09
LACKAWANNA	FELL T	35	0	0	53	0	1771	01
LACKAWANNA	FELL T	3	25	600	20	0	1583	07
LACKAWANNA	FELL T	2	40	400	20	0	1583	06
LACKAWANNA	FELL T	6	50	400	20	0	1583	05
LACKAWANNA	FELL T	4	55	600	20	0	1583	04
LACKAWANNA	FELL T	8	25	800	20	0	1583	03
LACKAWANNA	FELL T	2	15	300	21	0	1583	02
LACKAWANNA	FELL T	106	100	600	20	530000	1583	01

County Name	Municipal Name	Acres	Height	Length	Problem Code	Project Cost	Problem #	Feature #
LACKAWANNA	FELL T	2	15	0	22	0	1583	12
LACKAWANNA	FELL T	1	30	200	20	0	3109	08
LACKAWANNA	FELL T	1	30	150	20	0	4282	11
LACKAWANNA	FELL T	3	25	500	21	0	4277	06
LACKAWANNA	FELL T	9	75	1500	21	0	4277	07
LACKAWANNA	FELL T	9	30	0	22	0	4277	08
LACKAWANNA	FELL T	8	40	0	22	0	4277	09
LACKAWANNA	FELL T	1	30	200	21	0	4278	01
LACKAWANNA	FELL T	1	30	200	21	0	4278	02
LACKAWANNA	FELL T	3	10	0	22	0	4278	03
LACKAWANNA	FELL T	2	50	300	20	0	4278	04
LACKAWANNA	FELL T	4	40	0	22	0	4278	05
LACKAWANNA	FELL T	2	30	0	20	0	4291	05
LACKAWANNA	FELL T	4	55	600	20	80000	0416	08
LACKAWANNA	FELL T	2	40	200	20	0	4277	03
LACKAWANNA	FELL T	2	15	0	22	0	4282	12
LACKAWANNA	FELL T	11	10	0	22	0	4282	13
LACKAWANNA	FELL T	2	25	0	22	0	0416	06
LACKAWANNA	FELL T	4	40	900	21	0	0416	05
LACKAWANNA	FELL T	3	25	0	22	0	0416	04
LACKAWANNA	FELL T	5	35	375	21	0	0416	03

County Name	Municipal Name	Acres	Height	Length	Problem Code	Project Cost	Problem #	Feature #
LACKAWANNA	FELL T	3	30	200	21	0	4291	01
LACKAWANNA	FELL T	2	25	300	20	0	4291	02
LACKAWANNA	FELL T	2	40	300	20	0	4291	03
LACKAWANNA	FELL T	9	15	0	22	0	3757	05
LACKAWANNA	FELL T	4	40	0	22	0	0416	09
LACKAWANNA	FELL T	6	70	0	22	0	1501	08
LACKAWANNA	FELL T	10	45	600	20	0	3757	06
LACKAWANNA	FELL T	4	60	800	20	0	3757	07
LACKAWANNA	FELL T	24	25	0	22	0	3757	08
LACKAWANNA	FELL T	16	15	0	22	0	3109	01
LACKAWANNA	FELL T	2	30	400	20	0	3757	10
LACKAWANNA	FELL T	12	75	0	22	0	3109	04
LACKAWANNA	FELL T	2	25	450	20	0	3757	11
LACKAWANNA	FELL T	3	45	600	20	0	3757	12
LACKAWANNA	FELL T	5	40	1200	21	0	3757	13
LACKAWANNA	FELL T	3	40	0	22	0	1508	06
LACKAWANNA	FELL T	2	30	400	21	0	4277	05
LACKAWANNA	FELL T	8	35	0	22	0	1508	04
LACKAWANNA	FELL T	3	30	700	20	0	4277	04
LACKAWANNA	FELL T	3	50	0	22	0	1501	07
LACKAWANNA	FELL T	11	75	0	22	0	1501	08

County Name	Municipal Name	Acres	Height	Length	Problem Code	Project Cost	Problem #	Feature #
LACKAWANNA	FELL T	1	25	125	20	0	1501	05
LACKAWANNA	FELL T	6	40	1100	20	0	1501	04
LACKAWANNA	FELL T	1	30	200	20	0	1501	03
LACKAWANNA	FELL T	4	50	900	20	0	1501	02
LACKAWANNA	FELL T	5	50	1000	20	250000	1501	01
LACKAWANNA	FELL T	2	20	500	20	0	4277	01
LACKAWANNA	FELL T	3	20	0	22	0	4277	02
LACKAWANNA	FELL T	4	50	0	20	0	4291	06
LACKAWANNA	FELL T	1	30	200	20	0	1505	05
LACKAWANNA	FELL T	2	40	0	20	0	0415	09
LACKAWANNA	FELL T	5	55	700	20	0	4294	09
LACKAWANNA	FELL T	1	30	200	20	0	4294	10
LACKAWANNA	FELL T	1	30	200	20	0	4294	11
LACKAWANNA	FELL T	3	40	0	22	0	4294	12
LACKAWANNA	FELL T	2	20	400	20	0	4294	13
LACKAWANNA	FELL T	3	50	500	20	0	4295	01
LACKAWANNA	FELL T	3	40	400	20	0	4295	02
LACKAWANNA	FELL T	4	60	0	22	0	4295	03
LACKAWANNA	FELL T	3	65	900	21	0	0416	02
LACKAWANNA	FELL T	2	15	0	22	0	4291	04
LACKAWANNA	FELL T	4	40	400	20	0	0416	01

County Name	Municipal Name	Acres	Height	Length	Problem Code	Project Cost	Problem #	Feature #
LACKAWANNA	FELL T	4	40	1000	20	0	4294	06
LACKAWANNA	FELL T	6	50	0	20	0	0415	08
LACKAWANNA	FELL T	5	60	900	20	350000	0415	07
LACKAWANNA	FELL T	2	35	350	20	60000	4297	02
LACKAWANNA	FELL T	2	40	400	20	0	4297	03
LACKAWANNA	FELL T	1	25	100	20	0	4297	04
LACKAWANNA	FELL T	3	20	500	20	0	4297	05
LACKAWANNA	FELL T	3	30	400	20	0	4297	06
LACKAWANNA	FELL T	2	20	400	21	0	4297	07
LACKAWANNA	FELL T	4	20	1000	20	100000	0415	08
LACKAWANNA	FELL T	19	0	0	53	0	4298	01
LACKAWANNA	FELL T	1	20	200	20	0	4295	05
LACKAWANNA	FELL T	4	55	900	20	0	4292	13
LACKAWANNA	FELL T	1	30	0	22	0	4291	07
LACKAWANNA	FELL T	4	30	0	22	0	4291	08
LACKAWANNA	FELL T	2	25	0	41	0	4291	09
LACKAWANNA	FELL T	3	35	125	20	0	4292	03
LACKAWANNA	FELL T	7	55	1800	20	0	4292	04
LACKAWANNA	FELL T	12	50	700	20	326750	4292	05
LACKAWANNA	FELL T	5	30	0	20	0	4292	06
LACKAWANNA	FELL T	16	100	0	20	0	4292	07

County Name	Municipal Name	Acres	Height	Length	Problem Code	Project Cost	Problem #	Feature #
LACKAWANNA	FELL T	5	80	0	20	0	4292	08
LACKAWANNA	FELL T	5	100	0	20	0	4292	09
LACKAWANNA	FELL T	3	40	0	22	0	4294	08
LACKAWANNA	FELL T	3	60	600	20	0	4292	12
LACKAWANNA	FELL T	3	60	500	20	80000	4294	07
LACKAWANNA	FELL T	11	90	1400	20	0	4293	01
LACKAWANNA	FELL T	12	75	0	22	0	4293	02
LACKAWANNA	FELL T	5	60	0	22	0	4293	03
LACKAWANNA	FELL T	5	70	0	22	0	4293	04
LACKAWANNA	FELL T	1	30	0	22	0	4294	01
LACKAWANNA	FELL T	1	50	0	22	0	4294	02
LACKAWANNA	FELL T	4	50	0	22	0	4294	03
LACKAWANNA	FELL T	3	30	600	20	0	4294	04
LACKAWANNA	FELL T	5	65	0	22	0	4294	05
LACKAWANNA	FELL T	5	40	900	20	0	3757	09
LACKAWANNA	FELL T	6	15	0	20	0	4292	10
LACKAWANNA	FELL T	3	25	400	20	0	3757	02
LACKAWANNA	FELL T	13	65	2200	20	0	3757	04
LACKAWANNA	FELL T	5	50	0	22	0	3109	09
LACKAWANNA	FELL T	4	50	750	20	0	3109	08
LACKAWANNA	FELL T	2	10	400	20	0	1505	05

County Name	Municipal Name	Acres	Height	Length	Problem Code	Project Cost	Problem #	Feature #
LACKAWANNA	FELL T	1	15	0	21	0	3757	03
LACKAWANNA	FELL T	2	40	400	20	0	3757	01
LACKAWANNA	FELL T	2	30	300	20	150000	3109	07
LACKAWANNA	FELL T	9	60	0	22	0	3109	05
LACKAWANNA	FELL T	10	30	0	22	0	3109	03
LACKAWANNA	FELL T	3	45	700	20	0	1506	07
LACKAWANNA	JERMYN B	25	0	0	51	1250000	2073	02
LACKAWANNA	JERMYN B	1	12	100	20	730500	1760	10
LACKAWANNA	JERMYN B	20	0	0	53	0	1518	03
LACKAWANNA	JERMYN B	1	35	250	20	0	1760	12
LACKAWANNA	JERMYN B	1	25	100	20	0	1760	11
LACKAWANNA	JERMYN B	1	30	100	20	0	1760	13
LACKAWANNA	JERMYN B	1	50	275	20	0	1760	14
LACKAWANNA	JESSUP B	1	30	500	20	0	1524	06
LACKAWANNA	JESSUP B	12	15	0	22	0	1524	05
LACKAWANNA	JESSUP B	20	35	300	20	0	3743	01
LACKAWANNA	JESSUP B	7	35	300	20	0	3743	02
LACKAWANNA	JESSUP B	8	25	1600	20	0	1748	03
LACKAWANNA	JESSUP B	28	35	2500	20	0	3743	04
LACKAWANNA	JESSUP B	4	15	400	20	0	3743	03
LACKAWANNA	JESSUP B	14	20	0	22	0	1524	09

County Name	Municipal Name	Acres	Height	Length	Problem Code	Project Cost	Problem #	Feature #
LACKAWANNA	JESSUP B	1	20	1000	20	0	1524	10
LACKAWANNA	JESSUP B	1	20	400	20	0	1524	11
LACKAWANNA	JESSUP B	1	20	300	20	0	1524	12
LACKAWANNA	JESSUP B	8	40	0	22	0	1524	13
LACKAWANNA	JESSUP B	10	10	0	22	0	3743	05
LACKAWANNA	JESSUP B	4	20	0	22	0	1748	04
LACKAWANNA	MAYFIELD B	46	33	0	22	0	1762	13
LACKAWANNA	MAYFIELD B	35	0	0	53	0	1760	01
LACKAWANNA	MAYFIELD B	12.5	0	0	51	625000	2072	02
LACKAWANNA	MAYFIELD B	2	30	375	20	0	1762	12
LACKAWANNA	MAYFIELD B	20	50	3500	20	0	1762	11
LACKAWANNA	MAYFIELD B	2	50	250	20	60000	3751	05
LACKAWANNA	MAYFIELD B	5	0	0	53	0	1759	05
LACKAWANNA	MAYFIELD B	27	40	600	20	0	3761	07
LACKAWANNA	MAYFIELD B	8	20	0	22	0	3751	09
LACKAWANNA	MAYFIELD B	5	20	0	22	0	1760	02
LACKAWANNA	MAYFIELD B	4	20	400	20	0	1760	03
LACKAWANNA	MAYFIELD B	9	0	0	53	0	3751	02
[redacted]	[redacted]	1	0	0	08	50000	2189	02
[redacted]	[redacted]	2	50	300	20	0	3735	05
[redacted]	[redacted]	14	100	1400	20	867181	3735	04

County Name	Municipal Name	Acres	Height	Length	Problem Code	Project Cost	Problem #	Feature #
[redacted]	[redacted]	8	15	1000	22	0	3733	02
[redacted]	[redacted]	3	0	700	21	6000	0251	01
[redacted]	[redacted]	35	25	5500	20	0	3729	01
[redacted]	[redacted]	12	25	1600	20	0	3729	02
[redacted]	[redacted]	1	0	0	08	0	2189	01
[redacted]	[redacted]	2	30	200	20	40000	3733	01
[redacted]	[redacted]	1	5	0	22	0	2193	05
[redacted]	[redacted]	1	30	400	20	0	2193	04
[redacted]	[redacted]	80	40	0	20	0	3735	06
[redacted]	[redacted]	33	10	0	41	0	2191	05
[redacted]	[redacted]	11	35	0	41	0	2191	09
[redacted]	[redacted]	24	10	0	41	150000	2191	04
[redacted]	[redacted]	3	0	0	12	0	2196	05
[redacted]	[redacted]	22	45	0	22	0	3737	04
[redacted]	[redacted]	47	120	0	22	0	2196	03
[redacted]	[redacted]	124	15	0	22	0	3737	05
[redacted]	[redacted]	4	35	600	20	0	3737	03
[redacted]	[redacted]	7	60	800	20	0	3737	02
[redacted]	[redacted]	11	25	500	20	0	3737	01
[redacted]	[redacted]	61	0	0	08	3100000	1660	01
[redacted]	[redacted]	2	0	0	06	0	1652	03

County Name	Municipal Name	Acres	Height	Length	Problem Code	Project Cost	Problem #	Feature #
LACKAWANNA	OLYPHANT B	1	0	0	20	0	3742	07
LACKAWANNA	OLYPHANT B	65	0	0	41	122500	3742	01
LACKAWANNA	OLYPHANT B	1	0	0	41	0	3742	08
LACKAWANNA	OLYPHANT B	33	0	0	22	0	0328	02
LACKAWANNA	OLYPHANT B	8	20	1500	20	0	3750	04
LACKAWANNA	OLYPHANT B	11	25	0	22	0	3750	16
LACKAWANNA	OLYPHANT B	28	5	0	22	0	3750	14
LACKAWANNA	OLYPHANT B	5	10	0	22	0	3750	13
LACKAWANNA	OLYPHANT B	2	42	300	20	0	3742	04
LACKAWANNA	OLYPHANT B	12	15	0	22	0	3750	12
LACKAWANNA	OLYPHANT B	19	15	0	22	0	3750	11
LACKAWANNA	OLYPHANT B	1	30	500	20	0	3750	07
LACKAWANNA	OLYPHANT B	3	30	700	20	0	3750	06
LACKAWANNA	OLYPHANT B	4	30	700	20	0	3750	05
LACKAWANNA	OLYPHANT B	6	30	1800	20	0	3750	03
LACKAWANNA	OLYPHANT B	2	0	400	21	0	3750	02
LACKAWANNA	OLYPHANT B	1	35	1300	20	304662	3750	01
LACKAWANNA	OLYPHANT B	9	30	2000	20	220000	2076	03
LACKAWANNA	OLYPHANT B	2	0	0	50	125000	2076	15
LACKAWANNA	OLYPHANT B	12	0	0	53	0	2080	04
LACKAWANNA	OLYPHANT B	50	0	0	81	0	2076	19

County Name	Municipal Name	Acres	Height	Length	Problem Code	Project Cost	Problem #	Feature #
[redacted]	OLYPHANT B	12	0	0	53		2080	03
[redacted]	OLYPHANT B	7	5	0	22	0	2080	07
[redacted]	OLYPHANT B	1	0	0	21		2080	05
[redacted]	OLYPHANT B	35	0	0	81	0	2078	18
[redacted]	[redacted]	5	0	0	53	0	1778	01
[redacted]	[redacted]	10	140	1100	20	0	2196	01
[redacted]	[redacted]	3	100	500	20	0	2196	02
[redacted]	[redacted]	30	0	0	20	0	2196	04
[redacted]	[redacted]	2	20	0	22	0	3243	02
[redacted]	[redacted]	1	35	25	20	0	3243	01
[redacted]	[redacted]	10	20	0	22	0	1797	08
[redacted]	[redacted]	17	0	0	08	0	1785	01
[redacted]	[redacted]	2	25	800	20	0	1797	05
[redacted]	[redacted]	5	40	500	20	0	1797	06
[redacted]	[redacted]	36	0	0	08	0	1798	01
[redacted]	[redacted]	2	25	800	20	160000	1797	04
[redacted]	[redacted]	2	20	600	20	0	1797	07
[redacted]	[redacted]	57	0	0	08	200000	2183	01
[redacted]	[redacted]	50	0	0	08	0	1788	01
[redacted]	[redacted]	20	0	0	08	0	1787	01
[redacted]	[redacted]	35	25	0	22	0	1802	03

County Name	Municipal Name	Acres	Height	Length	Problem Code	Project Cost	Problem #	Feature #
[redacted]	[redacted]	26	30	0	22	0	2202	05
[redacted]	[redacted]	12	60	0	40	410000	2179	01
[redacted]	[redacted]	5	10	0	22	0	2202	06
[redacted]	[redacted]	32	0	0	08	0	1779	01
[redacted]	[redacted]	13	0	0	08	0	2040	01
[redacted]	[redacted]	33	20	0	41	0	1779	04
[redacted]	[redacted]	65	0	0	08	0	1779	03
[redacted]	[redacted]	12	0	0	53	0	1779	02
[redacted]	[redacted]	1	0	0	08	100000	2178	01
[redacted]	[redacted]	15	30	0	22	0	3744	01
[redacted]	[redacted]	24	30	6000	20	0	2327	01
[redacted]	[redacted]	7	0	0	31	24000	2070	04
[redacted]	[redacted]	20	0	0	53	0	2070	03
[redacted]	[redacted]	1	0	0	08	0	2070	02
[redacted]	[redacted]	1	0	0	08	157427	2070	01
[redacted]	[redacted]	45	20	0	22	0	2327	02
LACKAWANNA	VANDLING B	7	60	1400	20	0	4282	07
LACKAWANNA	VANDLING B	17	35	0	22	0	4282	14
LACKAWANNA	VANDLING B	1	30	200	20	0	4282	10
LACKAWANNA	VANDLING B	2	15	400	20	0	4282	09
LACKAWANNA	VANDLING B	9	60	0	41	0	4275	02

County Name	Municipal Name	Acres	Height	Length	Problem Code	Project Cost	Problem #	Feature #
LACKAWANNA	VANDLING B	7	40	0	20	0	4275	04
LACKAWANNA	VANDLING B	1	50	0	22	0	4275	05
LACKAWANNA	VANDLING B	5	40	900	20	0	4282	08
LACKAWANNA	VANDLING B	4	15	0	22	0	4297	08
LACKAWANNA	VANDLING B	2	30	200	21	0	4282	05
LACKAWANNA	VANDLING B	7	30	0	22	0	4281	02
LACKAWANNA	VANDLING B	7	60	0	22	0	4281	03
LACKAWANNA	VANDLING B	5	70	0	22	0	4281	04
LACKAWANNA	VANDLING B	1	15	100	21	0	4282	01
LACKAWANNA	VANDLING B	1	0	0	07	50000	4275	07
LACKAWANNA	VANDLING B	18	110	0	41	0	1495	01
LACKAWANNA	VANDLING B	2	5	0	08	0	4290	01
LACKAWANNA	VANDLING B	2	30	300	20	0	4295	04
LACKAWANNA	VANDLING B	9	75	0	22	0	4296	06
LACKAWANNA	VANDLING B	7	60	950	21	0	4295	07
LACKAWANNA	VANDLING B	5	25	750	21	0	4282	03
LACKAWANNA	VANDLING B	6	35	600	20	0	4297	01
LACKAWANNA	VANDLING B	4	60	400	20	0	7121	04
LACKAWANNA	VANDLING B	7	70	700	22	0	7121	05
LACKAWANNA	VANDLING B	4	10	500	41	0	7121	06
LACKAWANNA	VANDLING B	6	40	800	22	0	7121	07

County Name	Municipal Name	Acres	Height	Length	Problem Code	Project Cost	Problem #	Feature #
LACKAWANNA	VANDLING B	4	40	0	22	0	4295	08
[redacted]	[redacted]	6	40	0	22	0	4283	02
[redacted]	[redacted]	1	5	0	08	0	4289	01
[redacted]	[redacted]	0.1	15	0	21	0	4273	05
[redacted]	[redacted]	2.5	40	0	20	0	4273	03
[redacted]	[redacted]	2	45	0	41	0	4267	01
[redacted]	[redacted]	6	40	0	41	0	4270	01
[redacted]	[redacted]	1	15	0	41	0	4270	02
[redacted]	[redacted]	2	20	400	20	0	4270	03
[redacted]	[redacted]	2	20	400	20	0	4270	04
[redacted]	[redacted]	3	30	0	41	0	4272	01
[redacted]	[redacted]	8	20	0	41	0	4272	02
[redacted]	[redacted]	12	60	0	22	0	4274	04
[redacted]	[redacted]	11	0	0	41	0	4272	04
[redacted]	[redacted]	3	40	800	21	0	4280	05
[redacted]	[redacted]	0.5	25	0	21	0	4273	04
[redacted]	[redacted]	0.1	15	0	21	0	4273	05
[redacted]	[redacted]	8	30	0	41	0	4274	05
[redacted]	[redacted]	7	40	0	41	0	4274	05
[redacted]	[redacted]	1	5	0	22	0	4274	07
[redacted]	[redacted]	2	30	0	22	0	4280	03

The following explanation will assist you in understanding the structure of the AML Inventory while you review the information:

Each ***problem area*** (PA) consists of various ***abandoned mine land features*** (AMLF) that represent specific AML problem types. Each problem area is identified by a four-digit number and encompasses an area on a USGS quad map delineated by a dashed line defining the PA boundary. The AMLF numbers within a PA are simply a numeric count that identifies each AML problem in the PA. Each AMLF No. is represented on the maps by a particular symbol depicting the specific AML problem type.

The ***problem codes*** in the **Summary** table are 2-digit numbers that correspond to the specific type of abandoned mine land (AML) problems represented by each abandoned mine land feature number (AMLF No.). We are currently in the process of implementing an expanded code system. Eventually all the old codes will be phased out and replaced with a new code. Until that occurs completely both sets of codes will exist in the database. These are defined as follows:

Old Codes:

01 = Abandoned Strip Mine (dry)
02 = Abandoned Strip Mine (flooded)
03 = Open Shaft or Mine Entry
04 = Abandoned Refuse Pile (burning)
05 = Abandoned Refuse or Spoil Pile* (not burning)
06 = Underground Mine Fire
07 = Abandoned Deep Mine**
08 = Subsidence Prone Area (known)
09 = Subsidence Prone Area (suspected)
10 = Abandoned Coal Processing Settling Basin
11 = Abandoned Structure
12 = Erosion-Prone Area (due to AML)
13 = Land Slide Area (due to AML)
14 = Reported AMD Discharge and/or Seep Area

* The type of mining generally indicates whether the problem is spoil or refuse (i.e., surface mining would indicate that pile is likely to be spoil; whereas, deep mining or processing mining type would indicate that the pile is likely to be refuse.

** Problem Code 07 (Deep Mine) is not used in the AML Inventory.

New Codes:

20 = Abandoned Strip Mine (dry)
21 = Abandoned Strip Mine partially or completely flooded
22 = Spoil Pile

30 = Mine Entry, Drift, Tunnel or Country Bank
31 = Vertical Mine Shaft
32 = Mine Slope
33 = Crop Fall or Subsidence Opening
34 = Deep mine intersected by Strip Mine

40 = Abandoned Refuse Pile (burning)
41 = Abandoned Refuse Pile (Not burning)

50 = Underground Mine Fire
51 = Subsidence Prone Area on Developed Land (known)
52 = Subsidence Prone Area on Undeveloped Land (known)
53 = Subsidence Prone Area (Suspected)

60 = Abandoned Structure
61 = Abandoned Structure with potentially hazardous materials
62 = Abandoned Equipment or supplies
63 = Abandoned Equipment or supplies with potentially hazardous materials
64 = Abandoned Coal Processing Settling Basin

70 = Deep Mine Discharge, untreated
71 = Deep Mine Discharge, with Active treatment
72 = Deep Mine Discharge, with Passive treatment
73 = Surface Mine seep or discharge, untreated
74 = Surface Mine seep or discharge, with Active treatment
75 = Surface Mine seep or discharge, with Passive treatment
76 = Refuse pile seep or discharge, untreated
77 = Refuse pile seep or discharge, with Active treatment
78 = Refuse pile seep or discharge, with Passive treatment

80 = AML Impacted Waterway - AMD
81 = AML Impacted Waterway - Sediment
85 = AML Impacted well/water supply

90 = Mine pool/Flooded deep mine
91 = AMD ground saturation (causing flooding Problem)

The CHAIRMAN. I thank you. I have a couple of short questions. Thanks to the panel for your testimony, No. 1. Mr. Campbell, we have a little problem with a lot of our agencies in that some people don't see the forest for the trees. Are you aware of any EPA-implemented regulations for soil, air and water quality that get in the way of bringing more efficient on-the-ground solutions to mine cleanup, and if so, how do we get around those problems?

Mr. CAMPBELL. I am not aware of any particular regulations that stand in the way currently, Mr. Chairman.

The CHAIRMAN. What about the ash—the coal ash, what is it?

Mr. SHERWOOD. Fly ash.

Mr. CAMPBELL. Well, I think the fly ash has not been an obstacle of any specific reclamation project—.

The CHAIRMAN. I understand before your agency though someone is proposing they make it a toxic—classify it as a toxic waste—hazardous waste, and if that occurs, there's very little chance of really reclaiming this land.

Mr. CAMPBELL. I am aware that that is being looked at in the context of a broad variety of uses of ash.

The CHAIRMAN. Who in the world is recommending that?

Mr. CAMPBELL. Well, Mr. Chairman, this issue comes up in a bunch of different contexts including areas where ash has been inappropriately used as fill, and the agency has not proposed to change the current regulatory structure. I think the concerns specifically with respect to abandoned mine reclamation have been very squarely raised to the agency, and we will make sure that those concerns are addressed in a common-sense way before any regulatory proposal or change is made.

The CHAIRMAN. I am not picking on you. I just don't have a whole lot of faith in your director and some of her ideas. I really believe she cannot see the forest for the tress in solving problems. You're not the only agency that does this, because everybody can give you a thousand reasons of why you can't do it, and yet we really still have the problem. So I want to suggest whatever you can do, being from this region—remind them that I am very concerned that no one makes a stupid mistake of logically trying to solve a problem by applying some idea out here that doesn't work. I just wanted to make sure of that.

Secondly, you talked about in 1994 you spent $12 million.

Mr. CAMPBELL. Since 1994, I think.

The CHAIRMAN. That's not a whole lot of money. What's in your budget this year?

Mr. CAMPBELL. This year we are—it's under—we're still in the process of allocating. As you know, there was at the last minute a cut in the overall budget, and we're as an agency in the process of seeing how that cut is being allocated. So I will be able to get back to the committee on the specific allocation for this year. But even if we doubled the resources, Mr. Chairman, as you know, and as the witnesses reflect, the problem here would dwarf our budget even if we doubled the resources, and that's one reason why we've seen it as a priority to get something like Better America Bonds moving forward so that the resources could be made available to local governments, to communities that put together clean water projects that would address problems like these.

The CHAIRMAN. Again, not you personally, I'd just like to see the EPA start directing some of their real efforts toward solving this existing problem that we know is there instead of worrying about the particulate amount of volcanos in my State. I don't have any way yet to put a harness on a volcano. It might be suggested, but I am not—Congress creates a lot of things, but I don't think we can do that. But that is really being considered because it is the one factor that puts the particulate amount in the air that—in human activity—that if, in fact, the EPA's regulations were put in place, that we could not meet air quality. And I keep saying this is a silly idea, and nobody listens to me.

Mr. Dolence, Governor Ridge's proposal, Growing Greener, but the bill that I've introduced here, I believe the Governor supports that, that would bring some money into your program, would it not, about $50 million?

Mr. DOLENCE. This is the OCS?

The CHAIRMAN. Yes, the OCS.

Mr. DOLENCE. I believe the Governor supported that in principle, but there were some questions on the details of it.

The CHAIRMAN. But, as I understand it, I talked to him personally, he does support it. But it would bring about $50 million into that package. Lawsuits, who would sue somebody for trying to clean something up?

Mr. DOLENCE. Third-party lawsuits, sir—the impetus for the Good Samaritan legislation was in western Pennsylvania, an abandoned discharge known as the Langeloth bore hole. It was a high-iron alkaline discharge from a deep mine, and a local group had suggested building a passive treatment system to drop the iron out so it would not discharge into the stream. A local coal company owned the property—well, it was not responsible because the discharge—came from the 1940's, and said, I'll sell you the land for $1, 7 acres of prime land to build a wetland, because the coal company did not want to be liable under its ownership and control regulations of the Federal and State governments.

The local watershed group went—we're worried about the liability as well. A third party could come along and say that is not meeting the effluent standards and then sue the voluntary group in Federal court. And that was a concern with many groups. They could sue in State court as well. So we provided not only for environmental liability for those groups, but also if someone is working there and got hurt, tripped and broke a wrist or an ankle, but it was not due to the negligence of the group, then that person could not sue the group as well. It took some of those legal barriers away from those projects.

The CHAIRMAN. I think it's a great idea, but I hate to see something discourage solving a problem, and this legislation could do it.

Ms. Blanchard, I just want to make one comment. This Committee that I've been chairing for 6 years has always requested more money, about $20 million, and unfortunately I am not an appropriator. If I had my way, we'd eliminate the appropriating committee and the Budget Committee, and they'd let us authorize, who listen to the people, figure out how to do it, but we try to get the money to you because we know how valuable it is in this total package. And we're glad to see you're working with EPA that heads

the States because this whole thing should be a joint effort. It cannot survive on its own, and just not on this problem of coal mines, but any other area you're trying to make a go.

Mr. Sherwood.

Mr. SHERWOOD. Ms. Blanchard, I want to commend the Office of Surface Mining and all the great projects they've had. And as we were in the air today, you could see where these reclamation projects stood out. Here we'd be in the midst of devastated coal ground, and there would be a ridge or a site hill that was planted and looked like it had lots of grass on it, and it was a successful project. But as Laure Carlo stated for Representative Staback, they are such a small percentage. And I think that's something we need to stress today. All this money that's been spent by the Office of Surface Mining, the abandoned coal mine reclamation projects, if you get in the air, as we did today, there are 10 or 20 times more projects that need to be done than have ever been done. In other words, there's a nice little green spot in the middle of all these culm banks and high walls and strip-mine pits, and so the process, again, as Representative Staback's testimony said, is just going to take too long unless we find a new way to go about it.

The question I'd like to ask you, I was very interested that you say OSM has developed with local nonprofit watershed organizations to improve water quality, and I'd like you to give me some examples here in the 10th Congressional District on how they work.

Ms. BLANCHARD. The one that—I am not sure exactly where the boundaries are on—we haven't had any applications from the 10th District. This is something that when a local community organization would approach—a watershed group would approach the Office of Surface Mining, and then we would evaluate their particular projects and be able to see if we're able the give the money. But as of right now, we haven't received any requests from the local watersheds. We would certainly encourage local groups to be able to provide—.

Mr. SHERWOOD. Well, there's been tremendous work done cleaning up the Lackawanna River and great success made, and yet today when we flew up the river by Old Forge, you could see it go from blue to orange and then back to blue again. So it's just that we have those problems that we have to work on.

And, Brad, I've got to get back to the fly ash deal because I don't think we can make that important enough. But we have sent a letter to Secretary Browner, my colleagues and I, asking that that be turned around because we can't understand a ruling by EPA that would disincentivize the mine land reclamation. And one of the things that has worked so well to clean up some of our culm banks is the ruling a few years ago where the power companies had to buy the power. So, you know, they're burning all this culm, producing power, it's working, they're cleaning things up, but then we have to use the fly ash. It has to be land-filled, it has to be used, and to make it more difficult sounds counterproductive to me.

Mr. CAMPBELL. I agree. I've seen the press accounts and some columns on this issue. Again, there isn't even a proposal yet, but let me just offer the assurance that I will personally focus on this

and make sure that any proposal that comes forward does not present the kind of issues you present.

And let me also acknowledge Bernie Sarnopski of the EPA staff, who is not only an expert on this problem, but is a son of this region, and I'll make sure that we have expert advice to make sure it doesn't present any of those obstacles.

The CHAIRMAN. Not to pick on you, Brad, but you know the last of the EPA under a different administration—by the way, it happened to be my administration—they insisted upon putting additives in our gasoline in Alaska, and we fought that tooth and nail, and rightfully so. We find out now that someone's got egg on their face because it creates too many illnesses, and we said that at that time because—I don't know who ever came up with the idea of putting this stuff in the gas. It was supposed to make it cleaner, and instead it added formaldehyde in the air. And we have an aversion there—I don't know if you've ever been to Alaska—that really hurt people, but that's besides the point.

Mr. Kanjorski.

Mr. KANJORSKI. Thank you, Mr. Chairman. Let me get the record straight in a couple of moments.

Ms. Blanchard, I think you may be aware of the fact of the cost per congressional district of reparable land. The 11th Congressional District of Pennsylvania has the highest price tag, as I understand it, of the Office of Surface Mining for cleanup and reclamation; is that correct?

Ms. BLANCHARD. Well, what I stated previously was that for the whole anthracite area, that it would be—1.9 billion is the amount that is in there right now for cleanup in the inventory system.

Mr. KANJORSKI. Right. But as I understand, the study does it in more detail on a congressional district by congressional district. Apparently my district, the 11th, has the highest price tag. Mr. Rahall's district in West Virginia has the second, and Mr. Boucher's district in Virginia has the third highest price tag. Do you have any knowledge of that?

Ms. BLANCHARD. We received your letter requesting some information on this last Wednesday, and we're in the process of checking it out to find out exactly what it is. Certainly, as you pointed out, it's one of the top two or three for sure.

Mr. KANJORSKI. Brad, I am just going to go at you for a second. In terms of the Better America Bonds, you know that I favor those bonds, but unless the administration changes the full faith and credit requirements, unless they change that, they can only be given to local government and municipalities, and unless they provide for the lack of comprehensive planning that's in there now, there's absolutely no vital way for this type of massive cleanup—that those bonds become usable. There's no way that these 460 communities are going to come together and just all decide on one plan. There's no way they're going to place full faith and credit in their communities. I mean, we can't even get that done for hospitals and schools.

And, finally, I think not only from what you're talking about what the EPA can do, what the Office of Surface Mining—the one thing that's lacking here—I think that the Chairman put his hand on in our flyover today, and you may have heard that on the ear-

phones when we were talking back and forth—this can't be done on a project-by-project basis. We're going to end up spending an incredible fortune—I think the numbers, Robert, you gave about 10 million comes to Pennsylvania's anthracite, and after you pay for engineering costs and administration, only 5 million gets into the field.

Mr. DOLENCE. That's the construction costs.

Mr. KANJORSKI. Right.

Mr. DOLENCE. Those are on-the-ground dollars.

Mr. KANJORSKI. That's only 50 percent that gets on the ground. From my study of these projects, it's 25 to 35 percent end up before any work gets done on the ground because you're going from project to project bringing in engineers from all over the world or country that are bidding on this stuff. They're doing individual site operations.

What we're trying to make, Mr. Chairman, evident is that this can't be done a spotty project-to-project basis. It's got to be done comprehensively. We've got to get a cost containment on these engineering costs, design costs and inspection costs, and the real dollars have to flow to the ground.

I guess what I'd like to urge our distinguish panelists—and I happen to agree with my good friend Mr. Staback, I think he's got it right on—but it's a responsibility of not only myself, Mr. Sherwood and Mr. Holden to come up with some ideas as to how we could fund this, but the agencies—you know, I am embarrassed that we all sit here and say, well, the dispute is whether at the present rate it's going to take 260 years or 410 years, and that doesn't make anybody slip under the table and get embarrassed. That means we're closer to the American Revolution than we are to cleanup, and maybe twice as far from cleanup. I don't think that's acceptable.

And more problems are occurring. As the Chairman mentioned, the additives to gasoline, I've been reading about it. Suddenly that'll get a high profile, everybody will run in there, and—I would like to charge my administration, not the Chairman's administration, to work with us in the Congress. If you don't like our anthracite bonds, make the Better America Bonds work, but just don't say Better America Bonds, because I tell you right now they won't work as they're presently constituted, Brad. And I am going to tell you that whatever problem—I think all my colleagues locally that represent Pennsylvania—this is a strange State in terms—we have 2,500 municipalities, 67 counties and a total lack of planning probably in 90 percent of our municipal governments, and I think, Robert, you know that. That's Pennsylvania's problem. So we need somebody comprehensively to—understanding what this concept is, to come with the Federal Government and say, here's how we can help, and here's some ideas on how it can be done; the State government coming in and saying, here's what we can do and how we can help administer and get this done; and then at the local level and the communities themselves and the people. But if we keep talking about how wonderfully we've done for the last 25 years, and we spend $10 million a year, and we're only going to have to do that for the next 400 years, that doesn't give me an awful lot of

satisfaction or even—it doesn't impress me that we've got people really thinking about this.

So I've worked with Cathy Karpan, and I've worked with you, Brad, in your other capacity and look forward to your service now in region three as the administrator. But we really have to come within the next month or 2 or 3 months with a very comprehensive program that everybody can live with, that we believe that we can implement and get done, and then let the Congress and let the Chairman take it on his shoulders and carry it down the field and score that touchdown for us. Thank you.

The CHAIRMAN. Tim.

Mr. HOLDEN. Thank you, Mr. Chairman.

Ms. Blanchard, just one quick question—and you might have said it in your testimony—how much revenue was generated into the trust fund, and then how much was appropriated in the last budget cycle? Something like 390 million generated and only 310 appropriated?

Ms. BLANCHARD. We had 275 million coming in and the 196 million go out.

Mr. HOLDEN. So about 80 million unspent.

The CHAIRMAN. Plus all the interest.

Mr. HOLDEN. Thank you.

And then finally, Brad, I just want to associate myself with remarks made by the Chairman and by Mr. Sherwood dealing with the fly ash. I know the administrator knows clear well where the Pennsylvania delegation stands on this issue, but it really is disheartening when you think of this 100 years of eyesores that we face. And then finally through the Purple legislation we finally find a use and a way to get rid of these culm banks, and then to have this proposal, whether it's real or implied, about being classified as hazardous waste, it really would be a giant step backward. And I know you've been worked over twice already, but I wanted to land a third punch and say that.

Thank you, Mr. Chairman.

The CHAIRMAN. Mr. Sherwood, do you have any other questions?

Mr. SHERWOOD. No.

The CHAIRMAN. Mr. Kanjorski?

Mr. KANJORSKI. I just want to thank the panel that came today because I think we're finally trying to just get to the issue, and I appreciate all of your effort. I don't want to appear as though I am not genuinely pleased with the effort you're making, but we need even a stronger effort.

The CHAIRMAN. Well, I want to thank the panel again. I can say my goal is to try to solve this problem, and frankly my conservation reinvestment act will do part of that. And I tell my good colleagues on the opposite side of the aisle and I tell my colleagues on this side of the aisle, right, wrong or indifferent, when you read the papers, there's $2 trillion now supposedly in surplus which may be predicted, but if we're going to do things, we ought to do things by solving problems and not creating some new, great, grandiose program.

That's one of my objections to President Clinton every day. You read where he's going to spend so many millions of dollars on a new program, and I commend him for having the imagination, but

I also condemn him for not addressing this problem. This money has been collected. We ought to take the money out of the Congress and we ought to spend it and solve the problem, which would create tremendous wealth.

I mean, I am convinced of this. You have the power here, you have the land mass here, you have the work force here, you have a strong work ethic, and if you had the land space, you clean this water up for New Jersey and Maryland and the rest of it and also get this land cleaned up, that's what I would like to see done, and we can do it jointly. I will try to do that. I can't do it all by myself. This is going to take a lot of joint effort. I think that Mr. Kanjorski said a good thing. I want the administration to come down with some good ideas; not a new idea on something else, but something that addresses this problem. With that you're— .

Mr. DOLENCE. Excuse me, Mr. Chairman, may I?

The CHAIRMAN. Yes.

Mr. DOLENCE. I'd like to offer to Brad to share with him our position that this—the Commonwealth of Pennsylvania's position on the ash. And there's an element that is missing in the discussion so far, and that is if the ash is classified as hazardous, it is not only going to be a burden to the cogens, it will put them out of business. We will not have the benefit from the ash. We will not have the culm being cleaned up, and we won't have that green—I consider green electricity coming from those cogens. Those cogens will shut down because they're on a fixed-cost basis. And I wanted to emphasize that.

I think Mr. Kanjorski is right on the mark. A holistic approach, that was the whole impetus behind our Growing Greener initiative, and I can't agree more that we look at the big picture. You don't just look at one project and another one. We're looking at them watershed by watershed.

And as a final note on the market, remining in Pennsylvania in 1998, we received 3,300 acres of reclamation free by the coal industry. Government, the Federal EPA, OSM, Commonwealth of Pennsylvania, we spent $26 million and reclaimed 2,000 acres. We need to maintain a market, especially in anthracite. That is a unique product, and it is hurting. It does not have the market that bituminous has. In anthracite—the surface mining in anthracite is well over 90 percent remining, meaning 90 percent of the time when an operator goes out there and mines, he or she is reclaiming old abandoned sites at no cost to the taxpayer. You want to talk about holistic and being smart on how we spend our dollars, if we put that industry out of business, we lose it. It'll never come back. Thank you.

The CHAIRMAN. I appreciate that. As you know, my stand on the mining has been very strong because those that are mining are doing it right, and I don't think they should pay for the sins of those who created it. I go back to World War II. That's when all this damage really was done, not all of it, but some of it and most of it, and we ought to recognize that.

With that, you're excused. Thank you very much. If you would like to stay with us, you can. If you'd like to leave, that's your prerogative.

We will have the panel III, Andy Skrip, Vice President of the Greater Scranton Chamber of Commerce; David Donlin, President, Economic Development Council of Northeastern Pennsylvania, Executive Director, Schuylkill Chamber of Commerce; and Bernard McGurl, Executive Director of Lackawanna River Corridor Association.

And if you would, Mr. Sherwood, would you take the gavel for me and run this for a moment.

Mr. SHERWOOD. [Presiding.] Certainly.

We are going to hear from Andy Skrip, the Vice President of the Greater Scranton Chamber of Commerce, and no one will be better able to tell us the problems that are associated with economic development in conjunction with the scars of our anthracite heritage. Andy.

STATEMENTS OF ANDY SKRIP, VICE PRESIDENT, SCRANTON CHAMBER OF COMMERCE; DAVID A. DONLIN, PRESIDENT, ECONOMIC DEVELOPMENT COUNCIL OF NORTHEASTERN PENNSYLVANIA, EXECUTIVE DIRECTOR, SCHUYLKILL CHAMBER OF COMMERCE; AND BERNARD McGURL, EXECUTIVE DIRECTOR, LACKAWANNA RIVER CORRIDOR ASSOCIATION

STATEMENT OF ANDY SKRIP

Mr. SKRIP. Good afternoon, Mr. Chairman and Members of the Committee on Resources. My name is Andy Skrip. I am the vice president of the Greater Scranton Chamber of Commerce. I am here today representing the Chamber and the Scranton Lackawanna Industrial Building Company, SLIBCO, the industrial development arm of the Greater Scranton Chamber of Commerce.

Mr. SHERWOOD. If we're not quiet in the back, we can't run the hearing.

Continue.

Mr. SKRIP. I have been associated with the Chamber and SLIBCO for 20 years and have been involved with economic development for 25 years.

On behalf of the Chamber's board of directors and our membership consisting of over 2,600 businesses in the greater Scranton area, I am here to share with the committee members mine land reclamation problems specific to northeastern Pennsylvania.

By way of background, the Scranton Lackawanna Industrial Building Company, SLIBCO, is a not-for-profit community economic development company. Our mission is to create and retain jobs by developing real estate and obtaining financing for businesses.

SLIBCO was created out of necessity when the coal industry bottomed out after World War II and post-war depression had set in on northeastern Pennsylvania. Under the SLIBCO umbrella, public and private sectors began pooling their resources to attract businesses to the greater Scranton area. Since SLIBCO's inception over 55 years ago, SLIBCO has been responsible for the planning, financing and/or construction of over 287 projects, creating over 25,000 new jobs and adding approximately $423 million to the economy.

SLIBCO currently owns six buildings totaling over 1.1 million square feet and leases them to J.C. Penney, Prudential, Fleet Financial Services, Northrop Grumman, General Dynamics and Diversified Information Technologies. We also have developed 10 office, technology and industrial parks in Lackawanna County. SLIBCO is the largest developer of abandoned mine lands in Lackawanna County and has direct experience in the marketing and development of these lands.

As you are aware, the economic development in the United States is fierce. Every state and community throughout the Nation are fighting for new corporate expansions and relocations, new jobs for their communities. The marketing of lands within the mining measures as they currently exist will always place northeastern Pennsylvania at a disadvantage of attracting industry to the area when these sites are compared to other sites without similar problems.

The result of being in this disadvantaged position are loss of jobs for the community and the loss of millions of dollars invested into the state through our payroll, services and operating expenditures. Our experience in Lackawanna County has borne out these observations. The Scranton labor market has been one of persistent and substantial unemployment and underdevelopment for decades.

The industrial sites available in the older industrial areas of Lackawanna County situated over abandoned mines have been available for decades, but have failed to attract new investment. The successes in attracting high technology, office and growth industries have occurred primarily at greenfield sites outside of the mining measures. These include the Northrop Grumman facility in Benton Township, Chrysalis facility in Scott Township, Fleet Financial Services, Cigna, Alliance Capital at the Glenmaura Corporate Center, Prudential and J.C. Penney offices at the Office Park at Montage and Met Life in Abington Executive Park.

The development of attractive business parks within abandoned mine areas has many challenges. The cost, risk, appearance, engineering challenges and time delays are all the barriers that prevent the reuse of these properties for job-producing locations.

Before a company would even consider sites over mined areas, they would have to evaluate the risk. Up-front moneys would have to be spent for subsurface geotechnical reports, testing and drilling. Then ultimately, if chosen to proceed to the next step, the premium cost to design and construct remedial measures such as the removal of above-grade structures, the filling of mine openings and voids, grading and compaction of strip pits are all too often cost-prohibitive. These additional tasks take time and money that the prospective companies are not willing to make, especially if other competing sites don't require the same outlay and time delay.

Another major environmental and liability concern associated with these sites are the stripping pits and deep topographic depressions. These geological features were historically used as community dumping sites. Even today, illegal dumpers use these areas as dump sites for all types of waste.

Land located within the mining measures have poor soil conditions and/or subsurface voids which presents a high risk of subsidence problems or differential settlement.

One of the basic rules of risk management is avoidance. Site selection teams and executives use engineering reports and common sense that ultimately forces them to eliminate abandoned mine lands because of the risk. Coal-scarred land with the existence of culm banks, red ash piles, strip pits and the lack of vegetation are contrary to the clean and sleek corporate image of the 21st century corporate America. These lands not only bear the additional cost and risk, but studies have shown direct links between employee morale and productivity relative to operating in such an unsightly environment.

Another key factor employers consider is the amount of time necessary to get the operation up and running. Time issue all boils down to identifying an area where the company's performance contracts can be executed. This always requires a fast-tracked project. The major component to a fast-track project is the availability of land or buildings that already have all the necessary permits and approvals to start construction. In other words, the site must be ready to go. Unfortunately, prospective companies know the impacts, cost, the risk, time, aesthetics and image of developing over mining measures and automatically eliminate these sites without any consideration.

The failure to develop industrial land sufficiently attractive to induce job-producing investment by growing, technologically competitive industries will result in continued economic stagnation, substandard income, underemployment and the continued out-migration of our young minds, our children.

The existing abandoned mine land program as authorized under Title IV of the Surface Mining Control and Reclamation Act of 1977, SMCRA, has served our region well. Under SMCRA, the Pennsylvania Department of Environmental Protection, the Bureau of Abandoned Mine Reclamation has abated many dangerous conditions such as open mine shafts and dangerous high walls and has regraded many of our blackfields.

Also under SMCRA, the Office of Surface Mining addresses emergency AML problems. While SMCRA has addressed and continues to address many health, safety and environmental problems in northeastern Pennsylvania, there are two reasons why SMCRA funding alone cannot address the reuse of abandoned mine lands for industrial development.

One, under SMCRA, AML reclamation is prioritized with health and safety problems ranking highest, environmental problems ranking next, then followed by economic development. Currently, SMCRA guidelines limit reclamation activities at health, safety and environmental problem sites to regrading and preclude the additional compaction and subsurface stabilization required to prepare a site for industrial reuses.

Two, Pennsylvania has the largest inventory of abandoned mine land problems in the country, and northeastern Pennsylvania has its fair share, or unfair share, of the Commonwealth's problem areas. Given the current AML fund appropriation levels, it will be decades, if not centuries, before AML moneys can be expended to economic development.

In summary, if we are to realize the productive reuses of the thousands of acres of blackfield sites in northeastern Pennsylvania,

we need the financial resources to eliminate these barriers and provide a level playing field for northeast Pennsylvania in our effort to attract corporate expansion and relocation.

Mr. Chairman and committee members, we need to augment SMCRA with special legislation to provide additional grant funding to stabilize, compact and revegetate mine-scarred lands if we truly want to put these degraded and abandoned lands back to productive use.

Thank you for your time, and I will be happy to assist your Committee in the future.

The CHAIRMAN. [Presiding.] Thank you, Andy.

[The prepared statement of Mr. Skrip follows:]

Greater Scranton Chamber of Commerce

U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON RESOURCES

JANUARY 24, 2000

TESTIMONY OF
ANDY SKRIP, VICE-PRESIDENT
GREATER SCRANTON CHAMBER OF COMMERCE
222 MULBERRY STREET
SCRANTON, PA 18501

UNIVERSITY OF SCRANTON
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SCRANTON, PENNSYLVANIA

TESTIMONY OF
ANDY SKRIP, VICE-PRESIDENT
GREATER SCRANTON CHAMBER OF COMMERCE
222 MULBERRY STREET
SCRANTON, PA 18501

TO THE

COMMITTEE ON RESOURCES

Good Morning - Mr. Chairman and members of the Committee on Resources

My name is Andy Skrip. I am the Vice-President for the Greater Scranton Chamber of Commerce . I am here today representing the Chamber and the Scranton Lackawanna Industrial Building Company (SLIBCO), the industrial development arm of the Greater Scranton Chamber of Commerce. I have been associated with the Chamber and SLIBCO for 20 years and have been involved with economic development for 25 years.

On behalf of the Chamber's Board of Directors and our membership consisting of over 2,600 businesses in the Greater Scranton area, I am here to share with the Committee Members mine-land reclamation problems specific to northeastern Pennsylvania.

By way of background, the Scranton Lackawanna Industrial Building Company (SLIBCO) is a not-for-profit community economic development company. Our mission is "to create and retain jobs by developing real estate and obtaining financing for business".

SLIBCO was created out of necessity when the coal industry bottomed out after World War II and post - war depression had set in on northeastern Pennsylvania. Under the SLIBCO umbrella, public and private sectors began pooling their resources to attract business to the greater Scranton area. Since SLIBCO's inception over 55 years ago, SLIBCO has been responsible for the planning, financing, and/or construction of over 287 projects creating over 25,000 new jobs and adding approximately $423 million to the economy.

SLIBCO currently owns six buildings totaling over 1.1 million square feet and leases them to JC Penney, Prudential, Fleet Financial Services, Northrup Grumman, General Dynamics and Diversified Information Technologies. We also have developed 10 office, technology and industrial parks in Lackawanna County.

SLIBCO is also the largest developer of abandoned mine lands in Lackawanna County and has direct experience in the marketing and development of these lands.

As you are aware, the economic development in the United States is fierce. Every state and community throughout the nation are fighting for new corporate expansions and relocations – new jobs for their communities.

The marketing of lands within the mining measures as they currently exist will always place northeastern Pennsylvania at a disadvantage of attracting industry to the area when these sites are compared to other sites without similar problems.

The result of being in this disadvantage position, are loss of jobs for the community and the loss of millions of dollars invested into the state through payroll, services and operating expenditures. Our experience in Lackawanna County has borne out these observations. The Scranton labor market has been one of "persistent and substantial unemployment and underdevelopment " for decades.

The industrial sites available in the older industrial areas of Lackawanna County, situated over abandoned mines, have been available for decades but have failed to attract new investment. The successes in attracting high technology, office and growth industries have occurred primarily at greenfield sites outside of the "mining measures". These include the Northrop Grumman facility in Benton Township, Chrysalis facility Scott Township, Fleet Financial Services, Cigna and Alliance Capital at the Glenmaura Corporate Center. Prudential and JCPenny facilities at the Office Park at Montage and Met Life in Abington Executive Park.

The development of attractive business parks within abandoned mine areas has many challenges. The cost, risk, appearance, engineering challenges and time delays are all the barriers that prevent the reuse of these properties for job producing locations.

Before a company would even consider sites over mined areas, they would have to evaluate the risk. Upfront monies would have to be spent for subsurface geotechnical reports, testing and drilling. Then ultimately, if chosen to proceed to the next step, the premium cost to design and construct remedial measures such as the removal of above grade structures, the filling of mine openings and voids, grading and compaction of strip pits are all to often cost prohibitive. These additional tasks take time and money that the prospective companies are not willing to make especially if other competing sites don't require the same cash outlay and time delay.

Another major environmental and liability concern associated with these sites are the stripping pits and deep topographic depressions. These geological features were historically used as community dumping sites. Even today, illegal dumpers use these areas as dump site for all types of waste.

Land located within the mining measures have poor soil conditions and/or subsurface voids which presents a high risk of subsidence problems or differential settlement.

One of the basic rules of risk management is avoidance. Site selection teams and executives use engineering reports and common sense that ultimately forces them to eliminate abandoned mine lands because of the risk.

Coal scarred land with the existence of culm banks, red ash piles, strip pits and the lack of vegetation are contrary to the clean and sleek corporate image of the 21st century corporate America.

These lands not only bear the additional cost and risk but studies have shown direct links between employee morale and productivity relative to operating in such an unsightly environment.

Another key factor employers consider is the amount of time necessary to get the operation up and running.

The timing issue all boils down to identifying an area where the company's performance contracts can be executed. This always requires a fast-tracked project. The major component to a fast-track project is the availability of land or buildings that already have all the necessary permits and approvals to start construction. In other words, the site must be "ready to go".

Unfortunately, prospective companies know the impacts (cost, risk, time, aesthetics and image) of developing over mining measures and automatically eliminate these sites without any consideration.

The failure to develop industrial land sufficiently attractive to induce job-producing investment by growing, technologically-competitive industries, will result in continued economic stagnation, substandard income, under employment and the continued out-migration of our young minds – our children.

The existing Abandoned Mine Land Program as authorized under Title IV of the Surface Mining Control and Reclamation Act of 1977 (SMCRA) has served our region well. Under SMCRA, the Pennsylvania Department of Environmental Protection, Bureau of Abandoned Mine Reclamation has abated many dangerous conditions such as open mine shafts and dangerous highwalls, and has regraded many acres of blackfields. Also under SMCRA, the Office of Surface Mining addresses emergency AML problems.

While SMCRA has addresses and continues to address many health, safety and environmental problems in northeastern Pennsylvania, there are two reasons why SMCRA funding alone can not address the reuse of abandoned mine lands for industrial development.

1. Under SMCRA, AML reclamation is prioritized with health and safety problems ranking highest, environmental problems ranking next, then followed by economic development. Current SMCRA guidelines limit reclamation activities at health, safety and environmental problem sites to regrading and preclude the additional compaction and subsurface stabilization required to prepare a site for industrial reuses.

2. Pennsylvania has the largest inventory of abandoned mine land problems in the country and northeastern Pennsylvania has its fair share, or unfair share, of the Commonwealth's problem areas. Given the current AML Fund appropriation levels, it will be decades, if not centuries, before AML fund monies can be expended to economic development.

In summary, if we are to realize the productive reuse of the thousands of acres of "blackfield sites" in northeastern Pennsylvania, we need the financial resources to eliminate these barriers and provide a level playing field for northeast Pennsylvania in our efforts to attract corporate expansion and relocations.

Mr. Chairman and Committee Members we need to augment SMCRA with special legislation to provide additional grant funding to grade, stabilize, compact and revegetate mined scarred land if we truly want to put these degraded and abandoned lands back to productive use.

Thank you for your time and I will be happy to assist your committee in the future.

Andrew C. Skrip
Vice President

Mr. Skrip joined the Greater Scranton Chamber of Commerce in March of 1980 as Sales and Marketing Manager for the Scranton Lackawanna Industrial Building Company (SLIBCO). He administered SLIBCO's industrial marketing programs for job attraction and retention.

In July of 1980, he was promoted to Manager of Industrial Development and managed SLIBCO's land, building and construction projects. His major responsibilities included the management and expansion of Keystone and Stauffer Industrial Parks and the General Dynamics facility.

In November 1981 he was assigned the task of administrating for SLIBCO, the Pennsylvania Industrial Development Authority (PIDA) Loan Program which provides low interest rate financing for real estate projects. In November, 1983, Mr. Skrip was promoted to Vice President of Industrial Development and now oversees the marketing, financing and construction efforts of SLIBCO.

Before joining the Chamber, Mr. Skrip was Director of Operations for the Eastern Distribution Center, Inc. and Foreign Trade Zone #24 for five years. Mr. Skrip assisted in the financing and development of a 265-acre industrial park adjacent to the Wilkes-Barre/Scranton International Airport.

Since joining the Chamber, Mr. Skrip has helped numerous companies locate and expand their production, office, and distribution facilities in Lackawanna County. He has managed the financing and construction of the Glenmaura Corporate Center, Office Park at Montage, Scott Technology Park, Stafford Avenue Business Park, Benton Industrial Park, Old Forge Industrial Park and Keystone and Stauffer Industrial Park expansions. He has also supervised multi-million dollar build-to-suit projects for Fleet Pennsylvania Services, The Prudential, J.C. Penney Company, Northrop Grumman and General Dynamics. In 1999 he oversaw the renovation of the former Globe Building in Downtown Scranton into the new corporate headquarters for Diversified Information Technologies. During his professional career Mr. Skrip has managed the development of 10 local business, office and technology parks and the construction or renovation of more than 1.1 million square feet of buildings.

In 1999, the Pennsylvania Economic Development Association named Mr. Skrip Pennsylvania's "Economic Developer of the Year."

Mr. Skrip was graduated from the Pennsylvania State University with an Associate Degree in Computer Science, and a Bachelor of Science Degree in Business Administration with concentrations in marketing, management, and international business. During his four years of college, Mr. Skrip worked on local highway construction projects. Mr. Skrip also completed courses at the American Management Association in Planning and Developing Plant Facilities; National Council for Urban Economic Development in Real Estate Financing Techniques; R.S. Means Construction Seminar in Scheduling and Project Management; World Commerce Institute for Organization Management at the University of Delaware; The Dale Carnegie Course; Northeastern Industrial Developers Association in Fundamentals of Industrial Development; and Real Estate Marketing from Penn State University.

Mr. Skrip is an active member of the Pennsylvania Economic Development Association, Northeastern Economic Developers Association, Mid Valley Enterprise Zone, Workforce Investment Board, Luzerne-Lackawanna Brownfields Task Force, SLIBCO Utilities and the Industrial and Office Real Estate Brokers Association of New York.

Mr. Skrip designed and constructed his home and resides with his wife Darlene and their two children, Brian and Tina in Olwen Heights, Roaring Brook Township.

Scranton Chamber of Commerce Resume'

The Greater Scranton Chamber of Commerce and its subsidiaries is a non-profit organization which through its membership division promotes business interest and economic development in the Greater Scranton area of Lackawanna County.

The Scranton Chamber of Commerce was formed in 1867 for the purposes of promoting economic growth of the City of Scranton and developing innovative ways to keep the Scranton economy moving forward.

In 1914, The Chamber formed the Scranton Industrial Development Company (SIDCo), the forerunner of all future Chamber economic development efforts. SIDCo continues the good work of The Chamber by fostering company expansions in Scranton.

The success of the economic development effort encouraged the formation of the Scranton Industrial Building Company (SLIBCO) in 1945. SLIBCO is the nuts and bolts of the Scranton Chamber's economic development efforts which has developed 10 business, technology and industrial parks and owns of 1.1 million square feet of office, warehouse and manufacturing facilities. The Lackawanna Industrial Fund Enterprise (LIFE) was created in 1950 as a non-profit community development corporation that provides risk capital necessary to complete community financial packages for business expansion and relocations.

Through SLIBCO (resume' attached) and LIFE many corporate expansion and relocations were realized over the past 133 years of the Chamber's existence. A program that has won national awards year after year for its ability to assemble creative financing and development packages for business clients.

The Chamber family of organizations has a rich history of responsiveness to community needs and will be for years to come.

SLIBCO Resume'

SLIBCO is a wholly owned subsidiary of the Greater Scranton Chamber of Commerce and is organized as a not-for-profit industrial development corporation under Pennsylvania law. A volunteer Board of Directors representing a wide cross-section of geographic, social and business interests oversees all SLIBCO activities.

SLIBCO's mission is "to create and retain jobs by developing real estate and obtaining incentive financing for businesses." Now in its 54th year, SLIBCO, with the help of two other Chamber divisions – LIFE and The Scranton Plan - is the driving force behind job creation and retention in Lackawanna County. As of this writing SLIBCO has been responsible for the planning, financing, and/or construction of 287 successful projects, creating over 21,000 new jobs and adding close to $425 million in real estate investment to the local economy.
SLIBCO was created out of necessity. By 1945, the coal industry had bottomed out and the post-war depression had set in. Lackawanna County's unemployment rate skyrocketed and the area's population began to decline. To help in the area's recovery, the Scranton Plan Corporation was established. The Plan raised $1.2 million through the sale of debenture bonds to purchase the closed Murray Plant from the federal government. This venture saved hundreds of local jobs and served as a model for future development activities.

Under The Scranton Plan, the community's public and private sectors pooled their resources to purchase additional industrial sites and construct shell buildings for lease to outside industry. SLIBCO was formed to coordinate this shell building effort. A few years later, the Chamber formed the Lackawanna Industrial Fund Enterprises (LIFE) to serve as a non-profit community-banking arm for SLIBCO's development projects. LIFE raised $2.9 million to finance the construction of additional SLIBCO shell building.

To complement their successful shell building program, SLIBCO and LIFE soon began developing raw land into industrial parks. In 1961, 320 acres of land was purchased on the Dunmore/Throop border and developed into Keystone Industrial Park. Today, Keystone Park houses 25 different companies, which together employ more than 5,300 workers. Since the 1960's the SLIBCO/LIFE team has also built the Stauffer Industrial Park, the W.W. Scranton Office Park at Montage, Benton Industrial Park, Scott Technology Park, Stafford Avenue Business Park and most recently, Glenmaura Corporate Center. Altogether, these parks cover 1,200 acres and employ more than 10,000 workers.

Over the years, LIFE also recognized the significant economic impact tourism could have on Lackawanna County. LIFE provided $1.1 million in seed funding in 1976 for the Montage Ski Resort, located just outside Scranton's central city. The tourism segment of the local economy continued to grow, and in 1982, LIFE supplied the final $500,000 to complete the $13 million renovation of the Erie-Lackawanna train station into a magnificent hotel complex.

Also, in 1982, The Scranton Plan was reorganized as the Chamber's industrial marketing arm. The Scranton Plan invests more than $250,000 annually marketing Lackawanna County via direct mail campaigns, videos, paid space advertising, property spec sheets, targeted marketing studies, and special corporate events.

In recent years, SLIBCO, LIFE and The Scranton Plan have enjoyed great success recruiting new employers to Lackawanna County and completing build-to-suit projects
for major national corporations. In 1986, the team combined eight different financing sources to complete a $12 million, 115,000 square foot manufacturing facility for Grumman Electronics. The development was considered so unique and complex that it was named one of the nation's "Top Ten Development Deals" by Site Selection Handbook. In 1989, after completing large build-to-suit projects for The Prudential and JCPenney Catalog Customer Service, the team was honored by Site Selection Handbook, this time as one of the "Top Ten Development Groups in the Country."

The following projects highlights SLIBCO's economic development history:

>>**1961** - SLIBCO and LIFE purchase 320 acres along the Dunmore/Throop border and develop the Keystone Industrial Park. The park is home to over 25 companies that occupy over 2.6 million square feet and employ more than 5,300 workers.

>>**1970** - SLIBCO and LIFE purchase 390 acres along the Scranton/Taylor border and develop the Stauffer Industrial Park. The park houses 14 companies that occupy approximately two million square feet and employ more than 1,500 workers.

>>**1976** - LIFE provides $1.1 million in seed money to the Montage Ski Resort project in the City of Scranton. The seed money is the final piece of the financing puzzle needed to make the recreation area a reality.

>>**1982** - LIFE supplies the final $500,000 to complete a $13 million renovation of the Erie-Lackawanna Train Station in downtown Scranton into a magnificent hotel complex. The "Lackawanna Station Hotel" becomes the centerpiece of a massive downtown revitalization campaign.

>>**1983** - The Scranton Plan commissions The Fantus Company to complete a comprehensive white-collar analysis of the Scranton area. The report suggests that Scranton is ideally suited to recruit major office employers but that the area needs to develop a first class office park. SLIBCO initiates a search for an appropriate office park site.

>>**1986** - The Scranton Plan recruits Grumman Electronics to Lackawanna County from Long Island, New York. SLIBCO and LIFE secure grants and low-interest loans from eight different sources and construct the Benton Industrial Park in northern Lackawanna County to house the Grumman operation. SLIBCO constructs a $12 million, 115,000
square foot high-tech facility and leases it to Grumman. As part of the project, SLIBCO also constructs an on-site sewage treatment plant and water holding tank and rebuilds a one-mile long township-owned roadway to serve the building. The project is so complex, it is recognized nationally as one of the "Top Ten Development Deals" for 1986.

>>**1987** - SLIBCO secures infrastructure grants from the Commonwealth of Pennsylvania and completes a 55 acre expansion at the Keystone Industrial Park. The expanded area sells out within two years, creating 500 new jobs.

>>**1987** - SLIBCO puts the finishing touches on the 123-acre "W.W. Scranton Office Park at Montage", located at the base of the Montage Ski Resort. SLIBCO sells six acres to the New York Times Company, which constructs a $10 million broadcast facility in the park. SLIBCO builds the park in response to the 1983 white-collar analysis prepared by Fantus.

>>**1988** - The Scranton Plan recruits the Prudential Asset Management Company to the area from Florham Park, New Jersey. SLIBCO secures incentive financing from the Commonwealth of Pennsylvania and constructs a $10.7 million, 115,000 square foot Class A office facility in the W.W. Scranton Office Park at Montage. PAMCO leases the building long term and creates 450 new jobs.

>>**1988** - The Scranton Plan recruits JCPenney Catalog Customer Service to the area. SLIBCO secures incentive financing from the Commonwealth of Pennsylvania and builds a $3.75 million catalog sales center in the W.W. Scranton Office Park at Montage. Penney leases the facility long term and hires 500 workers.

>>**1988** - SLIBCO completes a $1.7 million, 50,000 square foot expansion to the General Dynamics manufacturing facility in Eynon, Lackawanna County. SLIBCO built the original building as a shell in 1957 and leased it to Chrysler Corporation's military tank
division. In 1982, General Dynamics purchased the tank division from Chrysler and assumed the existing lease. SLIBCO's 1988 expansion allows General Dynamics to preserve 585 jobs.

>>**1988** - The Scranton Plan commissions SRI International to do a comprehensive pharmaceutical/high-tech analysis of the Scranton area. The report notes that Scranton offers many advantages to pharmaceutical, research

and development, and high technology companies but suggests that a new, upscale business park be constructed to accommodate such firms. SLIBCO initiates a search for an appropriate park site.

>>1989 - SLIBCO announces plans to turn 198 acres located in Scott Township, Lackawanna County, into the region's first park designed primarily for pharmaceutical,
research and development, and high technology firms. SLIBCO secures some of the infrastructure grant financing needed to build the park from the Commonwealth of Pennsylvania and federal government. The development is named the Scott Technology Park, built in response to SRI's 1988 pharmaceutical/high tech analysis.

>>1990 - SLIBCO secures infrastructure grants from the Commonwealth of Pennsylvania and begins a 200 acre expansion and land reclamation project within Stauffer Industrial Park.

>>1990 - SLIBCO secures infrastructure grant financing to construct the 13.6 acre Stafford Avenue Business Park. The Scranton Plan convinces local developer Public Service Enterprises to construct a series of speculative flex buildings in the park. SLIBCO's running of infrastructure into the area allows another private developer to construct the "Montage Medical Park" on 75 acres adjacent to the Stafford Avenue Business Park.

>>1991 - SLIBCO secures additional infrastructure grant financing from the Commonwealth of Pennsylvania to assist ongoing construction efforts within the Scott Technology Park.

>>1991 - SLIBCO secures additional infrastructure grant financing from the Commonwealth of Pennsylvania to complete the expansion and land reclamation project within Stauffer Industrial Park.

>>1993 - Ribbon-cutting ceremonies are held marking the official completion of SLIBCO's new Scott Technology Park. Ground is broken for a new 17,500 square foot toxicology laboratory in the park by Pharmakon Research International, Inc., a wholly owned subsidiary of DNX Corporation of Princeton, New Jersey. The new $3.2 million research and development facility is financed, in part, by low-interest construction dollars secured by SLIBCO.

>>1993 - SLIBCO and the Prudential Asset Management Company announce plans for a 56,000 square foot expansion of the SLIBCO-owned 115,000 square foot office facility within the W.W. Scranton Office Park at Montage. SLIBCO will continue to own the complex and lease it to The Prudential.

>>1993 - SLIBCO breaks ground for the Prudential expansion. Prudential announces that it will have 850 employees upon facility completion.

>>1993 - The first tenant in the expanded area of Stauffer Industrial Park opens its doors. B.C. Bundt, a manufacturer of Bundt cakes, was recruited to the area from Tampa, Florida, by The Scranton Plan. SLIBCO secured incentive construction financing for the company from the Commonwealth of Pennsylvania.

>> 1994 - After an intense, 16-month recruitment process, The Scranton Plan convinces NatWest Bank to construct a 300,000 square foot, 1,800-job customer service office in Scranton. Preferring a lease, NatWest asks SLIBCO to design, construct and own the building.

>> 1994 - SLIBCO begins simultaneous construction of NatWest's building and the new park it will rest in - the 353 acre Glenmaura Corporate Center. The new park is a joint
development between SLIBCO, Lackawanna County and Hemingway Development Corporation.

>> 1995 - NatWest occupies its new home in the Glenmaura Corporate Center. The $34 million facility is completed on time and within budget.

>> 1996 - SLIBCO provides consulting services to the City of Carbondale and the Carbondale Industrial Development Authority who build an 88 acre industrial park/industrial incubator for technology-based firms on the site of the former D&H Railyards in the city.

>>1997- SLIBCO acquires and renovates the former Globe Store Building in Downtown Scranton. Built in 1888, the 250,000 square foot landmark former department store is leased to Diversified Information Technologies. This

document imaging company moves its world headquarters into the building and announces plans to hire 550 employees within 5 years.

>>**1999-** SLIBCO sells 15 acres in the Scott Technology Park to Herff Jones, Inc.for the construction of an 80,000 square foot state-of-the-art printing facility. Herff Jones plans to employ over 150 within three years of construction. After the Herff Jones land sale SLIBCO begins work on expansion plans for Scott Technology Park.

The CHAIRMAN. David.

STATEMENT OF DAVID A. DONLIN

Mr. DONLIN. Thank you Congressman, Congressman Sherwood, Congressman Holden. I am not an expert on anthracite mining, nor am I an environmental expert, but all my life has been spent here in the anthracite coal fields of northeastern Pennsylvania, with the exception of service to my country in the Air Force.

For nearly 10 years I have served as the paid executive of the Schuylkill Chamber of Commerce, which is based in Pottsville. I currently serve as the volunteer president of the Economic Development Council of Northeastern Pennsylvania, which serves seven of our counties. I have served in many volunteer leadership positions in economic and community development and in human services capacities in three of our counties. Another current voluntary involvement is as a task force cochair on economic development for Schuylkill County's VISION, a citizen-based program that's developed a strategic plan for the recreation of Schuylkill County. I share the experience of many of my professional colleagues throughout the region, that of working to recreate communities and opportunities while having one arm tied behind our backs.

The visionary legislative proposal that you are considering here in Scranton this afternoon represents the beginning of what I believe is the third phase of our regional restoration to the benefits of full American citizenship. After our region and our ancestors fueled the industrial revolution in America, we were left with the environmental devastation and the almost total destruction of our regional economy. Both of these experiences have been quantified and recorded for history.

I also happen to believe that the invisible devastation that occurred to our collective human dignity still remains, limiting our capacity to develop our region's infrastructure or our collective human potential. We have been successful in surviving 25 percent unemployment rates over decades by self-investment in jobs with limited pay and benefits that represented the post-World War II experience. Not only did we end up at that time beginning to export some of our finest and well-educated sons and daughters, because of the limited opportunity of that era, we were also exporting the environmental residuals of the devastating mining experience of the previous hundred years. Unfortunately, this experience continues today. However, positive experiences that we did discover at that time were found in the excellent work ethic of our neighbors.

Our second phase has been more successful in that our excellent educational institutions working together with community-based local, regional, State and Federal development organizations have created a work force with greater skills and that same strong work ethic. Wages and benefits have grown, and unemployment has been reduced, but we still lag behind our State and Nation in both employment and wage and benefit programs, and we still lack the regional community and the financial capacities to tackle large projects because of the absence of developable land and the conditions of the land that we have inherited.

This proposal, in my opinion, represents the great opportunity that our region needs to once again participate as equals in the

American society. The restoration of our sacred lands will reestablish our collective spirit and allow all of us to work together to share in the great benefits of being United States citizens.

Through the use of the opportunities represented in this program, we can work through regional mechanisms, leverage additional public and private investment using as examples the American Heritage River Initiative, the Commonwealth's Keystone Opportunity Zone Program and others to reclaim our land and to move forward as a regional community. We could recreate the region, and most importantly, in my opinion, to create that new vision of northeastern Pennsylvania, a community that shares the same opportunities, the same environmental qualities, the same spirit that has made the United States a great country.

Through this new commitment to northeastern Pennsylvania, we can continue our great work ethic and create new investment opportunities that will make our region an attractive quality-of-life experience. We will be able to recover many of our sons and daughters who have migrated away from home to rejoin their families, to offer an entirely new generational experience for new citizens that will be moving to our communities, and stop export of the acid mine water that pollutes all of the northeastern Pennsylvania tributaries all the way to the Chesapeake Bay.

The anthracite mining experience of past generations has left us with our heritage, both good and bad. Currently, the anthracite industry through favorable tax credit consideration by the Congress back in the 1980's initiated a number of cogeneration facilities that provide appropriate environmental measures that have been absent in the past. Proposals for conversion of coal energy to liquid fuel and carbon research technology both represent new approaches to anthracite coal recovery that also recognize and meet environmental standards of the United States in the 21st Century. This proposal would assist us in cleaning up our region, restoring its natural beauty, while also recognizing new technologies that meet environmental requirements.

Many regions of the United States have suffered through environmental and economic devastation and with public investment have recovered to become important cogs in the United States economy. Here in northeastern Pennsylvania we have shared our resources by fueling the industrial revolution which built the United States. We have done everything within our collective capacity to reach the American dream. The opportunity represented in this proposal created by our congressional delegation is the expressway to our future of national equality as a region. It is our road to full participation in the wonderful experience encompassed in being United States citizens. We thank you for your interest and look forward to a wonderful new partnership in recreating northeastern Pennsylvania.

The CHAIRMAN. Thank you, David. And if you ever think about going into a second career, you might think about writing.

[The prepared statement of Mr. Donlin follows:]

Testimony Presented to the Congressional Committee on Resource

Subcommittee on Energy & Mineral Resources

Scranton, Pennsylvania – January 24, 2000

Testimony Presented by – David A. Donlin
President, Economic Development Council of Northeastern Pennsylvania
Executive Director, Schuylkill Chamber of Commerce

Testimony Presented to the Congressional Committee on Resource
Subcommittee on Energy & Mineral Resources
Scranton, Pennsylvania – January 24, 2000
Testimony Presented by – David A. Donlin
President, Economic Development Council of Northeastern Pennsylvania
Executive Director, Schuylkill Chamber of Commerce

I would like to thank the members of this Congressional Committee on Resources for your interest in the anthracite region of Pennsylvania, and for granting me this opportunity to offer my life experience concerning our great regional community.

I am not an expert on anthracite mining, nor am I an environmental expert, but all of my life experience has been here in the anthracite coal fields of Northeastern Pennsylvania, with the exception of service to my country in the United States Air Force.

For nearly ten years, I have served as the paid executive of the Schuylkill Chamber of Commerce, which is based in Pottsville. I currently serve as the volunteer President of the Economic Development Council of Northeastern Pennsylvania which serves seven of our counties, and have served in many volunteer leadership positions in economic and community development, an in human services capacities in three of our counties. Another current voluntary involvement is as a Task Force Co-Chair on Economic Development for Schuylkill County's VISION, a citizen-based action program that has developed a strategic plan for the redevelopment of Schuylkill County. I share the experience of many of my professional colleagues throughout the region, that of working to recreate communities and opportunities while having one arm tied behind our backs.

This visionary legislative proposal that you are considering here in Scranton today, represents the beginning of what I believe is the third phase of our regional restoration to the benefits of full American citizenship. After our region and our ancestors fueled the industrial revolution in America we were left with the environmental devastation and the almost total destruction of our regional economy. Both of those experiences have been quantified and recorded for history. I also happen to believe that the invisible devastation that occurred to our collective human dignity still remains, limiting our capacity to develop our region's infrastructure, or our collective human potential. We have been successful in surviving 25% unemployment rates over decades by self-investment in jobs with limited pay and benefits that represented the post World War II experience. Not only did we end up at that time, beginning to export some of our finest and well-educated sons and daughters because of the limited opportunity of that era, we were also exporting the environmental residuals of the devastating mining experience of the previous hundred years. Unfortunately, this experience continues today. However, positive experience that we did discover, at that time, was found in the excellent work ethic of our neighbors.

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Wages and benefits have grown and unemployment has been reduced, but we still lag behind our state and nation in both employment and wage and benefit programs, and we still lack the regional community and the financial capacities to tackle large projects because of the absence of developable land and the conditions of the land that we have inherited.

This proposal, in my opinion, represents the great opportunity that our region needs to once again participate as equals in the American society. The restoration of our sacred lands will reestablish our collective spirit and allow all of us to work together to share in the great benefits of being United States citizens.

Through the use of the opportunities represented in this program we can work through regional mechanisms, leverage additional public and private investment (for example, the American Heritage River Initiative, the commonwealth's Keystone Opportunity Zone Program it's Reclaim Pennsylvania Mine Reclamation Program and the public/private initiative, the Financial Resources for the Environment (FRE) being proposed by utilities and banks in the commonwealth) to recreate the region, and most importantly, in my opinion, to create that new vision of a Northeastern Pennsylvania community that shares the same opportunities, the same environmental qualities, and the same spirit that has made the United States a great country.

Through this new commitment to Northeastern Pennsylvania we can continue our great work ethic and create new investment opportunities that will make our region an attractive quality of life experience. W e will be able to recover many of our sons and daughters who have migrated away from home, to rejoin their families, offer an entirely new generational experience for new citizens moving to our communities, and stop export of the acid mine water that pollutes all of the Northeastern Pennsylvania tributaries to the Chesapeake Bay.

The anthracite mining experience of past generations has left us with our heritage, both good and bad. Currently, the anthracite industry, through favorable tax credit consideration by the Congress back in the 1980's, initiated number of cogeneration facilities that provide appropriate environment measures absent in the past. Proposals for conversion of coal energy to liquid fuel, and carbon research technology both represent new approach to anthracite coal recovery that also recognize and meet environmental standards of the United States in the 21st century. This proposal would assist us in cleaning up our region and restoring its natural beauty while also recognizing new technologies that meet environmental requirements.

Many regions of the United States have suffered through environmental and economic devastation, and with public investment have recovered to become important cogs in the United States economy. Here in Northeastern Pennsylvania we have shared our resources by fueling the industrial revolution which built the United States. We have done everything within our collective capacity to reach the American dream. The opportunity represented in this proposal created by our congressional delegation is the expressway to our future of national equality as a region. It is our road to full participation in the wonderful experience encompassed in being United States citizens. We thank you for your interest and look forward to a wonderful new partnership in recreating Northeastern Pennsylvania.

The CHAIRMAN. Bernard.

STATEMENT OF BERNARD McGURL

Mr. MCGURL. Thank you, Mr. Chairman. My name is Bernard McGurl. I am the executive director of the Lackawanna River Corridor Association, a nonprofit community watershed associated created in 1987 to promote the restoration of the Lackawanna River. And I'd like to thank you, Mr. Chairman, Congressman Sherwood, Congressman Holden, Congressman Kanjorski, and your staff for conducting this hearing. I am pleased to provide this testimony on the impacts that over 150 years of anthracite mining and related activities have had on the Lackawanna River and its watershed.

It's appropriate that this hearing occurs in the winter when the stark legacy of the anthracite industry is more visible along our rivers and hillsides. We had an ample opportunity to see that in our flight this morning. Issuing from these seemingly static scars are a wide variety of active and ongoing problems which continue to adversely affect the environment and the economy of northeast Pennsylvania.

I believe it is useful to understand the scope of these complex issues in a historical context. While the intent of the Surface Mining Reclamation and Control Act of 1977 was to promote the reclamation, the level of funding authorized in subsequent years by Congress has been inadequate and has not resulted in the type of holistic and comprehensive efforts that many of us in the anthracite region believe are necessary to restore the environmental and economic vitality of the region.

Again, in an historic context, I offer one exhibit, a map prepared in 1904 by William Dodge, a mining engineer. This map, this is a blueprint copy of it, shows the location of breakers up and down the Lackawanna and Susquehanna watersheds. If you can imagine, the rivers are like tree trunks, and the coal mines are like the bad fruits on there that have been polluting the water since mining first began. This study was commissioned by the State's mining engineers in cooperation with some of the mining companies in 1904. They knew they had a problem then. It was studied and it's been studied for a hundred years, and it's time to do something about it.

In addition to the direct flows of acid mine drainage from flooded underground workings, our rivers are impacted by the loss of freshwater flows in the tributary streams. The mining that has occurred underneath these streams has resulted in the water leaking out of the stream beds and percolating down into the flooded mine voids. These result in added flows of surface water to the interrupted ground water flows, with both of these streams of water interacting with the pyritic materials in the coal measures forming acidic solutions which reenter the rivers through outflow tunnels or bore holes lower in the watersheds. The dried-up tributary stream corridors are then subject to dysfunctional morphology during storm events. These dry stream beds are rapidly surcharged with urban storm water flows and carry large quantities of coal waste sediments into the rivers.

The surface features of abandoned mine lands are a major source of these sediments. Culm dumps, those large black mountains

which are such an evident feature of the man-made topography, are piles of sorted coal and rock waste, a residual of the coal preparation process. Culm has a marginal fuel value. It varies from 60 to 100 percent rock, but there are large amounts of coal embedded in the rock material. These piles are expensive to remove or regrade on their own. The material is generally not adequate to support the construction of buildings. This material has obviously, with the cogeneration industry, a fuel value and an economic value.

There are many culm dumps actually located adjacent to or actually on the Lackawanna floodplain and in several cases, in the riverbed itself. We have a dump up in Jessup at the mouth of the GrassyIsland Creek where a 20,000 cubic yard mass of material was washed into the creek and down into the river during the floods in 1996.

Other notable features are some of the red ash piles we saw today. These are culm dumps where the residual coal is burned. In some cases these fires have continued over a 50- to 75-year period. These ash piles are again used for aggregate purposes. They have the potential of supporting some types of buildings. Other piles that we saw today were the rock piles and the overburden piles that are other features of the stripping activities. The stripping pits and overburden piles themselves are remnants of open-pit surface mining, and it's common on the flanks of the Lackawanna and Wyoming Valley as the coal outcrops toward the ridge tops. Many of these mining sites were created in response to peak market demands during the First and Second World War when there were no requirements for reclamation, and the expedition of the war effort meant to get the coal out and worry about the damages later.

Strip mining along the outcrops was common from 1900 through the 1960's. In fact, several strip mining activities continue in the northern anthracite field, although it is diminishing as the years go by. There are greater amounts of strip mining and remining activities in the southern and middle field.

The use of culm material as a fuel source for auxiliary fuel in fluidized bed electric cogeneration plants is another factor affecting mine reclamation issues as well as the economics of site reclamation. The recent action by the U.S. Environmental Protection Agency proposing to classify culm material combustion ash as a hazardous waste may unfortunately and unwisely, I believe, remove the market asset of culm material as a fuel and make the reclamation of culm sites and associated mine sites more expensive and problematic. Culm ash has a variety of uses in reclamation work both geotechnically and agronomically. The loss of this product will be detrimental to the reclamation in the anthracite region.

A major consideration affecting the economic reuse of anthracite mine sites is surface integrity and subsurface stability. Due to the nature of historic underground mining practices and surface alterations, the geotechnical considerations creating a buildable mine reclamationsite are complex. The presence and condition of underground workings, their depth below the surface, the condition and nature of the intervening rock strata and the situation of subsurface hydrology are all factors which must be considered by anyone wishing to build in the anthracite fields. The situations at sites

within reclaimed strip mine pits have the additional concern of proper compaction when new building construction will occur.

These conditions and situations that I have just discussed are only the physical challenges we face. I believe that Congress must give new tools, resources and capabilities to conduct more effective, multiobjective reclamation activities. We need not only reclaim the land and water resources, but to use the process and product to advance the economic stability of our communities to compete in the global market of the 21st century.

The CHAIRMAN. How much more do you have?

Mr. MCGURL. Just one more page.

I just refer briefly to some observations. I believe we need new tools to get reclamation work underway. I believe the current implementation strategy is not going to be effective even with new funding through existing OSM or EPA programs. I believe that we need a regional program that has a strong county and watershed-based source of local decisionmaking. I believe that the county/watershed reclamation should be a partnership effort; it should be consensus-based, and we should have implementation agencies on a local level. The involvement of State and Federal agencies with this process is vital. I believe that restoration programs need to have multiobjective outcomes. Environmental restoration needs to address land and water recovery. Site reuse needs to make both economic and environmental sense and have broad economic and community benefit. Projects need to be integrated into community plans and act as an alternative to sprawl. Each project process and product needs to have an ongoing goal of stewardship and sustainability.

In summary, I would also note that the reclamation of abandoned mine sites offers this region and the Nation an opportunity to reutilize these valuable industrial resources. Many of the sites are adjacent to existing road and rail infracture. By focusing new industrial, commercial and institution uses of these abandoned mine sites, we will provide our communities with focused growth and further protect our agricultural, timberlands, watershed areas and natural habitat from unwise urban sprawl and speculative development. Our reclamation of abandoned mine lands can help us restore the natural functions to our rivers and watersheds, enhancing downstream waters such as the Chesapeake and Delaware estuaries.

And last I suggest that we understand that water is a carrier of messages. It tells everyone downstream how well we understand and value our environment. Progressive action by Congress can provide us with the capacity to enhance the environmental value of the messages that flow downstream clean and clear from our anthracite headwaters to our great east coast estuaries. These are messages that can enhance the lives of millions of our fellow citizens. Thank you.

The CHAIRMAN. Thank you, Bernard.

[The prepared statement of Mr. McGurl follows:]

Testimony to the Natural Resources Committee
U.S. House of Representatives
by
Bernard McGurl, Executive Director
Lackawanna River Corridor Association
January 24, 2000

Congressman Young, Sherwood, and distinguished members of the Committee on Resources, I am pleased to have this opportunity to provide testimony concerning the impacts that the one-hundred-fifty-years of anthracite coal mining and related activities have had on the Lackawanna River and its watershed.

It is appropriate that this hearing occurs in the winter when the stark legacy of the anthracite industry is more visible along our rivers and hillsides. Issuing from these seemingly static scars are a wide variety of active and ongoing problems which continue to adversely affect the environment and economy of northeast Pennsylvania.

I believe it is useful to understand the scope of these complex issues in a historical context. While the intent of the Surface Mining Control and Reclamation Act of 1977 (SMCRA) was to promote reclamation, the level of funding authorized by Congress in subsequent years has been inadequate and has not resulted in the type of holistic, comprehensive effort that many of us in the anthracite region believe is needed to restore the environmental and economic viability of the region.

Again, in the historical context, I submit one exhibit, a map prepared in 1904 by William F. Dodge, mining engineer. The map shows the relationship of the hundreds of anthracite collieries in the Lackawanna-Luzerne Valley to the streams and tributaries of the Lackawanna and Susquehanna rivers. The map was prepared by Dodge to accompany his report on the sources of water pollution caused by the anthracite industry. These water pollution sources are still with us nearly one-hundred years later.

In addition to direct flows of acid mine drainage from flooded underground mine workings, our rivers are impacted by the loss of freshwater flows in the tributary streams. Water flow in many streams as well as the Lackawanna and Susquehanna rivers themselves is lost through fissures into the subterranean mine pool system.

The results are added flows of surface water to the interrupted groundwater flows with both streams interacting with pyritic materials in the coal measures forming acidic solutions which reenter the rivers through outflow tunnels or bore holes lower in the watersheds.

The dried-up tributary stream corridors are subject to dysfunctional morphology during storm events. These dry stream beds are rapidly surcharged with urban stormwater flows and carry large quantities of coal waste sediments into the rivers.

The surface features of abandoned mine lands are a major source of these sediments. Culm dumps, those large black mountains which are such an evident feature of the manmade topography, are piles of sorted coal and rock waste, residual of coal breakers processing coal for market. Culm is a marginal coal/shale material which is variously 70 to 100% non combustible rock/shale. These piles are expensive to remove or regrade. This material generally is not adequate to support the construction of buildings. The materials may have residual fuel value and economic value.

There are numerous culm dumps actually in or adjacent to the water courses of the Lackawanna River and its tributaries. Two to five year storm events will regularly wash thousands of cubic yards of culm material from these dumps into the river.

Other notable surface features are red ash piles. These are culm dumps where residual coal has burned, in some cases over a fifty-to-seventy-five-year period. These red ash piles are used for aggregate purposes and they have a market value in some cases. The red ash piles are capable of supporting some types of buildings depending on such variables as depth of red ash material, compatibility analysis and building type.

Rock piles and overburden piles are the most extensive compactability features of anthracite topography. Rock piles are unsorted rock and shale with some anthracite content. Rock piles are residual wastes of mine tunnel, gangway, manway and auxiliary subterranean excavation.

Stripping pits and overburden piles are the remnants of surface open pit mining common on the flanks of the Lackawanna - Wyoming field where coal seams outcropped close to the surface. Many stripping sites were created in response to the peak market demands during World War I and II. There were no reclamation requirements at that time.

Strip mining along the coal outcrops was common from 1900 through the 1960's. Several strip-mining operations continue to this day in the northern field. There may be some value of remining by strip methods to promote reclamation and reuse of some sites. The diminishing variables of the market for anthracite will affect any economy of remining.

The use of culm materials as a fuel source or auxiliary fuel in fluidized bed electric steam cogeneration is another factor affecting both the market value (personal property) as well as the economics of site reclamation. The recent action by the U. S. Environmental Protection Agency classifying culm combustion ash as a hazardous waste may unfortunately and unwisely, I believe, remove the market asset of culm material as a fuel and make the reclamation of culm dump sites more expensive and problematic. Culm ash has several uses in reclamation work, geo technically and agronomically. The loss of this product use will be detrimental to the reclamation of the anthracite region.

A major consideration affecting the reclamation and economic reuse of anthracite mine sites is surface integrity and subsurface stability. Due to the nature of historic underground mining practices and surface alterations, the geo technical considerations of creating a buildable mine reclamation site are complex. The presence and condition of underground workings, their depth below the surface, the condition and nature of the intervening rock strata, and the situation of subsurface hydrology area all factors which must be considered by anyone wishing to build in the anthracite fields.

The situations at sites with reclaimed strip pits have the additional concern of proper compaction of pits when new building construction will occur.

The conditions and situations that I have just discussed are only the physical challenges we face. I believe that Congress must give us new tools, resources and capacities to conduct more effective and multi objective reclamation activities. We need not only to reclaim the land and water resources, but to use the process and product to advance the economic ability of our communities to compete in the global market of the Twenty-first Century.

To that end I offer these brief observations.

- The impediments to federal-state-local cooperation are serious: differing budget cycles, bidding and auditing requirements, program authorizations and limitations all tend to diminish opportunities to develop project synergy. The weight of bureaucratic traditions, behavior and regulatory perspective and attitude can limit the utility of existing federal programs.

- I suggest that the scope of work, technological and programmatic challenges are so large that a new focused program and funding source are necessary.

- An anthracite regional program needs to have a strong county/watershed-based source of local decision making. The local decision-making group needs to be broad and inclusive of many watershed stakeholders: watershed/conservation interests, local government (county) interests, state agency interests, community and economic development interests, and property owners.

- A county/watershed consensus-based reclamation board or authority should be encouraged but not mandated as long as some other consensus-based management and implementation body is in place or will be created.

- Involvement of state agencies with each county watershed-based group is essential.

- The issues related to private property need to be respected. The responsibilities of private property owners need to be recognized as well. The greater community good should have some precedent when necessary to manage or eliminate physical, environmental, economic or aesthetic nuisances even though the nuisance is located on or arising from a private property.

- Restoration programs need to have multiple objective outcomes: environmental restoration needs to address land and water recovery; site reuse needs to make both economic and environmental sense and have a broad community benefit; projects need to be integrated into community plans to act as an alternative to sprawl; each project process and product needs to have an ongoing goal of stewardship and sustainability.

In summary, I would also note that the reclamation of abandoned mine sites offers this region and the nation an opportunity to reutilize these valuable industrial site resources. Many AML sites are adjacent to historic infrastructure; the road, rail and utility links so necessary to the anthracite industry can be reconfigured to meet our contemporary and future needs. By focusing new industrial, commercial, institutional, residential and open space development on AML sites, we can provide our communities with focused growth and further protect our agricultural, timber lands, watershed areas, and natural habitat lands from unwise urban sprawl and speculative development. Our reclamation of AML lands can help us restore the natural functions to our rivers and watersheds enhancing downstream waters such as the Chesapeake and Delaware estuaries.

Lastly, I suggest we understand that, "water is a carrier of messages, it tells everyone downstream how well we understand and value our environment."

Progressive action by Congress can provide us the capacity to enhance the environmental value of the messages that flow downstream—clean and clear from our anthracite headwaters to our great east coast estuaries.

Messages that can enhance the lives of millions of our fellow citizens. Thank you.

The CHAIRMAN. Mr. Dolence and Skrip, both of you, David, you're in the private sector, right?

Mr. SKRIP. Right.

Mr. DONLIN. Private, nonprofit.

The CHAIRMAN. I am just curious. Do you think—and I happen—Congressman Kanjorski's reclamation bonds in the private sector, do you think that that can be sold? Would people be interested in those type of bonds? I don't mean to put you on the spot, but—.

Mr. DONLIN. Congressman, I think they would, first of all, with the Congressman's sales capacity, but more specifically corporate America's interested in good investment, and they're interested in helping us as communities progress, so I believe that it's a saleable commodity.

The CHAIRMAN. I am going to make a suggestion. I can do it, but I think you ought to do it. You ought to invite the Secretary of Treasury up here and maybe Bill Archer of Ways and Means to try to educate them, because I think you're right. There are people looking to invest money, and it's something—I am not questioning you—I just—the private sector and not the Government— .

Mr. KANJORSKI. And if I may just respond just for the record, Mr. Chairman, this didn't come out of a vacuum. Actually, while H.R. 10 was pending, the banking bill, the insurance industry came to me, and they asked whether or not they would be subjected to CRAs, and I assured them not with this bill. But not too far in the future the banks are going to come in and say, we want an even playing field, so we want to be excluded from CRAs, or we want the insurance companies included. I think that's where the trend is going to be. So I said to them, you know, if they wanted the support of people like myself—and I have not been a proponent of CRAs in the past—I said, why don't you do something prophylactically. So the insurance companies went back and they came to me and they said, we would like to participate in environmental and economic development bonds and that they buy in their portfolio about $20 billion of these bonds, and they said that they felt they could probably cover that type of expenditure very readily.

So we've been working very closely with some investment banking houses and Wall Street, some outstanding legal firms to write these bonds, and I think they've given us assurance of about—the sale of the bond would be about 99.5 of face value, and they're ready market. As a matter of fact, I did talk to major CEOs on the President's plane, and they said they felt for their two companies alone they'd pick up 4- to $6 billion.

The CHAIRMAN. I think it's a great idea, but you're going to have to get it through Congress. That's going to be our biggest problem. There has to be an interest that's evident, or otherwise they're going to—go ahead, David.

Mr. DONLIN. Congressman, we've had a conversation with Congressman Kanjorski from the Economic Development Council prospective—two conversations—with the intent of going to Congressman Sherwood and Congressman Holden and Congressman Gekas to establish what we've referred to as a congressional summit. They have the capacity to bring the government resources to us. We have the capacity to recruit the private sector, to sit down and start some real serious dialog.

The CHAIRMAN. We have to change the laws before this can happen, and it's going to take some effort in the private sector to let Congressmen know that this is a good idea, and that means the administration, too. They have to get on board, and I am sure you've been talking to them about this.

Mr. McGurl, I am sure you're aware I am a plaintiff against the Clinton administration on the heritage rivers. I want clean water, and I want you to have it, and I want it, and I want my rivers clean. I just don't like the administration taking the congressional prerogative by executive order. And this administration has been very guilty of doing this in many, many different areas. And I believe in this government very strongly.

America better wake up. We don't want a king, regardless of what administration. We don't want the use of executive order. This is a congressional obligation because under the proposal now, you may have the money today, but it can be taken away from you tomorrow. That is the role of the Congress, and it should act appropriately, and very frankly, right now I could not pass a heritage river. I think the administration is wrong, but other than that, I think you make some great points.

By the way, are you supporting the Carroll legislation?

Mr. MCGURL. Yes. I am.

The CHAIRMAN. Your recognition goes a lot higher.

Mr. MCGURL. I am glad you brought that up. I was looking for an opportunity to encourage the process through the appropriations committee.

The CHAIRMAN. You made some very good comments in your presentation and most of them I support. I think all of you have made good comments. Mr. Sherwood.

Mr. SHERWOOD. Dave, Andy gave some very definite thoughts about bringing industry in and they had reasons not to come because of the anthracite scarring and your testimony was a little more esoteric and I didn't hear that from you. But have you had that same experience?

Mr. DONLIN. Congressman, as Andy was testifying—and I was not privy to his testimony—it was recreating our actual experience in Schuylkill County, absolutely, the same experience.

Mr. SKRIP. If I can add to that, Congressman Kanjorski mentioned about selling these bonds to insurance companies. And in Lackawanna County there's a total of five insurance companies that came into the area that we have contact with, Prudential, Met Life, Cigna, Kemper, AIG. Not one of these companies are in a brown field site. They all went for greenfield sites because of the risk involved and that's a pretty good example and we do have contact with these insurance companies.

The CHAIRMAN. All of you mentioned it and it was mentioned on the flight today about compacting when we do reclamation work. Should we change that where they have to compact because it takes 35 to 40 years now—.

Mr. SKRIP. You're absolutely right. The sites that you saw today, the greenfield sites that are now reclaimed, they were big holes and the material was just dumped in the holes. They were not compacted. A company just can't locate on that particular site. It has to be compacted. Or for this building here, as an example, there's

probably more than a half dozen veins of coal underneath this building and I would bet there was either caissons, pylons or concrete foundations underneath the foundation itself just to support the building. So again we need more than just grading off the site. We need proper compaction of these sites to buildupon.

The CHAIRMAN. What about the areas of deep shaft mine? Most of what we've seen today, other than when we went to Don's area, was strip mining or open surface mining. The shaft themselves, if we reclaim the land on top is there enough weight to support—do you have to compact it if there's a shaft underneath there or does that have to be dropped?

Mr. SKRIP. The problem is we only see part of the problem when you fly over the area. The biggest problem is what you don't see. And for the most part the mining engineers had very good mapping of where the shafts were and at times you have to fill them in, flush them, whatever it might take. So again, it's all risky business for a company to—.

The CHAIRMAN. Part of this reclamation that we're talking about—that I heard 15 billion, 4.5 billion, all of the billions of dollars, does that include imploding those shafts to make it stable?

Mr. SKRIP. Or filling them in, yes.

The CHAIRMAN. Wouldn't imploding make it a lot easier?

Mr. KANJORSKI. You really can't do it. You'd be fracturing everything above it. Plus, the fly ash and with the culm banks, pulverizing and flushing and filling the mines and they're getting up to 1 or 2 or 3,000 pounds per square inch so that it's a tremendous support system.

The CHAIRMAN. Within the shaft itself.

Mr. KANJORSKI. Right.

The CHAIRMAN. We could require the surface mining group, when they do reclaim or with this organization, the area around the municipality should be compacted or it has no value.

Mr. KANJORSKI. Right.

The CHAIRMAN. You wouldn't have to do it at all.

Mr. KANJORSKI. No. Right. That's why the comprehensive plan is necessary.

The CHAIRMAN. OK. Don.

Mr. SHERWOOD. We talked about that on the way over. We'd have to have some rules. If it's out in the middle of a mountain somewhere you wouldn't have to spend all the money to compact it like you're building a highway but if it's liable to be used for industrial purposes, when it's being done it's gotta be compacted then. And the people that come in are very worried about the engineering costs that they'd have to go through to put a building up here because of the underground mining and the voids and so that's something that has to all be worked out with this.

The CHAIRMAN. Before I go to Tim, my building—the state has no liability for those that voluntarily clean up something. These reclamation areas which we're talking about, if we were to clean them up, wouldn't it be advisable to put in non-liability for someone that goes in and uses it? What I am saying—let's say if someone finally decides there's something toxic on the site after—if I am Procter and Gamble, I shouldn't be liable. I mean somewhere along

the line there should be some way to make sure that they won't—make it attractive that they use the property.

Mr. SKRIP. There is state law in place to cover that. And for the most part the mine scarred lands that we have, the black fields, if you will, or the gray fields are not contaminated. They're just scarred.

The CHAIRMAN. The areas have been burned were contaminated—.

Mr. SKRIP. Stripped or scarred—.

The CHAIRMAN. But they're not contaminated.

Mr. KANJORSKI. They're not contaminated. Our problem is filling, backfilling properly and supporting—underlying support. But you can't really get to it project by project.

The CHAIRMAN. I'll right. Congressman.

Mr. HOLDEN. Dave, I guess of all the counties in the anthracite field, I believe I am right that Schuylkill is probably the most active in current mining operations. How many miners do we have employed in Schuylkill County now?

Mr. DONLIN. We have about 900 now of which 300 are in the cogeneration field from about 600 and that's from a peak of 140,000 in about 1930.

Mr. KANJORSKI. You've got two-thirds of the active mining.

Mr. DONLIN. Right.

Mr. HOLDEN. Two-thirds. OK. So we certainly wouldn't want to do anything to disturb or harm that in any legislative proposal. But going back to Paul's concept or his idea here, in Schuylkill, the information I received is there's about 17,000 acres of unclaimed coal lands. Do you think most of that would be privately owned or publicly owned? Do the commissioners have control over most of it or—.

Mr. DONLIN. Of unclaimed?

Mr. HOLDEN. Yes.

Mr. DONLIN. I believe most of that probably went into tax default and it's controlled by the county.

Mr. SHERWOOD. You mean unreclaimed, don't you? I mean you say unclaimed—.

Mr. DONLIN. Right.

Mr. HOLDEN. It's not reclaimed. Right. Do you think the commissioner has any control over it? I know you don't know for sure.

Mr. DONLIN. I would say the vast majority would be held by the county commissioners.

Mr. HOLDEN. OK. But also now I guess we have continuous mine operations that were in existence predating the 1970's laws that would have a great deal of acreage that they are not responsible to reclaim. So if Paul's idea would move forward, we would have to have some way of eminent domaining that land so we could clean that up also.

Mr. KANJORSKI. Well, that's been one of the problems. Without the ability to get all of the lands as part of the project, you can't clean up 500 acres and then have 500 acres next to it that remains deteriorated. So there are ways of—but by doing it comprehensively the theory is you could deal with the owners, you could deal with the prospective re-users at some point to get the job done and you

may have the capacity but under the authority's act of Pennsylvania you'd have the power of eminent domaining it.

But I've talked to major holdings and I think that with little difficulty we could probably acquire 90,000 acres that they understand or—they really like to be excused from further liability and that would be part of the key to recovery, that they'd have no future liability. I think we'd end up getting a good portion of Girardville, a lot of the older coal companies down there—there are two coal companies around the Hazleton area that have 25,000 acres and I think you have a large one up here of about 10 or 15,000 acres. The fact of the matter is I don't think that's much of a problem as long as we have one entity that's dealing with it on a consistent basis so we don't have every municipality being called upon to do their own arrangement or deal.

The CHAIRMAN. A bit of advice is that any legislation that we work on, let's not put the accommodation procedure. Let's leave it up to the state because you're going to raise all kinds of—.

Mr. KANJORSKI. Absolutely.

The CHAIRMAN. Just leave it up to the state or the municipalities, whatever you prefer. Mr. Holden, do you have any other questions? I'd like to thank you for testifying and I appreciate your time. You will have clean rivers and I'll guarantee it. They will be clean.

Mr. KANJORSKI. In less than 400 years.

The CHAIRMAN. As long as I am mature enough to catch a trout.

Mr. HOLDEN. We've got great trout fishing in the Lackawanna.

Mr. SHERWOOD. But the interesting thing to me was we had two men here who have spent their careers in economic development and one who has spent his career in environmental concerns and they by and large—they told us the same thing and that's very important.

The CHAIRMAN. Thank you, Gentlemen. Appreciate it very much.

The next panel is Kenneth M. Klemow, Ph.D., Certified Senior Ecologist and Botanist Professor of Biology, Wilkes University; Mr. Alex E. Rogers, the Upper Susquehanna Lackawanna Watershed American Heritage Rivers Initiative, the Pennsylvania GIS Consortium; Mr. Robert Hughes, Eastern Pennsylvania Coalition for Abandoned Mine Reclamation, EPCAMR. Gentlemen, please.

STATEMENT OF KENNETH M. KLEMOW, Ph.D., CERTIFIED SENIOR ECOLOGIST AND BOTANIST, PROFESSOR OF BIOLOGY, WILKES UNIVERSITY

Mr. KLEMOW. My name is Kenneth Klemow, and I am on faculty of Wilkes University. I am an ecologist and a botanist and I teach courses in those areas.

I do want to thank the House Resources Committee for giving me the opportunity to say a few words about the ecological effects of mining, which actually could be a rather complicated topic. I want to try to summarize the high points from the ten page essay that I put together and that's in your packet. I do want to apologize for getting the date wrong on the original draft of the essay. Some of us are still operating, in the past millenium. Regardless, I do refer you to the more complete comments there.

Ecologically, mining has left a profound environmental impact on Northeastern Pennsylvania and in fact one of the reasons why I chose to be an ecologist, being a native of Hazleton, is I wanted to help solve some of these problems. Therefore I especially apppreciate the opportunity to testify at this hearing.

To be fair to the mine operators, most of the mining-related damage that we have occurred before laws protecting the environment were enacted and before the value of natural ecosystems was recognized. Often you hear ecologists railing against mine operators, but the rules were different then. Much of the mining occurred as we were fighting wars, so environmental concerns took a lower priority.

As I note in my essay, the impacts of mining has affected both terrestrial and aquatic ecosystems covering 100,000 to, 120,000 acres, In general the ecological impacts of mining have been to reduce biological diversity and a number of very important ecological functions and values like ecological productivity, water purification, erosion control and sustainability. These are all very important functions that we now no longer have in mine damaged areas. Most of the damage to terrestrial systems—and again I'd like to contrast between terrestrial versus aquatic—has been by the deposition of a stony infertile substrate. That substrate has high concentrations of toxic minerals like iron and aluminum. It also has high acidity, is very poor in holding onto water and during warm summer days, it feels like you're walking on a hot asphalt parking lot. Temperatures can exceed 150 degrees and so imagine if you were a little tiny plant trying to grow in that thing and it's real, real hard. And so because of these stressful conditions, plants have a very difficult time revegetating mine sites. Generally when you go out to these sites you see a very scrubby community composed of low-value species like gray birch, trembling aspen, blackberry and spotted knapweed.

Likewise, animal species are also very relatively sparse in mine-impacted sites because there's just not enough water and food is limited. And as you have heard before, culm banks also create water pollution because they allow rain water to infiltrate thereby getting into the acid bearing rocks.

Mining has also impacted aquatic communities in the form of lakes, creeks, and wetlands and these again are viewed as being critical habitats. I am sure being from Alaska you would be appreciative of that.

Large scale earth moving and deposition of mine land obliterated all these aquatic habitats. And in fact, in many cases—I know that Bernie mentioned this on the last panel—but we have a situation where creeks that drain, mountains, lose flow as they hit the mine lands. The clean water is forced underground and it becomes polluted which is a real big problem.

Another way of looking at the problem is that we have a disconnect between the headwater areas and the lower regions of the watershed, based on recent studies we have done, we have seen that in headwater areas, populations of stream-dwelling species are reduced because of that and that's a problem. Again, we all talked about acid mine drainage and the problems that it causes. In fact, it's interesting because I am doing a watershed assessment with

the USGS streams that are impacted by acid mine drainage are essentially dead with respect to macro in vertebrates—the little bugs that fish use as food.

Well, how do we fix the problem? As far as terrestrial systems go, we can regrade the site, add fertilizer, we can add seeds of grasses and legumes. This leads to a meadow like condition. While I think that's better than a culm bank, I have misgivings about the current methods of reclamation and specifically methods that basically create a meadow. Eastern Pennsylvania is part of the eastern decidous forest, and thus woodland is a more natural ecosystem type. If we do decide to do reclamation for green space, we can't create meadows we must adopt a more smart reclamation technique that I'd be happy to talk about in more detail.

In terms of addressing aquatic situations, there are many things we can do that actually act to work together but we really must adopt an ecological stream restoration approach. Using that approach converts degrading watercourse into natural watercourses. This is being done quite a bit out in the western part of the Country. However not much ecological stream restoration is being done here in the eastern part. I think there's a tremendous potential to do ecological stream restoration in the anthracite fields.

And, again, we talked about treating acid mine drainage by use of constructive wetlands. I've been involved in a couple of projects like that with the earth conservancy. Our second project that I'd be happy to show you, is a wetland that is 97 percent effective in removing 300 pounds of iron per day. That mine drainage treatment project is in Hanover Township in Luzerne County.

To me it's unfortunate that here we are in the Year 2000 and we're still talking about fixing the environmental impact of mining and to implement good reclamation techniques. I think that considerable resources need to be put into this effort.

Also, as Congressman Kanjorski mentioned, we do have to look at the big picture. We can't just simply go on a project-by-project basis. By looking at the big picture, we can actually get rid of the causes and that will allow us to prevent pollution, therefore we don't have to treat as much if we can get to the causes. You've been mentioning that it would take, what, about 400 years to wait for the abandoned mine land fund to reclaim the area. Well, I can tell you that nature can clean it up on its own given 400 to 500 years. I think if you condemn this region to the current level of devastation for centuries, that would be very bad public policy. I think we have the know-how, we have the will, we just need the resources. We can and must do better to do reclamation. And I think, again, that we need to have a collaboration of agency officials, the private sector and local scientists who are interested. I think that once we get everybody working together, we will be able to solve the problem here. So I thank you very much.

The CHAIRMAN. Thank you, Doctor, very much. Alex.

[The prepared statement of Mr. Klemow follows:]

Summary of Comments Regarding the Environmental Impact of Mining in the Anthracite Region

Prepared by Kenneth M. Klemow, Ph.D.
Professor of Biology and GeoEnvironmental Sciences
Wilkes University, Wilkes-Barre, PA 18766
(570) 408-4758 email: kklemow@wilkes.edu

EXHIBIT 14

Prepared for the House Resources Committee Hearing
24 January 2000

Anthracite mining has profoundly impacted over 100,000 acres throughout northeastern and east-central Pennsylvania. Both terrestrial and aquatic ecosystems have been markedly changed by excavation for coal, the deposition of coal waste material, and the influence of mine drainage.

Ecologically, mining has reduced biological diversity and a number of ecological functions and values like productivity, biocomplexity, water purification, erosion control, and sustainability.

The primary impacts to terrestrial systems are due to the removal of the original vegetative cover and soil, and by the deposition of a stony substrate (culm and overburden) that is infertile, has high concentrations of toxic minerals like iron and aluminum, has high acidity, low water retention properties, and extreme summertime temperatures. Often, culm material will burn, liberating additional toxic elements.

Due to those unfavorable physical conditions, revegetation occurs slowly on mined sites. Typically, a sparse community of scrubby species (e.g., gray birch, trembling aspen, blackberry, and spotted knapweed) will form. The lack of food and water also limits the diversity and productivity of animal populations.

Anthracite mining has also devastated thousands of acres of lakes, creeks, and wetlands, which are critical habitats throughout any healthy landscape. Large-scale earthmoving and deposition of mine spoil obliterated all types of aquatic habitat. In many cases, creekbeds were either rerouted, or their paths were blocked, forcing water down into the mines. As a result, headwaters that contain clean water and otherwise high quality ecosystems are isolated from lower reaches of the watershed, leading to a reduction in food chain support in the headwater areas.

Mining also causes an impact on water quality in the form of acid mine drainage (AMD), which is characterized by high concentrations of iron or aluminum in groundwater and stream flow that precipitate and coat the bottom of stream channels. AMD forms when otherwise clean water contacts acid bearing minerals in culm banks or underground mine voids. Accumulated iron especially kills aquatic vertebrates and invertebrates, resulting in stream ecosystems that are essentially dead.

Mine-impacted sites can be reclaimed. Terrestrial systems are typically improved by regrading the site and adding fertilizer and seed, leading to a meadow-like condition. While certainly better than having culm bank, that method can be improved by tailoring reclamation to the ultimate use of the land, and by promoting the development of a sustainable forested community.

Impacted aquatic communities can be addressed by implemented recently developed ecological restoration techniques that focus on creating natural creek morphologies and use bioengineered materials. AMD can be ameliorated by use of passive techniques like wetlands.

Restoring mine-impacted areas in eastern Pennsylvania will require the best collaborative thinking by a diverse array of federal and state agencies, scientists, and the private sector. Sufficient funding will be needed to carry out the needed assessments and designs, move earth, and import the needed materials. Doing otherwise will keep the area environmentally devastated for centuries.

Environmental Effects of Mining in the Anthracite Region: Problems and Possible Solutions

Presented to the US House of Representatives Committee on Resources

Kenneth M. Klemow, Ph.D. Certified Senior Ecologist and Botanist
Wilkes University, Wilkes-Barre, PA 18766

Phone: 570-408-4758. FAX: 570-408-7862, e-mail: kklemow@wilkes.edu

19 January 2000

Summary

The extraction and processing of anthracite coal caused an enormous environmental impact to nearly 100,000 acres of terrestrial and aquatic habitat throughout northeastern and east-central Pennsylvania. Original terrestrial forests were destroyed by strip mining and the deposition of culm material. Due to those activities, thousands of acres are marred by steep slopes and coarse substrates characterized by low fertility, toxic levels of certain elements, extreme drought, and high summertime temperatures. Natural revegetation has proceeded slowly on mine-impacted sites, resulting in sparse communities of low-value scrubby species. Ecological productivity, biological diversity, and recreation values are substantially lower on mined sites than on forested unmined areas. Animal life is also impaired due to insufficient food and water, and to extreme physical conditions.

Anthracite mining has also damaged aquatic communities like streams and wetlands. Mining caused physical loss to stream channel habitat and created acid mine drainage (AMD). Mining often isolates headwater streams from lower reaches in the watershed, leading to losses of biological diversity and productivity. The loss of wetlands by mining exacerbates downstream flooding, degrades the capacity for natural water filtration, and reduces biological diversity among wetland-dependent species. Millions of gallons of AMD enters waterways throughout the region, causing concentrations of dissolved iron, aluminum, and sulfate to exceed the tolerances of aquatic species. That AMD flows into major rivers like the Susquehanna and Lackawanna, contributing thousands of pounds of iron per day that coats the bed and migrates toward the Chesapeake Bay.

Corrective measures can be taken to address the ecological damage of mining. The methodologies employed are improving thanks to new research findings. Terrestrial reclamation typically involves regrading and fertilizing the site, and adding a mix of plant seeds, usually of grasses and legumes. The result is a meadow-like community that prevents erosion and can be used as pasture. However, that approach may prevent the formation of natural forests and may not be sustainable in the long run. A new reclamation paradigm may be needed to tailor restoration to the ultimate use of the site, and to encourage native woody species on those sites targeted for greenspace.

Mining-related damage to aquatic communities can also be corrected. Stream channels should be restored following newly developed ecological approaches that keep water on the surface, maximize biological diversity, and provide a continuous corridor connecting headwaters to major rivers. AMD can be ameliorated by use of passive approaches (wetlands, anoxic limestone drains) and by preventing its formation through stream channel restoration, reclamation of culm banks, and possibly injecting materials like fly ash into underground mine voids.

Solving the environmental problems of mining will require the collaboration of federal and state agency officials, scientists, and the private sector. Sufficient funding will be needed to pay for the expertise, labor, and materials needed to develop and execute a successful plan. The American Heritage River initiative should play a central role in coordinating the effort and securing funding.

Introduction

Over the past 150 years, large parts of northeastern and east-central Pennsylvania have been affected by mining for anthracite coal. Mining practices have profoundly influenced the economy, social structure, politics, physical landscape, and natural ecology of the affected regions. My testimony given in this essay will largely focus on the environmental impacts, including the effect on the landscape and ecological relationships. Economic and social impacts will be mentioned only briefly. Comments about restoration strategies and needs will be provided at the end.

Understanding the impacts of coal mining requires a general knowledge of the geologic history of eastern Pennsylvania. Virtually all of the bedrock of northeastern and east-central Pennsylvania originated 300-360 million years ago, when the state was covered by a huge sea. Fine rock particles settled and formed sedimentary deposits of sandstone and shale. However, certain areas were dominated by swamp forests. Individual plants did not decompose when they died, but instead they underwent a chemical change, forming vast coal deposits. Those deposits became buried by additional sedimentation, often forming alternating layers of coal and non-coal sedimentary rock. The coal forming process was most prevalent in certain parts of eastern Pennsylvania, forming four major coal fields separated by areas that lack anthracite.

Subsequently, a series of geologic events involving mountain formation, erosion, and glaciation produced the current ridge-and-valley topography of the region. Following the recession of the most recent glacier 12,000 years ago, eastern Pennsylvania became vegetated by a lush forest composed of evergreens like white pine and hemlock, and by hardwoods like oaks, chestnut, birch, maple, and ash. Beginning 250 years ago, the original forest was cleared for timber and agriculture by white settlers. Thousands of acres remain in agriculture or have become urbanized. However, large areas have reverted back to natural forest. Such lands are ecologically sound, supporting diverse, productive terrestrial and aquatic ecosystems. Our forests are valuable for recreation, timber management, and watershed uses.

The Mining Procedure and Its General Ecological Impacts

Vast areas of eastern Pennsylvania underlain by anthracite deposits were greatly influenced by the extraction and processing of coal during the past 150 years. The US Department of Agriculture lists approximately 51,000 acres (ca. 80 square miles) of soils as being mine-impacted in Luzerne and Lackawanna counties alone. Information from the Bureau of Abandoned Mineland Reclamation of the Department of Environmental Protection places the extent of impact at 98,000 acres.

The successful removal of coal required that it be extracted from intervening layers of sandstone and shale. Historically, two methods were used to extract coal: underground mining and strip (surface) mining. Underground mining typically followed seams of coal downward, producing vertical shafts and horizontally arranged tunnels that often extended for miles. In contrast, strip mining involved the use of large shovels and draglines to physically remove the overburden, thus exposing the coal seams. Once removed, the raw coal was separated from energy-poor "culm" material having high concentrations of silica, iron, and sulfur.

Regardless of the extraction method, anthracite mining has had huge environmental effects that can be classified in several ways. First, one can distinguish between aboveground and belowground effects. Second, mining caused physical damage to the landscape, as well as impacts to the original flora and fauna. Finally, the environmental effects can also be classified by effects on terrestrial vs aquatic ecosystems, though in many instances the former contributes to the latter.

Because most of the activity was well below the surface, the actual removal of coal by underground mining did not have much environmental effect. As will be noted later, however, it did produce secondary effects, especially to water quality. In contrast, strip mining has had a profound impact on the local terrain because of the creation of huge depressions (stripping pits), nearly vertical highwalls, and high mounds of accumulated overburden material.

Whether removed by underground or strip mining, purifying the anthracite created additional impacts on the landscape. One type of impact involved the creation of mounds of coal waste in the form of culm banks (also called gob or bony). Such banks typically contain rock fragments often 0.5-2' in diameter that are rich in carbon, iron, and sulfur. Some of the larger banks are 200' high and occupy hundreds of acres.

Preparation of coal for market also involved washing, breaking, and sorting coal pieces of various sizes. That process resulted in the creation of small coal fragments, often less than 0.5" in diameter, having low commercial value. Those fine coal fragments were separated from the larger, more valuable pieces of coal by settling, creating deposits of "mine wash" that were allowed to develop in sedimentation basins. Mine wash was often removed from the basins and spread over adjoining areas. In other instances, mine wash particles were carried downstream as wash water was released from impoundments.

Thus, the mining process left a significant percentage of northeastern Pennsylvania covered by gaping pits, huge mounds of coarse material, and sterile deposits of mine wash. The mining process created profound disruptions to the natural ecosystems in which they occurred. As noted, the ecological effects have both terrestrial and aquatic components.

Effects of Mining on Terrestrial Ecosystems

Anthracite mining has devastated tens of thousands of acres of terrestrial ecosystems in eastern Pennsylvania. Strip mining especially caused the removal of the original vegetation and all soils on the site. The result was a barren landscape covered by a coarse substrate, often with steep slopes. In some cases, those culm banks caught fire, producing even more hazardous and stressful conditions. Unlike unmined sites that can recover relatively quickly after clearing, revegetation on strip mined sites occurs slowly. It is not uncommon to see 50-80 year old culm banks that are essentially barren.

A combination of physical and biological factors interact to restrict the rate of natural revegetation on abandoned anthracite mines. Severe substrate conditions are perhaps the greatest problem, on both burned and unburned areas. Studies conducted over the past several decades have documented that sites underlain by culm, ash, and mine-wash have low concentrations of important nutrients like nitrate, phosphate, calcium, and potassium. Moreover, they often have toxic levels of iron and aluminum. The coarse substrate on culm banks does not retain water, resulting in drought-prone conditions that often rival the most severe deserts on the planet. The black substrate also absorbs solar energy and converts it to heat, resulting in summertime surface temperatures that exceed 150°F.

A variety on biological factors also limit revegetation on mined sites, and these act in subtle ways that are still being discovered by ongoing research. Certainly, fresh culm and mine-wash lack seeds or rootstocks that would serve as a source of new plants. Instead, vegetation development must depend on the fortuitous immigration of seeds from plants growing off-site. In the case of large culm banks, the nearest source of seeds might be a quarter of a mile away. Moreover, those seeds must successfully germinate and produce established seedlings, which is difficult in the highly unfavorable

thermal, chemical, and moisture environments of culm and mine wash.

Research conducted in the past several decades has shown that mine-derived soils lack a healthy population of soil microbes, including fungi, bacteria, and invertebrates. Plants on strip mines cannot form associations with certain soil fungi that normally serve as a feeder system for critical nutrients and water. Moreover, the lack of fungi and many types of bacteria and invertebrates prevent normal recycling of nutrients within the soil, further impairing fertility.

The vegetation that does develop on mined sites in eastern Pennsylvania is very different from that on unmined sites. Culm banks especially bear a mix of scrubby growth having much lower stature than more favorable off-mine sites. Mineland vegetation rarely exceeds thirty feet in height, in sharp contrast to maturing forests that often exceed 100'. Species composition is also rather distinctive in that the dominant woody species on mined sites include invasive species that have low commercial value like gray birch, black locust, and trembling aspen. More valuable oaks, maples, hickories, ashes, and hemlocks are rare on mined sites. The understory of mined sites is also rather poorly developed, being composed of prickly shrubs like tall blackberry and multiflora rose, as well as weedy, alien herbs like spotted knapweed, switchgrass, and white sweet clover.

Functionally, the vegetation that develops on mined sites has several characteristics that are indicative of an unhealthy system. First, the level of species diversity is lower than that of unmined sites, making mineland vegetation relatively unstable. Second, the vegetation has low level of productivity, measured by the relative inability to capture energy and pass it to higher trophic levels. Third, the vegetation is composed of species that cannot generally reproduce in its own shade, and thus may not be sustainable. Fourth, the stressful physical conditions on mined sites make the component species more susceptible to disease. For example, trembling aspen trees on stressful sites are often damaged by hypoxylon canker while those on unstressed sites resist that fungal disease. Finally, mineland woods do not provide much soil stabilization, oxygen production, or water purification, which are important functions normally associated with natural forested ecosystems.

Animal populations, including both game and non-game species, are also severely restricted on mined sites. The scrubby vegetation characterized by high densities of prickly shrubs, confers poor habitat for species normally accustomed to shaded or grassland conditions in Pennsylvania. Also, the lack of moisture and extreme thermal conditions excludes most species except for a few snakes, spiders, and tolerant insect species. Mine-land vegetation is often unpalatable and has relatively low nutritive value for grazing animals.

Effects of Mining on Aquatic Ecosystems

Mining has had a profound impact on aquatic ecosystems like wetlands, creeks, and lakes of northeastern Pennsylvania. Such ecosystems are extremely valuable from both ecological and recreational perspectives. Communities that develop in aquatic ecosystems are typically composed of microscopic species, larger invertebrates like caddisflies and stoneflies, and vertebrates like fish and amphibians. Those organisms interact in complex ways, and play crucial roles in nutrient turnover and energy processing. An important property of aquatic ecosystems is that they are interconnected by the flow of water downstream. Thus, energy and nutrients received by small creeks and wetlands high in the watershed are often used by populations of commercially important finfish and shellfish in downstream rivers and estuaries.

Effects of mining on aquatic resources are both physical and chemical in nature. Most of earthmoving activities of mining occurred well before the enactment of laws designed to protect aquatic resources - particularly the 1977 Federal Water Pollution Control Act. Strip mining and the

aquatic resources - particularly the 1977 Federal Water Pollution Control Act. Strip mining and the deposition of culm material occurred without any regard to wetlands, watercourses, and other waterbodies. Thus, miles of stream channel habitat and many hundreds of acres of wetland in the anthracite areas have been destroyed by indiscriminate digging and filling. One prime example of such destruction can be seen in the Nanticoke Creek corridor in central Luzerne County. There, the normal course of water that drains the unmined upper slopes of Wilkes-Barre Mountain is blocked by a huge culm bank complex near Warrior Run. As a result, the headwaters of Nanticoke Creek are completely isolated from the lower reaches of that creek, and ultimately the Susquehanna River. Results from preliminary studies indicate that biological diversity and food chain support are lower than expected in the Nanticoke Creek headwaters, compared to similar creeks that are directly connected to lower reaches of their watershed.

In many places where streams flow through mine impacted areas, the fractured bedrock allows surface streamflow to seep underground. That loss of water is directly opposite to the typical gain in flow as one proceeds to lower positions in watersheds not impacted by mining. As will be noted shortly, that "lost" water is only temporarily hidden from view. Instead, the water resurfaces further down the watershed, often in a highly contaminated form.

Even if not completely obliterated, stream channels are often altered and degraded on mined sites. Studies of stream channel morphology on mined sites show that creeks there have unusually steep banks composed of unstable material. That morphology is highly unfavorable during floods because it causes unacceptably high levels of erosion, and because it often exacerbates downstream flooding. Siltation of creeks lower in the watershed is especially problematic because many valuable stream invertebrate species cannot tolerate sediment deposition.

The loss of wetlands in mined areas is another source of concern. Wetlands have many environmental benefits and enjoy the protection of federal and state laws. Wetland soils are typically porous and absorb water during periods of heavy precipitation, therefore reducing the severity of downstream flooding. Wetlands also act as excellent natural water purifiers because they trap suspended sediments and remove dissolved pollutants like nitrates, phosphates, and heavy metals. Wetlands also provide habitat to plants and animals. In that context, wetlands serve as spawning and rearing sites for fish and amphibians, breeding locations for many birds, and locations for food chain support for dozens of mammal species. The loss of wetlands due to mining activities has led to dirtier water downstream, exacerbated flooding in some cases, and a regional loss of biological diversity and ecological productivity.

Concurrent with the loss of healthy aquatic habitat, mining has created two types of unproductive open-water conditions: stripping-pit pools and sedimentation lagoons. The former are bodies of open water that develop in strip mine operations, where the excavated pit intercepts the prevailing water table. These inadvertent, artificial lakes are characterized by steep walls and depths that exceed 30'. Aside from the inherent danger that they pose, stripping-pit pools have low ecological productivity because they are typically isolated from other aquatic habitats, and because their water often contains pollutants that cannot support life. Sedimentation lagoons are natural or artificial bodies of water that are found near old mining operations. They functioned as settling basins to clarify water used to wash coal. As a result, the substrate of such lagoons is composed of deposits of fine-grained mine-wash. Such deposits are infertile and often contain high concentrations of toxic elements. Therefore, sedimentation lagoons are typically lifeless, save a few very hardy species of low ecological value.

Perhaps the best known effect of mining on aquatic ecosystems comes in the form of acid mine drainage (AMD). AMD is characterized by the presence of inorganic elements like iron, manganese, aluminum, and sulfates that are carried by water discharging from culm banks or mine voids. The chemistry of AMD has been well studied, especially in the bituminous coal fields of western

Pennsylvania and southern Appalachia. The AMD problem in the anthracite fields has received some attention between 1940 and 1985, but work done in the 1990s has both increased our understanding of the pattern of AMD effects and trends in water quality over the last 40 years.

AMD forms when water intercepts underground pyrite or aluminum-bearing deposits, and leaches harmful substances from those deposits. In some cases, AMD is generated when rainwater or snowmelt enters into culm banks, and dissolves the iron-rich coal waste material. In other cases, AMD forms when the water table contacts residual pyrite in underground mine workings, and then flows to the surface. AMD normally enters creeks in two ways. The first is in the form of seeps that often discharge from the bases of culm banks. Such seeps are rarely exceed 50 gallons per minute, but often contain high concentrations of dissolved metals and sulfates. The second is in the form of deep mine outfalls that often spew thousands of gallons of mine water per minute into receiving waterbodies. Such outfalls exist at the points of old mine shafts or ventilation holes, but some are actually boreholes that were intentionally excavated to relieve underground flooding. Some of the worst mine outfalls in the anthracite region include the Jeddo mine tunnel northwest of Hazleton, the old Newport Dump west of Nanticoke, the Solomon's Creek boreholes south of Wilkes-Barre, the Butler mine tunnel in Pittston, and the Old Forge discharge south of Scranton.

AMD impairs the ecological productivity in receiving waterbodies in several ways. First, the dissolved iron undergoes a series of chemical reactions that lead to the formation of insoluble iron hydroxide, which is really liquid rust. Iron hydroxide particles coagulate in the water, staining the water bright orange. Over time, those particles settle onto the creekbed forming deposits known as "yellow boy." The cloudy water and accumulated deposits create conditions harmful to all forms of aquatic life. Indeed, studies recently done in the southern Wyoming Valley indicate that AMD-impacted streams are completely devoid of invertebrates and fish life. In the middle and southern anthracite fields, dissolved aluminum and low pH conditions typify the AMD problems. Dissolved aluminum presents a problem to aquatic animals because it collects on gills, thus rendering them incapable of gas exchange. Low pH levels, indicative of high acidity loads, also impair the functioning of all forms of life because they disrupt normal cellular metabolism.

Because it enters into creeks and streams, AMD is normally carried downstream to receiving rivers, thus impairing their function. In the northern anthracite field of the Wyoming and Lackawanna Valleys, AMD is ultimately received by the Susquehanna and Lackawanna Rivers. The effect of AMD on the Susquehanna-Lackawanna complex is really unknown and deserves intensive study. Spot analyses indicate that water quality in those rivers is at least impaired at points of entry and for some distance downstream. Indications of that impairment are obvious at the discharge of the Old Forge borehole into the Lackawanna River, the confluence of the Lackawanna and Susquehanna Rivers, and where Solomon's Creek, Nanticoke Creek, and Newport Creek all enter the Susquehanna. At those places, the riverbed is heavily stained by deposits of iron hydroxide. The nature of accumulation of those iron deposits, and their transport downriver are unknown and need further investigation. Moreover, the effects of mine drainage on invertebrates and fish in the river are also unknown. While numerous species of both types of aquatic life are found, biodiversity and productivity are probably both impaired to some degree by discharges of contaminated mine water from outfalls and creeks that receive AMD.

Remedying the Ecological Effects of Mining

As with most problems, the environmental degradation caused by mining can be rectified. One can classify such remedies by whether they fix terrestrial vs aquatic ecosystems. Many approaches to fixing mining-related problems are based on straightforward methods that are decades old. However, novel approaches have been developed within the past twenty years, largely drawing from the new

novel approaches have been developed within the past twenty years, largely drawing from the new discipline of Restoration Ecology. Those new approaches have been used to a limited degree in remedying environmental problems within the anthracite region. Much more can be done to implement that new knowledge and to discover even better approaches in the future.

In terms of terrestrial ecosystems, successful restoration depends upon improving the physical environment and introducing plant stock to enhance the rate at which vegetation can develop. Improving the physical environment for plant growth typically involves regrading the disturbed landscape to eliminate highly erodable steep slopes, and improving the soil by the adding fertilizers and organic mulch. Plant stock is usually added by seeding the area with species tolerant of reclaimed mine sites, and able to form a dense vegetative cover quickly.

When they are implemented, mine reclamation practices generally follow the guidelines given in the 1977 Surface Mining Control and Reclamation Act (SMCRA). In essence, that legislation mandates that mine reclamation is accomplished when the mined site is regraded to a topographic contour that approximates the original conditions, and a dense cover of vegetation is established. Reclamation specialists satisfy the requirements of SMCRA by first bulldozing the disturbed area to a smooth contour having uniform grades. A fertilizer containing nitrogen, phosphorous, potassium and lime is then added. Finally, the area is seeded, typically by a grass-legume mix. Those practices usually create a meadow-like stand of vegetation that protects against erosion and can even by used as pastureland.

Because the environmental damage caused by mining in the anthracite region occurred long before the implementation of SMCRA, reclamation is mostly conducted by governmental agencies. The most active agency involved in mine reclamation is the Bureau of Abandoned Mine Reclamation (BAMR), of the Pennsylvania Department of Environmental Protection (PADEP). In the northern anthracite field, the Earth Conservancy (EC) is also engaged in reclamation efforts on its land holdings.

While the efforts to reclaim mine lands according the SMCRA guidelines do improve their ecological productivity, some concern has been expressed over the long-term effects of current reclamation practices. Specifically, the grass-legume mixture introduced as a vegetative cover is viewed as being artificial because it uses alien species not really belonging to the native flora of Pennsylvania. Also, the meadow-like vegetation may actually hamper the development of a forest community that is normal for eastern Pennsylvania. In short, reclaimed sites may remain in an arrested state of ecological development, and might not be sustainable over the course of decades. As an alternative, some restoration ecologists are calling for an alternate "smart" reclamation strategy that involves rough-grading the site, and introducing native species that will ultimately be consistent with the development of forest conditions. The feasibility of using that "smart" approach to reclaim abandoned mined sites in the anthracite region deserves to be explored.

Efforts to reclaim impaired aquatic habitats have also been conducted in the anthracite area, but the practices employed are evolving as new knowledge becomes available. Restoration of aquatic habitats is aimed at promoting healthy streams, lakes, and wetlands with high ecological productivity and biological diversity. To accomplish that goal, attention must be devoted to restoring the both the physical conditions and chemical makeup of local waterways.

Historically, addressing chemical contamination in the form of acid mine drainage often meant adding additional chemicals, such as lime or caustic soda. The aim was to neutralize the acidity and quickly precipitate the heavy metals. While generally effective, adding neutralizing chemicals to AMD can be costly and dangerous.

During the past fifteen years, passive approaches to addressing AMD have been developed. Such approaches involve technologies such as the use of constructed wetlands, anoxic limestone drains, and sequential alkalinity producing systems (SAPS). Often, those technologies are combined in a given project. The goal is to raise the level of alkalinity of the water and promote the oxidation and removal of heavy metals, particularly iron, manganese, and aluminum, in a controlled location.

One of the first AMD-treatment wetlands in the anthracite region was constructed by the Earth Conservancy in Hanover Township, Luzerne County. Completed in 1996, it treats a large seep that enters into Espy Run, a tributary of Nanticoke Creek. Based upon the success of that wetland, the EC constructed a 2.2 acre wetland to treat mine water discharging from the Dundee Outfall, 0.7 miles from the original wetland. That second wetland utilizes a novel water aeration system to promote iron oxidation, and began working in May 1999. Analyses of that system's performance indicate that it removes over 95% of the iron in the water, exceeding 300 lbs per day.

Further implementation of constructed wetland technology is possible. However, it should not be viewed as the total solution to the AMD problem, largely because not enough land is available for wetland construction. Instead, fixing the AMD problem will probably require the elimination of root causes of mine drainage. In one sense, the removal of culm banks and the implementation of sound reclamation techniques in terrestrial mine-impacted sites should reduce the infiltration of rainwater and snowmelt into pyrite-bearing rock strata. Second, mine voids can be filled with various materials like fly ash, as done in West Virginia. Filling mine voids reduces the flow of mine water from normal discharge points, but should be used with care, especially if done in populated or industrial areas.

A third, highly promising approach to eliminating the formation of AMD is to restore normal creekbed conditions in abandoned minelands. Because many creeks in minelands often lose water to underground mine pools making them impermeable to water loss is an attractive option. The idea of lining creekbeds with impermeable material is not entirely new. Indeed, coal companies often enclosed watercourses in flumes to prevent seepage into inactive mines. However, such structures often deteriorated and failed over time. The confinement of watercourses in smooth-walled flumes also prevents a productive aquatic community from forming.

Within the past ten years, new techniques have been developed to restore stream channels following ecologically sound principles. First, channels are constructed to mimic the horizontal morphology of natural watercourses, specifically by using a "channel within a channel" design. That morphology allows the channel to accommodate wide ranges of flow conditions from low volume baseflows to periodic floods. Second, the new designs provide for the development of pools and riffles that create the diversity of habitats needed by the array of invertebrates and vertebrates found in healthy aquatic ecosystems. Third, the materials used to form the bed and banks of newly restored stream channels are selected to mimic natural conditions and promote high levels of biological diversity. For example, new approaches abandon the use of conventional rip-rap and concrete in favor of "bioengineering" materials like layered shrubs and carefully oriented tree trunks. Finally, wooded buffer zones are placed along the sides of creeks because they provide both organic matter to feed aquatic invertebrates, as well as shade in reducing extreme summertime temperatures.

The result of a successful stream restoration effort has the dual benefit of keeping otherwise clean water on the surface, thus preventing the formation of AMD, and providing a biologically rich corridor that effectively links headwaters to lower reaches of the watershed. A well designed stream corridor also has recreational benefits for hiking, mountain biking, and horseback riding.

To date, a ecological stream restoration effort has been conducted near Hazleton by BAMR. A proposal to develop an even more comprehensive restoration effort along the Nanticoke Creek headwaters in central Luzerne County has been submitted by the US Army Corps of Engineers.

Clearly, however, many miles of degraded streams and other aquatic habitats exist in the anthracite region, and deserve to be restored.

Conclusions and Recommendations

Two centuries of anthracite mining have severely degraded the ecological conditions in large portions of eastern Pennsylvania. Most of the impact has been to terrestrial ecosystems, in that the excavation of stripping pits and the deposition of culm banks have converted an otherwise healthy forest ecosystem into a barren landscape, vegetated by a sparse scrubland of low-value, often non-native, species. The region's aquatic resources in the form of streams, lakes, and wetlands, have also been greatly degraded by mining. Some of the destruction has been in the form of losses to original bodies of water. Other degradation is in the form of the discharge of millions of gallons of acid mine drainage each day into local creeks, and ultimately into major waterbodies like the Susquehanna and Lackawanna Rivers. As a result, the creeks are biologically dead, and the Susquehanna-Lackawanna complex shows impairment. The mining problems are interconnected in that AMD is caused by precipitation infiltrating through culm banks, by losses of streamflow in regions of degraded watercourses, and by the contact of groundwater with residual pyrite deposits in underground mine voids.

Aside from inherent losses to biological productivity and biodiversity, the damage inflicted by past mining has both sociopolitical and economic liabilities. Mined sites are viewed as being wastelands, and their drab dark-gray appearance contributes to a general feeling of despair and negativity felt by many residents. The presence of culm banks, huge stripping pits, and streams colored orange by mine drainage detracts from a sense of community pride and a land ethic. Indeed, as a building with a broken window invites further vandalism, mine lands often receive the brunt of illegal dumping by local residents.

In economic terms, abandoned mine lands have direct costs in that they are unproductive for agriculture and often unsuitable for residential or commercial development. Thus, they have inherently low property values, and usually generate far less tax revenue than unmined sites. Far more insidious is that fact that corporate officials looking to relocate companies in the anthracite region are often deterred by the residual environmental destruction. As a result, economic development within the region has seriously lagged behind that of other areas of the country.

Clearly, a large-scale initiative is needed to restore abandoned minelands. Since the problems took decades to create, they will not be solved overnight. Nor will the solutions be cheap, because the impact is dispersed over hundreds of square miles, and restoration will involve moving millions of tons of materials to regrade culm banks and fill stripping pits. Also, amending the soil to make it suitable for plant growth, adding appropriate plant stock, and restoring degraded stream channels will require enormous expenditures in terms of manpower, equipment, and materials.

Restoring the anthracite fields must be done in a way that maximizes the long term sustainability of the effort. In some cases, that will require abandoning current approaches, and adopting "smart" reclamation techniques that take the ultimate use of the site into account. For example, a site that is likely to be reclaimed for industrial development should not be treated the same way as a site intended for open space. Smart reclamation techniques will require thoughtful planning, ideally linking new Geographical Information System technologies with careful analysis of in-field conditions.

The American Heritage River initiative and associated Anthracite Task Force are ideal entities in which the current piecemeal approach can be organized into a well conceived, integrated strategy for successful, sustainable ecological reclamation. Clearly, no single organization or governmental

successful, sustainable ecological reclamation. Clearly, no single organization or governmental agency can heal the environmental devastation caused by mining. Instead, an adequately funded, well conceived, integrated effort involving federal and state agencies, local scientists, the private sector, and existing and new non-profit organizations must be initiated to really fix the problem for the betterment of the region, the state, and the nation.

STATEMENT OF ALEX E. ROGERS, THE UPPER SUSQUEHANNA-LACKAWANNA WATERSHED AMERICAN HERITAGE RIVERS INITIATIVE, AND THE PENNSYLVANIA GIS CONSORTIUM

Mr. ROGERS. Mr. Chairman, good afternoon and thankyou to all the Members here for including me in this group of witnesses. I am here today on behalf of the local American Heritage Rivers Initiative steering committee, and the Pennsylvania GIS Consortium, which is a nonprofit organization jointly administered by two colleges in this area and that is working on issues that Ken talked about with respect to the big picture. I want to tell you a little bit about the big picture that we're working on.

I understand the American Heritage Rivers Initiative has some controversy associated with it with respect to the authorization or initiation of the project but I want to tell you, Mr. Chairman, and other Members of the Committee, that the program has had a tremendously valuable effect here locally in this region. What it has done is brought together communities and environmental groups.

Congressman Sherwood you mentioned this, the chamber of commerce sits at the same table now with environmental groups and also at that table are county leaders up here in Lackawanna County, county leaders in Luzerne and then down to Congressman Holden's district. What this program has done on the local level is bring people together to talk about a common challenge that—no words could say it more eloquently than the tour you took today that those black mountains of coal waste that you saw—they're not only the unfortunate tombstones of the anthracite mining industry that largely doesn't exist, but they are truly the barriers that stand between today's environmental and economic problems here in the region and I think tomorrow's healthier and more robust Northeastern Pennsylvania.

Who have you heard from today? You've heard from local residents who live adjacent to these piles. You saw this morning how closely those abandoned mine sites are to communities. It is strangling these communities. They cannot grow. It is isolating them and it has, I think, as Congressman Kanjorski said, a tremendous effect on the psychology of the area.

Who else have you heard from? You've heard from business groups that have told you that they lose prospective companies who look at the area and turn away as fast as they got here and you heard from the Federal and state administrators of programs. It is a sad state that 23 years into this Federal program the OSM, as they testified today, has cleaned up less than one-tenth of the problems.

What's the effect on the local economy? I want to talk about several things. First, we have a dwindling supply of flatland and clean water. As an earlier witness said, if we don't clean these abandoned mine sites and get them compacted so that businesses can locate there, we're going to destroy the few pristine sites that still exist.

What else? Population loss, I think Congressman Kanjorski talked about this. This area—this region——is virtually leading the Nation in population decline. From 1990 to 1998, this metropolitan statistical area lost more than 23,000 people. That's a 3.6 percent decline. Of all of the MSA's nationwide, this one experienced the

third largest population decline and that's on top of population decline that existed years before. Our local groups have tracked it. Between 1930 and 1970, our population reduction was 30 percent and then between 1970 and 1980, we lost more.

What else? We have higher unemployment levels. To be sure, we have made significant progress in bringing unemployment levels down but we have been consistently above the national and state average and I think one of the reasons for that is what you saw today.

So what can we do to mend this region's land and water? I talked about the regional cooperation. We are starting with an environmental master plan and I brought for you today just a quick poster that will provide a snapshop of some of the things we're doing. Congressman Kanjorski has been the leader in bringing together groups in the area to provide a master plan, a GIS environmental master plan, of the entire anthracite region. Thanks to his leadership, we have scientists like Ken and others, through this Pennsylvania GIS Consortium that I've talked about, who are studying all of the topography, the hydrology, the population concentration of the entire region. What that means is if this Committee and this Congress are successful in freeing money for this region, we're going to know how to spend it in the most cost-effective and sensible way.

People have made reference to the Chesapeake Bay. I just want to draw your attention to the right side of this poster. You can see clearly that the anthracite region in green flows right into the Susquehanna and then right down into the Chesapeake Bay. Today, as with every day in Northeastern Pennsylvania, 200 million gallons of acid mine drainage will flow from this region's mountains and strip-mine holes into the Susquehanna River. And today, as with every day in this region, this drainage will contain 740 tons of sulfate and 51 tons of iron and that's why today, as with every day, our region is the single largest industrial, polluter of the Chesapeake Bay.

But we're going to have this GIS environmental study done very quickly so that we don't have just another fancy study to sit on a shelf, but we have a blueprint for how best to invest the Federal money that we hope or the private sector money that we hope is freed up for this area. And we will know, instead of the patchwork problems that we've been able to address today, how doing work in one area will effect the entire region. We will develop priorities and we will have the most sophisticated technology available to make informed decisions about investing this money. So I appreciate your attention to this problem and thank you for the invitation to appear.

The CHAIRMAN. Thank you, Alex. Robert.

[The prepared statement of Mr. Rogers follows:]

TESTIMONY OF ALEX E. ROGERS

THE UPPER SUSQUEHANNA-LACKAWANNA WATERSHED
AMERICAN HERITAGE RIVERS INITIATIVE
7 North Wilkes-Barre Boulevard, Suite 432 M
Wilkes-Barre, Pa. 18702
Phone: (570) 970-2840
Fax: (570) 970-7941
E-mail: arogers@epix.net

&

THE PENNSYLVANIA GIS CONSORTIUM
Wilkes-Barre, PA

TO

U.S. HOUSE OF REPRESENTATIVES

COMMITTEE ON RESOURCES

OVERSIGHT HEARING ON THE ABANDONED MINE RECLAMATION NEEDS OF THE PENNSYLVANIA ANTHRACITE FIELDS

JANUARY 24, 2000

REDINGTON HALL
UNIVERSITY OF SCRANTON
SCRANTON, PENNSYLVANIA

PENGAD-Bayonne, N. J.
EXHIBIT
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Good afternoon, Mr. Chairman, members of the Committee and Congressmen Kanjorski and Holden. My name is Alex Rogers and I am pleased to appear today on behalf of two local groups that have worked tirelessly on the abandoned mine reclamation needs of the Pennsylvania Anthracite Fields – the Steering Committee for the Upper Susquehanna-Lackawanna Watershed American Heritage Rivers Initiative and the Pennsylvania GIS Consortium, a non-profit organization jointly administered by Wilkes University and King's College, and based in Wilkes-Barre, Pennsylvania.

Thank you for the opportunity to testify here today and thank you for your interest in the environmental and economic health of Northeastern Pennsylvania.

The Devastating Environmental Effects of Decades of Unregulated Mining

Just a few weeks ago, this nation celebrated the completion of the 20th Century, which Henry Luce and others have aptly called America's Century. It was indeed America's Century and we can be proud of many national achievements – the spread of our free-market democracy across the globe, major advances in science and medicine, giant innovations in technology, and an economy that charges forward to new heights with each technological advancement.

But as we stand at the gateway to the 21st Century, we face important challenges that demand prompt and thoughtful attention. And as we reflect on how far we've come and where we hope to be one hundred years from now, we should seize this opportunity to consider new ways to solve pressing environmental and economic problems in regions of the country that have not enjoyed the robust growth and prosperity in recent years.

Here in Northeastern Pennsylvania, we face a critical challenge that has economic, environmental and social implications: repairing our land and water from the devastating effects of unregulated anthracite coal mining that took place decades ago. When this nation stood at the gateway to the 20th Century, it was anthracite coal – and the hundreds of thousands of anthracite mine workers in this region -- that fueled the industrial revolution and helped make America the industrial capital of the world. But today, in the dawn of the 21st Century, we ask for – and need – help in return. We need the federal government to help us repair the devastating environmental consequences of anthracite mining. Cleaning the region's environment will lift the local economy and quality of life.

It is bad enough that countless mineworkers lost their lives in the mines and worked under deplorable conditions. But it is even worse that the descendants of this region's mineworkers still have much to be saddened about – the region's environment and economy are still hampered and scarred, decades later, by the thousands of acres of damaged and abandoned mine land that dot the landscape. Today – as with every day in Northeastern Pennsylvania – more than 200 million gallons of acid mine drainage will flow from this region's mountains and strip-mined holes into the Susquehanna River Basin. And today – as with every day – this acid mine drainage will contain 740 tons of

sulfate and 51 tons of iron. And today – as with every other day – the Susquehanna River will flow into the Chesapeake Bay. Not surprisingly, EPA has concluded that this acid mine drainage from Northeastern Pennsylvania is the single largest source of industrial pollution in the Chesapeake Bay.

If our nation has the technology to broadcast this hearing live by satellite to a television set or computer monitor in any corner of the world, then surely we have the capability to clean Northeastern Pennsylvania's land and water.

The Scars of Anthracite Mining -- A $2 Billion Repair Bill

The Office of Surface Mining reports about the anthracite region paint a bleak picture of the devastating environmental problems caused by past mining. OSM estimates that it will cost $2 billion to repair the Priority 1 and 2 problems in Northeastern Pennsylvania. But to date, the federal government has only completed one-tenth of the necessary cleanup effort – less than $200 million on a $2 billion problem. That is only a small down payment, we have a lot more to do. Unfortunately, under the current program, the federal government invests less than $10 million per year to repair the anthracite region in Northeastern Pennsylvania.

At this snail's pace, we will mark two more centuries before Northeastern Pennsylvania's land and water are as clean as they were before the unregulated mine practices. Today, the anthracite region still has well in excess of 100,000 acres of abandoned mine land; hundreds of miles of polluted streams; more than 1,000 acres of dangerous piles of coal waste and embankments; 780 acres of mine pits; and nearly 1,000 acres of underground mine fires. The list of problem sites goes on and on – and we cannot afford to wait 200 more years.

On this Committee's tour of the region today, you saw huge black mountains of coal waste and slate – known as culm piles -- that dot this region's otherwise beautiful landscape. These black piles are the unfortunate tombstones to the anthracite mining industry. And they are the barriers that stand between today's environmental and economic difficulties and tomorrow's healthier and more robust Northeastern Pennsylvania.

Ask local residents who live adjacent to culm banks, dangerous stripping pits, and polluted (sometimes foul smelling) streams – they will tell you that this environmental catastrophe is a constant threat to their health and safety.

Ask the Greater Wilkes-Barre or Scranton Chamber of Business and Industry – they will tell you that the region has lost excellent prospective employers, and good paying jobs, because of this damaged former mine land.

Ask the Director of the Office of Surface Mining – she will tell you that after touring this region in May 1998, she concluded it was among the worst in the nation in terms of damaged land and polluted water.

Ask local conservation groups – who have walked the scarred land, tested the polluted water and soil, and continue to raise public awareness about the need to fix acid mine water problems.

And ask the Chesapeake Bay environmental and water groups – they will tell you that acid mine pollution from Northeastern Pennsylvania is the largest source of industrial pollution in the Chesapeake Bay. Indeed, cleaning up Northeastern Pennsylvania is not only good for this region, it is good for the millions of our neighbors to the south, all the way down to Maryland and Delaware.

A Major Hindrance to the Region's Full Economic Recovery

In addition to critical health, safety, and environmental concerns, the remnants of the anthracite industry have impeded the region's economic growth.

As I mentioned, the local Chambers of Commerce know first-hand that businesses have opted not to locate here because of the abandoned mine land sites that they view as unsightly, an environmental threat, and a reflection on the state of the local economy.

How else does this abandoned mine land impede economic growth?

Dwindling Supply of Flat Land and Clean Water. We face a dwindling supply of clean flat land and clean water for businesses considering opening facilities in the region. If we want to attract new business but lack the funds to clean our abandoned mine sites and brownfields, we will face a stark and troubling choice – either fail to attract those new businesses looking for available flat land or create that available land by destroying pristine greenways. That is an awful choice and one that we do not have to make if we clean this abandoned mine land. And the same holds true for our water supply – if we can offer prospective businesses an abundant supply of clean water, they will be drawn to this region.

Empirical data about population and employment levels also confirm that this region has not enjoyed the robust economic growth that our neighbors all around us have enjoyed in recent years.

Population Loss. The Scranton/Wilkes-Barre/Hazleton Metropolitan Statistical Area has experienced a steady population loss for many years. In fact, the most recent U.S. Census Bureau statistics reveal that this area is virtually leading the nation in population decline. From 1990 to 1998, this MSA lost more than 23,000 people (3.6 percent). Of the 349 MSAs nationwide, the Scranton/Wilkes-Barre/Hazleton MSA experienced the third largest loss in population.

And if we look further back in time, the story only gets worse. According to an excellent data base maintained by the Economic Development Council of Northeastern Pennsylvania, from 1980 to the present, the population in our MSA has declined 4.2 percent – and the population loss in the cities of Wilkes-Barre, Scranton, and Hazleton has been even more dramatic: a 14.7 percent loss in Wilkes-Barre, a 17.4 percent decline in Scranton, and a 7 percent loss in Hazleton. And we know that this population decline in cities does not merely reflect a migration to neighboring suburbs because the countywide population numbers have also steadily declined: a 5.2 percent population loss in Luzerne County (home to Wilkes-Barre and Hazleton) and a 7.5 percent population decline in Lackawanna County (in which Scranton is located). This population loss was in addition to the 30 percent reduction in population from 1930 to 1970. Economic development experts all agree that a major cause of this population loss is the lack of available good jobs for young adults who were raised in Northeastern Pennsylvania, but who leave the region after college.

Higher Unemployment Levels. At all times from 1980 to late 1999, Northeastern Pennsylvania has experienced consistently higher unemployment rates than the national and state average. It was not until May 1999 that our region's unemployment rate dropped below 5 percent – and in several years between 1980 and the present, our region's unemployment rate was two or three percentage points higher than the national average, while other region's in the so-called rustbelt enjoyed unemployment rates below the national average. We have certainly made significant job growth gains since 1980 – when the unemployment rate hovered near 10 percent (and reached as high as 11 percent in Luzerne County in 1985) – but we still have room for more progress and job growth. In fact, the availability of industrious workers is one of this region's attributes.

Thankfully, this region's economy has improved in recent years – and we are attracting an impressive and diverse range of businesses to the area. But the area cannot reach its economic potential, cannot encourage its youth to remain in the area, and cannot encourage others to move here without cleaning up the abandoned mine land and the polluted water.

This region is not asking for any special treatment or handout – it is prepared to compete against its neighboring regions for new business and higher-paying wages. And indeed it has, transforming its economy from one based largely on a single industry – anthracite and then the needle trades – to one that is diversified. But the playing field is not level because this region is saddled with the lingering environmental effects of unregulated mining practices. In short, this region is severely disadvantaged by the environmental problems posed by unclean waterways and former mine lands.

This may sound like a daunting challenge, but it is not insurmountable. We can and must mend this region's land and water -- and elevate the region to new levels of environmental quality and economic prosperity. That should be our shared obligation in this morning of the new century.

Regional Cooperation – the American Heritage Rivers Initiative

In fact, rather than ignore or cower from the challenge of repairing this region's abandoned mine land that we've inherited, this region is confronting this project head-on, with sensible first steps toward regional planning and cooperation. This effort is inspired by our recognition that cleaning our land and water is not only good environmental policy, but it is also good economic policy.

This environmental and economic recovery effort has received a major boost from Congressman Kanjorski and other members of the region's Congressional Delegation. When President Clinton invited regions across the country to apply for American Heritage River designation, Congressman Kanjorski formed a broad coalition of regional political, business, academic and community environmental leaders, who sat down together to prepare the application on behalf of the Upper Susquehanna-Lackawanna Watershed. Leaders and concerned citizens from Wayne and Susquehanna in the north to Northumberland and Schuylkill County in the south joined together in support of our successful application. The watershed that has been designated an American Heritage River comprises nearly 2,000 square miles of land, almost 1,600 miles of rivers and streams, and is home to approximately 640,000 people. The entire anthracite field includes the designated region, plus an additional 1,600 square miles – for a total of 3,600 square miles.

Importantly, the American Heritage Rivers Initiative has brought these residents and communities together in a cooperative, regional effort to clean abandoned mine lands and contaminated water – and thereby boost the economy. This is the top priority of the American Heritage Rivers Initiative in Northeastern Pennsylvania, which is strongly supported throughout the region. But the American Heritage Rivers Initiative is only one piece of the recovery plan. It will take much more to tackle this critical challenge.

An Environmental Master Plan for Northeastern Pennsylvania

We have already made important progress on that major effort. First, and foremost, we are undertaking a comprehensive GIS (Geographic Information Systems) Watershed Plan for the Upper Susquehanna-Lackawanna American Heritage River. This GIS Master Plan will contain extensive data about the region's environment, population, economics, physical infrastructure, natural resources, and other attributes. As you know, a Geographic Information System portrays a spatial relationship for environmental features (e.g., forests, streams, wetlands, wildlife habitat, etc.) and the local infrastructure (e.g., roads, cities, utilities, building foundations, sewer systems, etc.).

Once completed, our GIS database will facilitate smart, regional planning – and will offer a valuable resource to guide Northeastern Pennsylvania on numerous economic development and environmental remediation projects. For example, we can use GIS to identify vegetation cover, wetlands, streams, roads, parks, housing developments, and water treatment facilities. The GIS also enables planners to readily determine how many

acres of forest or wetlands are within a one-mile radius of a housing development, park, or water treatment plant. The GIS will further pinpoint the sources of water pollution, where the impacts are located, how the topography of the land affects that water flow, and the costs of cleaning the site.

The Pennsylvania GIS Consortium -- in partnership with numerous federal, state, and local governmental entities, as well as community groups – is performing this work. On the federal level, the Consortium is working closely with the U.S. Army Corp of Engineers, USGS, FEMA, HUD, EPA, and the Department of Interior.

Using the most sophisticated computer technology, our experts are developing the first integrated database inventory and GIS in the region. It will include a comprehensive inventory of the region's environmental problems as well as ongoing and future land and water restoration and resource development projects, including:

(a) acid mine drainage outfalls;
(b) abandoned mine land sites;
(c) sewage and storm water overflows;
(d) non-point source pollution, including farm water runoff;
(e) all major sources of pollution in the watershed;
(f) wetlands;
(g) current and planned resource and economic development projects;
(h) hydrological flow models in which to design clean-up projects.

Importantly, our GIS database will accelerate cost-effective environmental restoration projects and encourage even greater cooperation among the diverse communities in the region. It will be a tremendous decision-support tool for a wide range of projects. We intend to make this data readily accessible to community leaders and groups in order to promote sensible land-use planning and smart development. We will also provide GIS training to local municipal planners to ensure that they take maximum advantage of the wealth of information in the database.

We are well underway on this project, thanks to Congressman Kanjorski's leadership and both Congressional and Administrative support. For many months, the Pennsylvania GIS Consortium has been hard at work on our Watershed Plan and we expect to complete the first phase of this work by this summer.

From the outset, we have strived to make this a collaborative effort. To that end, a working group of federal, state, and local partners is meeting this Friday, January 28th, to discuss the progress of the Watershed Plan and the work that lies ahead. We will discuss data inventory and compilation, identification of water resource and environmental problems, GIS database management for the watershed, and examples of proposed watershed analysis. We intend to hold monthly meetings from January to April to explore related topics of acid mine drainage, hydrology and water quality, and combined sewer overflows.

This comprehensive GIS Watershed Plan is focused primarily on environmental features and problems in the anthracite coal region. However, we also expect that the data and GIS decision-support tools will be hugely valuable for land use planning, economic development, and environmental remediation for all local governments and administrative agencies in the region. The Watershed Plan is focused on three major environmental problems in the region: abandoned mine lands, acid mine drainage, and combined storm overflows. In addition, the Plan will address other related issues of land use, including agricultural runoff of sediments and nutrients or urban storm water runoff.

The Watershed Plan has been designed in three phases. The first phase involves an extensive inventory and compilation of relevant environmental and infrastructure data that can be integrated into a GIS and used in deciding how to remedy environmental problems. Our team of scientists and engineers is working to: (1) define needed GIS data within a watershed framework, (2) identify GIS data gaps that will require additional data acquisition and longer-term environmental measurements and monitoring, and (3) obtain, develop, and evaluate relevant ecological and watershed GIS assessment tools, including hydrologic, geo-chemical, and biodiversity models. This first phase also involves comparative assessments of specific subwatersheds of individual tributaries, including the Lackawanna River and Nescopek Creek.

Existing data will be used in a "broad-paint-brush" approach to GIS analysis that will enable us to identify those areas of Northeastern and Central Pennsylvania in which environmental impacts appear severe and complex (i.e., subwatersheds that have impacts from all three major problems), where human population densities are high, and where local, state, federal, and private sources of funding are limited for pollution control, environmental cleanup, and ecological restoration. With this information, communities in the American Heritage River watershed can begin to set priorities for environmental cleanup and sustainable development from a comprehensive, regional approach.

In the second phase of the GIS Watershed Plan, we will seek to acquire new GIS data necessary to conduct more detailed and thorough GIS watershed analyses. This additional data – including more detailed (spatial resolution) GIS data and GIS decision support tools – will enable us to assess the American Heritage River Watershed as a single ecosystem. It will also provide sufficient technical rigor for necessary engineering design to support environmental reclamation activities. For example, recent satellite imagery will provide data on land cover categories such as forests, urbanized areas, and mining features. We need this GIS data for hydrologic modeling of runoff and water budgets for individual subwatersheds of specific tributaries. Aerial photography will be processed in digital form (for computerized mapping) to provide an important source of elevation data and cultural features needed also for modeling of storm water, stream flow, and watershed runoff. Additional GIS environmental data may also be digitized to include information about soil quality, mining pits and wastes, and wetlands.

In addition, we intend to monitor stream flow, water chemistry, and ecological communities at specific sites in each major tributary. We will also conduct field surveys using the Global Positioning System. The GIS data will be employed for more precise

and rigorous applications of relevant ecological and watershed GIS assessment tools, including hydrologic (water budgets), geochemical (water chemistry), and biodiversity models considered and evaluated in Phase One of the project.

In order to provide us with the necessary information to undertake land and water reclamation, this data acquisition should include the following:

Remote Sensing: New satellite imagery is needed to provide a comprehensive GIS database on the entire Anthracite Field for mining impact assessment, re-vegetation and reclamation applications, and land use and land cover data for watershed, floodplain, and hydrologic modeling. Existing data from EPA is nearly 10 years old and out of date for watershed clean up and reclamation. The estimated cost for remote sensing is $2 million.

Watershed Monitoring and Water Quality Instrumentation: Before we can reclaim watersheds, mining impacted sites, and streams, we need detailed measurements (approximately on a monthly basis) of water chemistry and hydrology on all major stream tributaries impacted by mining. As part of the watershed plan, we estimate a start-up effort that includes detailed monitoring at selected high priority watersheds and "real-time" instruments for all three of the major anthracite fields in the region. The estimated cost is $4 million.

GIS Digitizing and CSO Applications: This component encompasses GIS digitizing of hard copy data needed for the Watershed Plan with an emphasis on soils, combined storm overflows, wastewater treatment facilities, and sewage collection systems. CSO modeling and analysis are also included. We have included real estate (parcel) conversion of land ownership for implementation of the Watershed Plan as part of the estimated composite cost of $4 million.

Advanced GIS Modeling, Database Management and Project Management: We anticipate that geochemical and hydrologic modeling will be complex given the nature of subsurface aquifers impacted by underground mining. Database management and project management costs are also included in the estimated cost of $4 million for this aspect of the watershed plan.

The current estimate for the total cost of the GIS Watershed Plan, exclusive of aerial photography, is approximately $14 million. The aerial photography is another critical component of our assessment of the entire watershed. This photography, which is estimated to cost $11,750,000, will ensure that we have 1600 negative Scale Aerial Photography of the entire region suitable for 200-scale mapping.

The third phase of the Watershed Plan will integrate these data, modeling analyses, and assessments with 700-scale GIS engineering design applications to execute environmental reclamation and ecological restoration projects. This phase will also include monitoring efforts in the field to update GIS analysis to assess recovery and reclamation activities.

This Region Is Ready To Undertake Cost-Effective Cleanup Projects

Because of the hard work that the Pennsylvania GIS Consortium and others have already performed, we are poised to begin critical land and water restoration projects that have not yet received federal funding. While our long-term plans for the Watershed Plan are ambitious, we already have a significant level of knowledge to undertake high-priority, cost-effective projects this year. We can – and must -- put the shovel in the ground as soon as we have sufficient data to make smart decisions about reclamation projects. The Pennsylvania GIS Consortium is confident that we already have great quantities of data to start that process.

The three phases of the Watershed Plan that I have described today will overlap and, to the greatest possible extent, will proceed concurrently so that we do not need to wait until Phase Three is completed to start the land and water cleanup work that must get done. But the work already completed – and the data we anticipate gathering by this summer – will be extremely valuable in starting this process. With only the hope that federal funding would be forthcoming, we are well underway in the planning and analyzing phase, which is the necessary first step.

An Innovative Funding Proposal To Address This Pressing Need

In 1998, for the first time in thirty years, the federal government enjoyed a budget surplus, which has only grown larger in more recent years. We recognize that there are many competing demands and opinions about ways to invest this budget surplus. We know that there are many important and valuable programs that merit funding.

But Congressman Kanjorski has devised an innovative funding proposal that requires minimal cost to the federal government and that would stretch the value of the federal government's commitment to new levels: federal tax-credit bonds to support environmental and economic development initiatives. Under this proposal, a public authority incorporated pursuant to state law could issue bonds that would offer purchasers a federal tax credit based on the current market yield on 30-year, tax-exempt debt obligations. At the outset, the authority would be required to invest 18-20 percent of the bond proceeds into a reserve or sinking fund that would increase in value over the 30-year period of the bond issue in order to pay the bonds at maturity. Meanwhile, the remaining 80 percent of the bond proceeds would be devoted to the environmental and economic development projects outlined in a comprehensive regional plan. As for the purchasers of the bonds, in lieu of annual interest payments, they would be entitled to a federal tax credit equal to the value of their bonds multiplied by the long-term municipal bond rate.

This funding proposal would result in only a minimal loss of federal tax revenues, while generating significant sums to fund environmental and economic development projects. The proceeds of the bond issue would be used to purchase, restore, preserve, and redevelop abandoned mine land. We would reclaim the land and cleanup the

Susquehanna and Lackawanna Rivers and their tributaries pursuant to a thoughtful land use planning proposal that would be driven by local needs and priorities – and informed by local communities, rather than Washington, D.C. We expect that much of the land would be returned to pristine conditions and reserved for open space and recreational purposes; other parcels would be used for economic development.

The financing scheme will work in Northeastern Pennsylvania to reclaim abandoned mine land – and it can work in other regions of the country to address their pressing needs. Because of our work on the GIS Watershed Environmental Master Plan, we are prepared to being reclamation work this year.

How can we maximize federal oversight of this program? Congressman Kanjorski has drafted legislation to establish the Anthracite Region Reclamation and Development Trust as a wholly owned government corporation. With powers similar to those of other federal government corporations, this Trust would oversee the investment and expenditure of the bond proceeds, including that portion invested in the reserve fund. The Trust would also assist in the development and review of regional land and water reclamation plans – such as the Watershed Plan that the Pennsylvania GIS Consortium is developing. If the Trust approves a regional plan, it would then have the authority to grant the certificate to the regional authority to issue the tax-credit bonds and then oversee the reclamation projects.

Conclusion

It is time for bold and innovative steps to clean this region's land and water – and to begin a new renaissance in Northeastern Pennsylvania. The existing federal program is not working because it funds clean-up projects at a snail's pace. This region has suffered long enough.

Let's try a new prescription for progress. Let's try a new federal tax-credit financing program. Let's clean our mine-ravaged land once and for all. Let's give businesses another reason to locate here, in addition to our industrious workforce and proximity to major metropolitan markets. Let's give current residents a reason to remain here and raise their families here. And let's give those who left the region a reason to come back.

Thank you for this Committee's concern about the health of Northeastern Pennsylvania. I look forward to working with you on these proposals.

STATEMENT OF ROBERT HUGHES, EASTERN PENNSYLVANIA COALITION FOR ABANDONED MINE RECLAMATION

Mr. HUGHES. Mr. Chairman and Members of the Committee. My name is Robert Hughes, a native of the Wilkes-Barre area located in the northern anthracite coal fields just south of Scranton here and a resident of the Borough of St. Clair down in Schuylkill County, which is located in the heart of the southern anthracite coal fields. I am here today as the regional coordinator representing the Eastern Pennsylvania Coalition for Abandoned Mine Reclamation.

First of all, I'd like to thank you for giving EPCAMR this opportunity to address you this afternoon on the familiarizing Members of the Committee with mine land reclamation problems specific to Northeastern Pa.

As for background on the Coalition, we are a regional nonprofit organization made up of representatives of the conservation districts from 9 out of 16 eastern Pennsylvania coal counties affected by the AMD and abandoned mine lands directly, the anthracite industry, over 20 local watershed organizations with well over a thousand volunteers attached to those organizations made up of sportsmen groups, conservation clubs, conservancies, and representatives from the general public. Our Coalition was formed in 1996 to identify how the county conservation districts and their local cooperating organizations could promote and contribute to local, state and Federal mine reclamation efforts. Our mission is to encourage the reclamation and redevelopment of those abandoned mine lands and remediation of waters affected by past mining practices in Eastern Pennsylvania.

An increasingly important role of our Coalition has been to serve as a liaison between the local watershed organizations, private businesses, economic development interests, the mining industry, DEP, Bureau of Abandoned Mine Reclamation, the Federal agencies and other groups involved in abandoned mine reclamation. We are also actively involved in raising the awareness of the general public, our schools and our elected officials on a local, state, Federal and national level regarding these issues related to abandoned mine lands.

It's my job to provide technical assistance to support the conservation districts and these watershed groups through assisting in grant writing, establishing public education and outreach programs, and rejuvenating local watershed groups. I am proud to say there are more local watershed organizations active in abandoned mine drainage remediation efforts in Pennsylvania than there are in any other state in the Nation. Well over 50 groups in Pennsylvania make up this contingency. I work side by side with these groups in Eastern Pennsylvania to inform and educate the public on AMD and AML issues and technical interests relative to the specific reclamation and remediation techniques being proposed for sites and discharges in their local watersheds.

First, as a member of the National Coalition for Abandoned Mine Reclamation, I know that our Coalition would like to see the Rural Abandoned Mine Program (RAMP), which in the past has been financed by the AML fund and administered by the USDA-Natural Resources and Conservation Service, be supported once again. The RAMP has not been funded since 1996. This program worked

through local communities, community volunteers, conservation districts and other agencies, to solve and address many AML problems. The NRCS provided most of the technical assistance, natural resource planning, design and construction of many of the earlier AMD and AML projects. Today in Eastern Pennsylvania there are few staff available who have the time or financial resources under other Federal programs that they are administering to fully support and commit their time to abandoned mine reclamation efforts in Eastern Pennsylvania. Watershed organizations, county conservation districts and reclamation related groups will tell you that the one area that truly we need assistance in is the design and construction of some of these passive treatment systems to abate abandoned mine drainage. NRCS used to—under RAMP, used to fulfill that need very efficiently.

Our Coalition would like to continue to establish an open line of communication with the Office of Surface Mining, DEP, Bureau of Abandoned Mine Reclamation, Bureau of Mineral Resources, Pennsylvania Mining Reclamation Advisory Board, economic development interests, the chamber of commerces, the IDAs and the EPA in the near future to discuss the flexibility on certain regulations especially when the laws deal with redevelopment of abandoned mine lands. EPCAMR is very interested in playing a role in conducting outreach meetings and coordination efforts, if there is enough interest to develop regional task forces similar to the Luzerne-Lackawanna Counties Brown Fields/Black Fields Task Force, to address some of these obstacles to the regulations.

The mining industry of the past needs to be looked at in the future as potential brown field-like redevelopment areas we call black fields or gray fields today. Many of these sites have great potential for redevelopment due to their proximity of existing infrastructure, potential boost to the local economy, elimination of public health and safety features, clean up of ground water and surface water contamination, and alleviation of the pressure on businesses that build on previously undeveloped non-urban area green fields, pristine forestlands and farmlands. Yet very little Federal moneys have been released or granted to inventory and assess these areas under the AML program. Not much Federal funding has come to the anthracite region under the EPA's as well as under such programs such as the Brown fields Economic Redevelopment Initiative either.

There are thousands of acres that surround numerous communities in the anthracite coal region that remain today as unproductive as they did more than a hundred years ago. We should concentrate our efforts on having our communities be able to have the access to these undeveloped acres for social, economic and as well as environmental uses. Expanding and reconnecting our communities separated by mountains of culm, creation of open space areas, wildlife habitat enhancement, water quality improvements, recreational opportunities and economic development interests of these abandoned mine lands should be of the utmost importance.

Mine reclamation restores communities and enables them to rebuild their economic base to attract more sustainable businesses and jobs. Who wants to locate a business in a place that looks like the surface of the moon, has orange-tainted streams and poor water quality within its community, a poor local economy and an

unhealthy population. We should be at least asking Congress to demand that the SMCRA Promise be kept. Our communities have lived—and learned the hard way long enough. Thousands of people in Pennsylvania support watershed and reclamation activities through their contributions of time, effort, donations and through volunteering. The people of Pennsylvania understand that without clean water, the social, recreation, economic and environmental vitality of the anthracite region will be severely disadvantaged for our future generations.

With regard to your second question as to how the coalition describes the successes and failure of reclamation efforts of abandoned mine lands as well as present new solutions to improve past practices, first and foremost local community support for reclamation and remediation projects needs to be in place for a successful project to occur. Tapping local government municipalities, township supervisors, contracting and construction companies for volunteer services such as the use of a front-end loader, a bulldozer, dump truck for hauling stone, pipe, even landfill liner are all crucial to the success of locally driven environmental restoration projects. Local involvement often expands what at first might be a narrowly focused project to a more comprehensive watershed effort as additional people and financial resources are brought to the table. These additional resources often assure that the efforts will continue long after the completion of an initial project. Federal programs need to be matched with the state grant dollars to continually support the efforts of such groups. You cannot ask for a better return on your investment when sweat equity, as I like to call it, of the local volunteers committed to cleaning up abandoned mine land impacts in their watershed is involved.

There is still hope for the anthracite region. The key to the Coalition's success has been our ability to involve local groups in the upfront process of developing watershed restoration plans, identifying problems, assessing the impacts, coming up with feasible solutions and drawing on the strengths of each of our partners. Each group has an active role in the decisionmaking process. However, we are at a point where action must be taken to continue the work of abandoned mine land reclamation and AMD remediation and restoration of our streams in Pennsylvania or our local efforts may be stifled and fall by the way side.

The CHAIRMAN. Robert, how much more do you have?

Mr. HUGHES. Just a sentence.

The CHAIRMAN. OK.

Mr. HUGHES. More Federal funding to Northeastern Pennsylvania will assure that local watershed restoration efforts can continue complimenting the reclamation work that is completed by our state Bureau of Abandoned Mine Reclamation on a comprehensive watershed basis. Thank you.

[The prepared statement of Mr. Hughes follows:]

Eastern Pennsylvania Coalition for Abandoned Mine Reclamation
Robert E. Hughes, *Regional Coordinator* 1206 Ag Ctr Drive, Pottsville PA 17901
570-628-3377 (p) epcamr@ptdprolog.net 570-622-4009 (f)

Testimony of the Eastern PA Coalition for Abandoned Mine Reclamation (EPCAMR)
given by
Robert E. Hughes, Regional Coordinator
To the
US House of Representatives
Committee on Resources
Subcommittee on Energy & Mineral Resources

January 24, 2000

Oversight Hearing on the
"Abandoned Mined Land Reclamation Needs of the Pennsylvania Anthracite Fields"

Mr. Chairman, and members of the Committee, my name is Robert E. Hughes, a native of the Wilkes-Barre area, located in the Northern Anthracite Coal Fields, just south of Scranton, and a resident of the borough of St. Clair, Schuylkill County, located in the heart of the Southern Anthracite Coal Fields. I am pleased to be here today as the Regional Coordinator, representing the Eastern PA Coalition for Abandoned Mine Reclamation (EPCAMR). First of all, I would like to thank you for giving EPCAMR this opportunity to address you this afternoon on the subject of familiarizing members of the committee with mined-land reclamation problems specific to Northeastern PA.

As for background on EPCAMR, the Coalition is a non-profit organization created by representatives of the Conservation Districts from 9/16 eastern PA counties affected by AMD/AML directly, the anthracite industry, over 20 locally organized watershed associations (which cover 14/16 counties in our Coalition Region), sportsmen's groups, conservation clubs, and representatives from the general public. EPCAMR was formed in 1996 to identify how the County Conservation Districts and their local cooperating organizations could promote and contribute to local, state, and federal mine reclamation efforts. The mission of the Coalition is to encourage the reclamation and redevelopment of abandoned mine lands and remediation of waters affected by past practices of the mining industry in Eastern PA.

EXHIBIT 16
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An increasingly important role of the Coalition has been to serve as a liaison between the local watershed organizations, private businesses, economic development interests, the mining industry, DEP, BAMR, OSM, EPA, and other state and federal agencies involved in abandoned mine land reclamation activities and acid mine drainage remediation. We are also actively involved in raising the awareness of the general public, our schools, and our elected officials on a local, state, federal, and national level regarding issues related to mine land reclamation and acid mine drainage.

It is my job to provide technical and administrative support to the Conservation Districts, coordinate reclamation activities, assist in grant writing, establish a public education outreach program within the schools, and to rejuvenate local watershed groups, primarily in those areas where streams have been adversely affected by abandoned mine siltation and abandoned mine drainage. There are more local watershed organizations active in mine drainage remediation efforts in Pennsylvania than in any other state in the nation. I work side by side with these local groups to inform and educate the public on AMD/AML issues, and technical interests relative to specific reclamation and remediation techniques being proposed for sites and discharges in their local watersheds.

Back to the questions presented to all the speakers here today...

"How effective is the current AML Program authorized under the Title IV of the Surface Mining Control & Reclamation Act of 1977 (SMCRA), versus the need for developing new funding and disbursement mechanisms for on-the-ground reclamation solutions?"

and

"Can the Eastern PA Coalition for Abandoned Mine Reclamation (EPCAMR) describe the successes and failures of reclamation efforts of anthracite-mined lands as well as present new solutions to improve past practices?"

First, as a member of the National Coalition for Abandoned Mine Reclamation (NCAMR), EPCAMR would like to see the Rural Abandoned Mine Program, which has in the past been financed by the AML Fund and administered by the USDA-Natural Resources and Conservation Service be supported once again. The RAMP has not been funded since 1996. This program worked through local communities (community leaders, Conservation Districts, and other agencies) to solve and address many AML problems. The NRCS provided most of the technical assistance, natural resource planning, design, and construction of many of the earlier AMD and AML reclamation projects. Today, in Eastern PA, there are very few staff available who have the time or financial resources under other Federal programs that they are administering to fully support and commit their time to abandoned mine reclamation efforts. Watershed organizations, Conservation Districts, and reclamation related groups that work with the EPCAMR, will tell you that the one area that they truly need assistance with is in the design and construction of the passive treatment systems for AMD remediation. NRCS under RAMP used to fill that need efficiently.

Another major obstacle is the primacy issue with the Federal Government, under the Office of Surface Mining. Pennsylvania must comply with these Federal regulations that were set in motion and made law in the late 1970's when SMCRA was authorized.

One such obstacle to the redevelopment of abandoned mine lands under some of the federal guidelines authorized by the Surface Mining Control Reclamation Act (SMCRA) is the extent to which these areas have to be reclaimed, revegetated, recontoured, the limited land use classifications, sites being overly excavated, and the amount of time the land must sit idle before any changes to the area can be made. Some of the current regulations that are in place dealing with mine land reclamation, provide no flexibility for other beneficial and economical uses of the land. For example, if a building were to be constructed on a former abandoned mine site, interpreting the current Federal regulations under SMCRA, the building and the land may not be structurally sound. These abandoned mine sites that only contain spoil piles, culm dump, some water-filled pits, and surface depressions, are prime locations in our region for reclamation and redevelopment. We would no longer have to utilize as much of our forest lands for development, if these abandoned areas were reclaimed first and Federal funds were available to groups other than non-profit organizations to reclaim the land.

Another obstacle that occurs when dealing with abandoned mine lands is in relation to marketing and development of available abandoned mine lands that could be suitable for redevelopment, if viable sources of funding were available to the private industry such as economic redevelopment agencies, industrial development authorities, and or chambers of commerces. Many companies will not locate in our region because the economic interest groups do not have available financing mechanisms, any incentives, or funds to prepare abandoned mine lands for development prior to having an interest from perspective buyers. Our region loses out when prospective companies come into the area looking for land interests and the only image that they leave with is that of monstrous, ugly looking culm banks, water-filled stripping pits, abandoned mining equipment, and streams that run orange that are degraded by AMD. This image of Northeastern PA should not fall on the shoulders of the economic interest groups alone. Entire economic regions and communities will benefit at large down the road from the reclamation of these lands, and therefore, other financial assistance is necessary from the federal government to reclaim even more acres of abandoned mine lands.

EPCAMR would like to continue to establish an open line of communication with the OSM, the DEP-BAMR and BMR, the Pennsylvania Mining & Reclamation Advisory Board, Economic Development Interests, Chambers of Commerces, Industrial Development Authorities, and the EPA, in the near future to discuss the flexibility on certain regulations, especially when the law deals with the redevelopment of abandoned mine lands. EPCAMR is very interested in playing a role in conducting outreach meetings and coordination efforts, if there is enough interest to develop regional task forces, similar to the Luzerne-Lackawanna Counties Brownfields/Blackfields Task Force, to address some of the obstacles to the regulations.

The Anthracite Coal Industry declined during the 1900s, coal companies went under, and the resulting impacts were devastating. Thousands of acres of abandoned mine lands were left unreclaimed, thousands of miles of streams were degraded by AMD, industrial coal mining facilities with contaminated soils, abandoned industrial facilities, coal breakers in disrepair, improper disposal of equipment and machinery, solvents, heavy metals, abandoned shafts, tunnels, and mine openings. The mining industry of the past needs to be looked at in the future as potential brownfield-like redevelopment areas, we call 'blackfields' or 'greyfields', today. Many of these sites have great potential for redevelopment due to the proximity to existing infrastructure, potential boost to the local economy, elimination of public health and safety features, clean up of groundwater and surface water contamination, creation of wildlife and habitat areas, and alleviation of the pressure on businesses that build on previously undeveloped non-urban areas-greenfields, pristine forestlands, and farmlands. Yet very little Federal monies have been released or granted to inventory and assess these potential sites under the AML Program. Not much Federal funding has come to the Anthracite Region from the EPA under the Brownfields Economic Redevelopment Initiative either.

There are many thousands of acres that surround numerous communities in the Anthracite Coal Region alone, remain as unproductive today as they did when left abandoned more than fifty years ago. We should concentrate our efforts on having our communities be able to have the access to these undeveloped acres for social, economic, as well as environmental uses. Expanding and reconnecting our communities separated by mountains of culm, creation of open space areas, wildlife habitat enhancement, water quality improvements, improving the areas quality of life, recreational opportunities, stream restoration, and economic development of these abandoned mine lands should be of the utmost importance.

Furthermore, the release of the Abandoned Mine Land Trust Fund dollars for mining and reclamation should be of great importance to this Committee. In 1977, when Congress passed and President Carter signed the Surface Mining and Reclamation Act (SMCRA), the Act required reclamation standards, performance bonds, and mandatory restoration progress on coal lands abandoned prior to August 3, 1977. The Act also set forth fees to be paid on all active mining operations. Surface mined coal (.35/T). Underground coal (.15/T). Lignite, a low-grade coal (.10/T). These revenues have been deposited back to the states for AMD reclamation and mine drainage remediation. Currently, there is nearly $2 Billion that has not been released.

Pennsylvania is the 4th largest producer of coal in the Nation. Pennsylvania only receives approximately $20-25 Million from the Federal Abandoned Mine Land Trust Funds. This amount pales in comparison to the level actually needed to properly address the AMD/AML problem in Northeastern PA. Under the present Federal Program, only 10% of the money received from the AML Trust Fund may be used to address AMD pollution, which amounts to just over a mere $2 Million a year. The Federal Program considers AMD a low priority. Pennsylvanians involved in the local watershed restoration efforts throughout the Northeast would beg to differ.

Rather than having these monies taken in and applied against the unified federal budget, EPCAMR and a host of other groups, would like to see that money returned to states with viable AMD remediation projects. We are seeking flexibility in the use of the funds to achieve greater results at less cost. We are proposing that Congress consider altering the language that directs the mine reclamation funds to better target Federal resources in a more cost effective manner. With some flexibility, we can attract more private support and volunteer involvement to reduce the costs of abatement and reclamation dramatically. The language that controls the expenditure of the funds was written for a 70's mine reclamation paradigm.

Today, three decades later, there are better, more innovative, technologically sound, scientifically proven methods, and less costly treatment options available that weren't even thought of thirty years ago, to eliminate past mining scars and remediate AMD in the waters of the Commonwealth. We are asking that the formula for distribution among the states be preserved to avoid conflicts with other states and further suggest that no changes be made that would negatively impact miners or retired mine workers.

Right now, because of the formula, some states (e.g. Wyoming) get more dollars than they can possibly spend on AML/AMD clean up, while the older coal field states, PA being one of them, never have enough money. For example, ensuring the responsible spend-down of the estimated $2 BILLION AML Trust Fund could inject millions of dollars into the local economy of the coal fields, particularly in the Anthracite Coal Fields, as well as the Bituminous Region of western PA, and throughout Appalachia for more abandoned mine land reclamation and AMD remediaition. The dispersion of these funds should be based on needs of the states, not on their historical coal production levels.

Speaking of economics, increased Federal grants for abandoned mine reclamation will also create more jobs in the Anthracite Region. Reclamation of abandoned mine lands is labor-intensive, even more so than modern mining methods, since more care must be exercised to bring land back to approximate original contour (AOC), or roughly the condition it was in prior to mining. Mine reclamation restores communities and enables them to rebuild their economic base and attract more sustainable businesses and jobs. Who wants to locate a business in a place that looks like the surface of the moon, has orange-tainted streams and poor water quality within its community, a poor local economy, and an unhealthy population? We should at least be asking Congress to demand that the SMCRA Promise be kept. Our communities have lived and learned the hard way long enough. The US House of Representatives now have an opportunity to help. Thousands of people in PA support watershed and reclamation activities through contributions of time, effort, donations, and through volunteering. The people of PA understand that without clean water, the social, recreational, economic, and environmental vitality of the Anthracite Region will be severely disadvantaged for our future generations.

Yet another hurdle to abandoned mine reclamation is the EPA's required two foot of top-soil regulation. It would be a logical step to try and get fly-ash that is currently produced by Pennsylvania Co-Generation Plants licensed as a top-soil amendment for mine reclamation. In a recently published report, the EPA determined that waste coal ash

itself is exempt from regulation, yet surprisingly the Agency determined that the beneficial use of coal ash in mine reclamation and agricultural amendments should be regulated as hazardous waste. Furthermore, an EPA determination that waste CFB (Circulating Fluidized-Bed) waste and other ash byproducts as hazardous, would have far reaching effects on Pennsylvania's taxpayers and the environment. Furthermore, the Agency's conclusions are not at all supported by the technical data they themselves collected. The Pennsylvania Department of Environmental Protection (DEP) comprehensively regulates use of the ash in reclamation and soil amendments; and no adverse impacts have been discovered despite a decade of monitoring.

A byproduct of the combustion is an alkaline ash that Pennsylvania DEP has approved for use in reclamation programs for active and abandoned mines. The ash is returned to the site to neutralize other pyritic and acid bearing materials that could not be used as fuel, and to supplement native soils to promote site revegetation. The sites are backfilled, contoured, and vegetated. By reclaiming these sites, the electric power generating industry is also eliminating many potential safety and health hazards in the community. The abandoned waste sites pose the threat of accidental fires, and they are sometimes used as trash dumps or recreational areas for people using all-terrain vehicles. Sedimentation and erosion problems are also eliminated in areas where streams are located nearby.

I want to mention another asset that we sometimes seem to take for granted. The Co-Generation Plants. In the Anthracite Region, we can not thank some of our regional Co-Generation Facilities enough for the great job they do in reclaiming abandoned mine lands. Frackville-Wheelabrator, Mt. Carmel-Foster Wheeler, Northampton Generating Company, McAdoo-NE Power Generating Company, Gilberton Plant, etc., to name a few. The aforementioned companies should be considered one of the greatest assets we have in our region. They are the private companies that are reclaiming the land without any costs to the taxpayer. Deregulation of the electric utility industry over the next 10-15 is going to seriously hamper the amount of abandoned mine lands and culm banks that are currently being reclaimed. PA DEP estimates that is costs around $20,000 to clean up just one acre of abandoned mine lands. To date, more than 2,300 acres of abandoned mine lands have been cleaned up, saving PA residents nearly $460 Million. This estimate does not include the elimination of AMD. We need to continue to support these Co-Generation Plants.

Throughout Pennsylvania there are 14 waste coal-fueled power plants, representing a total of 886-MegaWatts (MW) of generating capacity and a capital investment of nearly $2.5 billion. By burning waste coal for fuel, these plants are cleaning up abandoned mines sites and waste coal piles across PA. As you know, waste coal sites seriously impact water quality, contribute to the formation of Abandoned Mine Drainage (AMD) and threaten public health and safety. These cleaner burning waste coal-fueled facilities are a premiere example of industrial operations that contribute to significant reductions in air, water, and solid waste emissions. Potential closure of the Co-Gen Plants would create adverse environmental and economic consequences for dozens of small communities across the state.

With regards to your second question, as to can EPCAMR describe the successes and failures of reclamation efforts of anthracite-mined lands as well as present new solutions to improve past practices?"

First and foremost, local community support for reclamation and remediation projects needs to be in place for a successful project to occur. Tapping local government municipalities, township supervisors, contracting and construction companies for volunteer services such as the use of a front-end loader, a bull dozer, dump trucks for hauling stone, pipe, even landfill liner, are all crucial to the success of a locally driven environmental restoration project. For example, Wiconisco Creek, which empties into the Susquehanna River at Millersburg, in Dauphin County, has been severely damaged by AMD, particularly the Porter Tunnel discharge in the headwaters of the watershed. Along comes the Williams Valley HS Environmental Science Club, under the direction of their Science teacher, and with a great idea to help bring back the Wiconisco Creek as a community resource.

The students raised money through the recycling of cans and plastics to purchase limestone rock for the construction of a diversion well and limestone sand needed for the dosing project on the Wiconisco Creek. The local watershed organization gained the support of landowner all along the Creek, the local Lions Club, and the Township Supervisors, as well. A large potato Farming Operation, stockpiled the limestone and the sand on their property. A local quarry donated thousands of tons of limestone at discounted prices. The Army National Guard provided the hauling of the stone for free. The local Fire Company hosed down the Army flatbeds. The Township Supervisors dumped the limestone into the well and the limestone sand into the stream for the project at various locations in the watershed using their own township equipment.

EPCAMR, the Wiconisco Creek Restoration Association (WCRA), and the Schuylkill and Dauphin County Conservation Districts helped to coordinate the events and rallied public support to improve the Wiconisco's water quality. You couldn't ask for a better team of volunteers. Local involvement often expands to what at first might be a narrowly focused project in to a more comprehensive watershed effort as additional people and financial resources are brought to the table. These additional resources often assure that efforts will continue long after the completion of an initial project. State grant programs need to be matched with Federal grant dollars to continually support the efforts of such groups. More federal dollars for small projects such as this one are desperately needed if we are going to curb the problems associated with abandoned mine lands and acid mine drainage. You can not ask for a better return on your investment, when "sweat equity", as I like to call it, of the local volunteers, committed to cleaning up abandoned mined land impacts in their watersheds is involved.

The key to EPCAMR's success has been our ability to involve local groups in the up-front process of developing watershed restoration plans, identifying the problems, assessing the impacts, coming up with feasible solutions, and drawing on the strengths of each of our partners. Each group has an active role in the decision making process. However, we are at a point where action must be taken to continue the work of abandoned mine land reclamation and AMD remediation and restoration of our streams in

Pennsylvania or our local efforts may be stifled and fall by the wayside. More Federal funding to Northeastern PA will assure that local watershed restoration efforts can continue complimenting the reclamation work that is completed by our State Bureau of Abandoned Mine Reclamation on a comprehensive watershed basis.

Respectfully Submitted,

Robert E. Hughes
Regional Coordinator, EPCAMR

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Regional Coordinator

Eastern Pennsylvania Coalition for Abandoned Mine Reclamation (EPCAMR)

Reclaim Abandoned Mine Lands Through Partnerships Today, For A Cleaner Environment Tomorrow

Robert E. Hughes

1206 Ag Ctr Drive

Pottsville, PA 17901

570-628-3377 or 570-622-0709

epcamr@ptd.net

The CHAIRMAN. Thank you. Just out of curiosity, have you two sat in the same meetings together?

Mr. ROGERS. Oh, yes.

The CHAIRMAN. So you are working together.

Mr. ROGERS. Oh, you bet. As I said—.

The CHAIRMAN. You're not a separate effort.

Mr. HUGHES. I am a member of the American Heritage River Steering committee as well.

The CHAIRMAN. If we're going to do this we have to do it all together and make sure that we work together to work on it. Doctor, you're aware that the OSM is actively working now on reforestation.

Mr. KLEMOW. That's one of their strategies but when you look at much of the reclamation that's done around here—and actually I think more reclamation is done more by the state, if I am not mistaken, than by OSM—their goal is to create a meadow.

The CHAIRMAN. It's probably easier. But I have to agree with you, I'd like to see more trees growing. I think it is—I am the wildlife specialist and I like to see trees that produce certain foods for certain wildlife so I can pursue them.

Mr. KLEMOW. I guess one of the reasons for lack of trees is that the species mixes that are sown on the site are herbs and grasses. Even worse, they're all foreign species that are actually aliens to this area.

The CHAIRMAN. Why?

Mr. KLEMOW. Mainly to establish a vegetable cover quickly.

The CHAIRMAN. Well, that's the meadow. I am talking about the trees. Can they plant trees—.

Mr. KANJORSKI. No, not in the present morphology. They just backfill with the rock and then they put a half inch or inch of topsoil and it can't sustain vegetation of a tree. That's the problem. If we did it comprehensively we could move earth and then get the clays and the soils necessary to sustain a root system for a tree. It isn't done that way.

The CHAIRMAN. Well, I am hoping that they look at the possibility. I don't think trees would be that much more difficult if we have the water base. I do believe it could occur.

Mr. KLEMOW. See, other problem is that the meadow actually prevents trees from coming in.

Mr. SHERWOOD. If you look at the strip mining piles, they are covered with white birch.

Mr. KLEMOW. Gray birch, yes.

Mr. SHERWOOD. White birch, gray birch. OK. But not knowing about gray birch—but that must grow on those acidic sites.

Mr. KLEMOW. Right.

Mr. SHERWOOD. So therefore, why wouldn't trees grow after they get them—I mean I know a strict meadow inhibits the tree but it's not easy to start a Pennsylvania forest from scratch because the normal trees that are planted in the west aren't our native species anyway. It's very easy if you cut one over to have it regenerate but not when you bulldoze. So what is the solution?

Mr. KLEMOW. I think we just have to be a little bit patient because if you want to reclaim a site and go out there 3 months later and see a lush community, then all you're going to be able to grow

is a meadow. But if you're willing to wait two to 4 years and then go out, eventually you will have the forest that will be starting to come in. As a matter of fact, there's some areas on Earth Conservancy lands that have been rough graded that are now starting to look very good because you get the revegetation—.

The CHAIRMAN. If you do birch or gray birch growing, that's a very short leafed species and the more desirable species will grow up in the shade.

Mr. KLEMOW. If you amend the soil. Right now in a culm bank, I don't see that happening that much.

The CHAIRMAN. Let me go back. Alex, if what you say is true; that your consortium is working well together and you have the plan, why do we have to have a plan? All we have to do is to figure out how to sell the bonds so the plan works, right?

Mr. ROGERS. Well, I think we're working on parallel tracks. We are developing the plan. We've discovered that many of the Federal agencies weren't talking to each other—.

The CHAIRMAN. Well, actually they never do.

Mr. ROGERS. But really for the first time we're going to build an integrated data base inventory of acid mine drainage outfalls in the area, abandoned mine land sites. This will be the blueprint that when the money frees up, we will know how to spend it.

The CHAIRMAN. That goes back. Why do I have to use the Federal agencies at all if you have a plan and the consortium in place and we fund it?

Mr. ROGERS. If you fund it, I think that's exactly right. I think you'll streamline the Government significantly.

The CHAIRMAN. I am afraid, with all do respect to my friend, if the EPA gets involved in it—which reminds me, do you know—every time we have cleanup area here, reclaimed area, an EIS statement has to be filed?

Mr. ROGERS. I believe that's right.

The CHAIRMAN. That takes time. That ought to be eliminated.

Mr. KANJORSKI. And expensive.

The CHAIRMAN. And expensive. I mean that's just an idea.

Mr. KANJORSKI. The only provision, Mr. Chairman, that we put in for the corporation was for the comfort level of the Congress that the funds would properly be used. I mean we are talking about a larger—.

The CHAIRMAN. Right now they're so uncomfortable, some of those agencies, they might be more comfortable—.

Mr. ROGERS. Well, we would certainly be open to Congressional administrative oversight. But you hit on the right point, We are taking matters into our own hands and if this funding proposal comes through, we're going to clean up this area significantly quicker than the Federal or state programs.

The CHAIRMAN. Mr. Sherwood.

Mr. SHERWOOD. Mr. Hughes, are you familiar with the limestone bed that was set up in Sullivan County? How is that working?

Mr. HUGHES. Right now I think it's been about 6 months since it's in operation, that system is on the big Loyalsock Creek in Sullivan County.

Mr. SHERWOOD. Yes. One of the great trout streams in the northeast, Don.

Mr. HUGHES. I was put in by the state Bureau of Abandoned Mine Reclamation and after 6 months' time now it's not enough time that you would get the fluctuations in the water quality out so that it would become a more steady state. However, just in the 6-months' time that particular stream was very low in pH, probably about 4 and-a-half. It had a lot of aluminum—metal contamination to the water and some iron involved. When they put in the limestone bed trenching system in there, it's called a Successive Alkaline Producing System, a SAP system is what we call it, as one method of treatment. Having, run the water through that limestone bed and come out the other end at the discharge pipe, the pH is holding pretty steady at 6 and-a-half right now and water quality down stream has been improved dramatically just over the course of 6 months. The limestone with its high calcium carbonate content allows a lot of the metals to precipitate out a lot quicker and the pH in the water adjusts and becomes a little bit higher so the downstream impacts of that particular stream are going to be positively impacted in the future.

The CHAIRMAN. Will those rocks have to be removed and replaced?

Mr. SHERWOOD. That's exactly the question I asked him when I went to see it.

Mr. HUGHES. I think in that particular situation up there, if they have a flushing mechanism in the place that's at the bottom of the bed—if they have a PVC pipe flushing system, they would manually be able to go out there and flush that every now and then to take out any flock that may be left in the bed and they would just have to flush through a sedimentation basin or a polishing pond to collect the aluminum or metal precipitate so that it doesn't get—.

The CHAIRMAN. Sediment pond is what you're talking about.

Mr. HUGHES. Yes. A lot of these systems do have that and if the discharge doesn't have iron—if the iron isn't coating the rocks, which in some cases we have done this in the past and that's been some of our failures—is we've put limestone rock in discharges that were heavily impacted by iron and they armored the limestone and made it virtually ineffective—or maybe 20 to 30 percent effective to actually produce a higher pH and adding alkaline generation to the water. I think we've learned from the past not to do with that high iron discharges. We generally—.

The CHAIRMAN. You take out the aluminum and anything else.

Mr. HUGHES. You take out the aluminum and some other trace metals. As long as we have a flushing mechanism to get out the precipitate.

Mr. SHERWOOD. They covered the limestone rock. It was a very hard limestone rock, so it wouldn't dissolve, with an inner material that was waste from the horse manure and mushroom beds and they used that to filter the sun to keep from destroying the rock.

The CHAIRMAN.

Mr. KANJORSKI. Thank you. I'll direct it to, I guess, Alex and to Dr. Klemow. Can you give us some examples of—the Committee some examples of the successes we've had in the last year in some of the projects of the GIS consortium because I think the Chairman—GIS is another word that's out there. Tell us about the GIS.

Mr. ROGERS. The GIS system, Geographic Information System, has all—takes information from many different sources and combines them in one data base. I mentioned topography, vegetation. We do this with remote sensing and digitizing information. We've then taken that information—we've already put the shovel into the ground—and Ken has worked on this in the Earth Conservancy land where we have taken acid mine drainage sites, we have the GIS information about those sites and then we've invested in very innovative technology—some of which Robert's alluded to—to clean up. But, Ken, you have those results on the tip of your tongue. Why don't you give the Chairman some of the numbers—how we've reduced the iron content and aluminum in the water.

Mr. KLEMOW. We have. We have two wetlands that are in place. The first was a demonstration site and that was about one-third of an acre and that was just to show that the wetlands can be used to removed iron in the anthracite region. That has never been shown before.

But right now probably the best site that we have is the second site which is the one that's located again in Hanover Township. And for that one we're actually pumping water up out of the mines because hydrologically we just couldn't get the wetlands down stream—in fact, again when you talk about some of the problems with legislation and the current rules, we have an idea for putting the wetland actually next to an existing crater and actually we have lessons of the army core of engineers and the Pennsylvania Department of Environmental Protection—but we just felt that doing the permitology on the whole thing would take maybe two to 3 years that we just didn't have so we decided to go a slightly different location uphill and therefore we have to pump the water uphill. Basically we're pumping 500 gallons per minute. And the thing that is interesting is that we're directing the water through an aeration system—it's never been attempted before—which forces oxygen into the water and that gets the chemical reaction to go a lot quicker. And basically what we do is we get the iron to chemically oxidize and so once it's oxidized, we filter it through a bed of plants in the wetland and the plants are very, very good at removing the iron.

So the thing that was interesting is that we didn't really know when we started this project—when we turned on the switch, you know, last April or May I guess it was—would it be 5 percent successful, 50 percent, you know, 80 percent successful, and over the past 5 months I've had a student take readings on a monthly basis and we've been removing, as I say, somewhere between 96 to 98 percent of the iron which again accounts for about 300 pounds of iron per day.

The CHAIRMAN. You were going to do this next to a creek? You were going to do that but there was some question about the permit process?

Mr. KLEMOW. We were concerned about the permitology possibly holding us up.

The CHAIRMAN. Second, is the creek contaminated now with the iron, et cetera, et cetera?

Mr. KLEMOW. Yes, and the answer is because we cannot treat all of the water coming out of the bore hole because we just don't have enough area.

The CHAIRMAN. It would seem to me if you could expand that area and treat that area with your methodology we ought to be able to expedite the permitting process. To me this makes more sense than putting an artificial project in.

Mr. KANJORSKI. Mr. Chairman, if I may add—this is an excellent point. When you do this comprehensively by getting an inter-agency agreement on the Federal level and on the state level, you will be able to put these people right into the spot so you won't go through what we call the malaise of bureaucracy of permitting. And instead of wasting years and thousands and thousands of dollars, these people can go right to work and solve the problem. They have the technology to do it.

The CHAIRMAN. Can we make up a larger area to take the water we want—.

Mr. KANJORSKI. Yes.

The CHAIRMAN. What we want to do is purify the water. Or not purify it. We want to take the best of it so the good stuff.

Mr. KLEMOW. Right. But we don't just have the money right now to do it. There's no agency I know of to pay for it.

The CHAIRMAN. Tim, do you have any questions?

Mr. HOLDEN. No.

Mr. SHERWOOD. Thank you, Gentlemen.

The CHAIRMAN. I have been very, very impressed. I think that we ought to explore this more to see if we can't do something along those lines to get the water clean. My interest, for your information, is primarily the water and the municipalities. And one other question, you talked about the conservancy lands. Now, who owns that?

Mr. KANJORSKI. Earth Conservancy.

Mr. ROGERS. It's a nonprofit organization.

The CHAIRMAN. What are you going to do with the land if you reclaim it? Is it just going to go wild or are you going to let it be available for the communities?

Mr. Rogers. Well, the organization started with a very extensive land use planning. They're going to preserve it and I think about 10,000 acres in open space for recreational purposes. Some of it is being used for industrial development or residential development. Always the objective is to convey the land back depending upon who the owner will be. So in the case of industrial development, it's to convey it to the local chamber of the municipality so that industrial development can occur on that section but that for the 10,000 acres that will remain open space.

Mr. KANJORSKI. They are in the process now of building a 2,000 acre multipurpose park and that will take the industrial parks, the technical sites, both housing and the first really comprehensive industrial—.

The CHAIRMAN. And that will help support the other 10,000 acres.

Mr. KANJORSKI. You bet it will.

Mr. KLEMOW. In my essay I discuss smart reclamation at present, we find a site, we level it and sow it with grass seed. I

think what we do need to do is have a better method of trying to target what the ultimate use of the site is and then directing the restoration effort toward whatever the ultimate site is and that is where GIS is really going to help us.

Mr. KANJORSKI. And Earth Conservancy, Mr. Chairman, has been an operating organization for about 6 years now so really it's a model taking 17,000 acres of land and doing many different things with it to prove all the things that we're talking about that we want to do comprehensively on 120,000 acres. We pretty much have a feel and an experience now of 6 years of how to do this, everything from making wetlands to reclaiming the mine lands into industrial park areas into making recreational preserve areas. It's all there and it's already been done so what we're really talking about is saying let us build off that model and multiply that model six or seven times and we will be able to effectively and efficiently reconstruct the anthracite coal fields of Eastern Pennsylvania in their entirety within a 25 year period.

The CHAIRMAN. I'll make a suggestion, and it's probably out of whack here, but you might want to consider selling some of my sportsmen groups on this idea for wildlife rehabilitation too. I know that some people say that's a bad word. I hope it's not in Pennsylvania.

Mr. KANJORSKI. No. We're building a duck area.

The CHAIRMAN. A duck area, deer, rabbits, squirrels, whatever you want to do, because then you get another group of—category that's supporting what you're doing, I've noticed there's been a tendency especially on the Federal level to downgrade that effort and I don't think—that's not only not incorrect but I think it's a terrible way to help what we call managed land. If you're going to have it, you ought to get more support because—that's just a comment.

Mr. KLEMOW. If I may, in the western part of Pennsylvania, there's actually an organization called AMD and ART. They incorporate large landscape architecture techniques into mine drainage restoration projects. They actually create what they call "places" where people can actually go and want to be at for recreation and hiking and other things like that. Again, I think that's something we ought to be looking at in this area.

The CHAIRMAN. Well, again, thank you gentlemen. It's been very informative. I thank the audience, those that stuck with us for these 3 hours. And I am going to congratulate my Members for being on time. Mr. Sherwood, thank you for doing this. Mr. Kanjorski, thank you very much. And, Mr. Holden, thank you very much. Pennsylvania, I want to thank you—or the Lackawanna area, we're in good shape so thank you very much. This Committee—the record will be open for 10 days if anybody would like to submit any written testimony to the Committee.

[Whereupon, the committee was adjourned.]