

**ENVIRONMENTAL PROTECTION AGENCY'S
FISCAL YEAR 2001 BUDGET REQUEST**

HEARING
BEFORE THE
**COMMITTEE ON
ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE**
ONE HUNDRED SIXTH CONGRESS
SECOND SESSION

—————
FEBRUARY 23, 2000
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ENVIRONMENTAL PROTECTION AGENCY'S FISCAL YEAR 2001 BUDGET

WEDNESDAY, FEBRUARY 23, 2000

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
Washington, DC.

The committee met, pursuant to notice, at 10:40 a.m. in room 406, Dirksen Senate Office Building, Hon. Robert Smith (chairman of the committee) presiding.

Present: Senators Smith, Inhofe, Thomas, Chafee, Lautenberg, Crapo, Reid, Voinovich, and Warner.

OPENING STATEMENT OF HON. BOB SMITH, U.S. SENATOR FROM THE STATE OF NEW HAMPSHIRE

Senator SMITH. The hearing will come to order.

Good morning, Administrator Browner.

Ms. BROWNER. Thank you.

Senator SMITH. We watched you on the Agriculture Committee and are glad you finished up pretty close to the time that we had anticipated.

Ms. BROWNER. Thank you.

Senator SMITH. Today's hearing serves two purposes. First, we will receive testimony from Administrator Browner on the President's fiscal year 2001 budget, the request for the EPA. Second, this is the first step in the biannual EPA authorization process, which is new for the committee that we are planning to start next year, to comprehensively review programs within EPA's jurisdiction, as well as EPA's funding priorities. It will be the first of several EPA oversight hearings. Throughout the year we will be working with the subcommittee chairmen to conduct followup, detailed hearings on specific EPA programs.

Upon the completion of those subcommittee hearings, each subcommittee chair will then report to the committee an authorization bill for fiscal year 2002 and 2003 covering their respective areas of jurisdiction.

The full committee will then integrate the individual subcommittee bills into a final bill that establishes the EPA program.

With a budget exceeding \$7 billion a year, reporting a biannual authorization bill is the most effective way for the Authorizing Committee, in my view, to examine EPA's priorities across all the programs and target limited resources in those areas where they can achieve the greatest results.

So for the upcoming fiscal year the President has requested approximately \$7.3 billion in discretionary spending for the Environ-

mental Protection Agency. After reviewing next year's budget request, I do have some concerns, and I would just like to highlight a couple of those before yielding to my colleagues.

Year after year, the EPA requests funding for numerous unauthorized programs, sometimes at the expense of programs that directly benefit the States' and the EPA's core programs. One example of this is this year's funding request for the clean water State revolving fund. The Administration request for the SRF is \$550 million below last year's enacted level, and the clean water SRF is a proven program that has been extremely successful helping communities comply with the numerous and expensive regulations imposed by the Clean Water Act.

I hear from my own constituents in New Hampshire, as I am sure my colleagues hear from their respective States, that it is more important than ever to make sure that the clean water SRF is adequately funded, because the majority of the wastewater facilities are at the end of their design life, and so reduced funding will mean less clean water in those communities.

Second, I am concerned with a decrease in the requested funding for the National Institute of Environmental Health Science. This is the sound science risk assessment portion of the budget, in my view, and I hate to see that being cut back. This will hinder the development of cost-effective Superfund programs, delay new understanding of health effects, and the development of innovative technologies, which I think ultimately are going to resolve many of our environmental problems.

I am also concerned with the significant number of unauthorized programs, or "EPA initiatives," as they are often called, that are allocated funding. Some may be good, some may not be, depending on one's view. But the Administration requests, for example, funding for a number of these initiatives. They include a clean air demonstration program, a high-production volume chemical testing program, and the Better America Bonds initiative.

Some of these initiatives, such as these new initiatives, such as brownfields program, for example, I support, but we must recognize that they compete with core statutory responsibilities, and I think we need to try to get a balance here.

The extensive oversight process that the committee will engage in this year should focus EPA's resources in a manner that ensures that the American taxpayer is getting the biggest bang for the buck.

In my view, that means EPA must first meet its core statutory obligations, and, second, to the extent that EPA has this statutory authority to exercise discretion in allocating resources, they must do so in a manner that will maximize risk reduction for the greatest number of citizens.

So I want to take this opportunity to welcome Administrator Browner and the EPA officials who have accompanied her here today and thank them for coming.

Let me move to my colleagues on the committee. Senator Lautenberg has just arrived. While he is collecting himself, I will turn to Senator Inhofe.

Senator INHOFE. No statement, Mr. Chairman.

Senator SMITH. OK. Senator Thomas.

**OPENING STATEMENT OF HON. CRAIG THOMAS,
U.S. SENATOR FROM THE STATE OF WYOMING**

Senator THOMAS. I will be very brief. Thank you, Mr. Chairman. I know you and I and all the members of this committee want to ensure that EPA's budget priorities reflect the programs that Congress has entrusted to the Agency.

In previous years, the budgeting contained funding for several initiatives, which I would question whether or not they actually reflect Congressional intent. For this year, the Administration is requesting the largest increase in the operating budget, while at the same time cutting some funds for the popular and successful State programs. So I certainly hope that we can focus some on that.

Thank you very much. I look forward to hearing about the budget.

Senator SMITH. Senator Lautenberg?

**OPENING STATEMENT OF HON. FRANK R. LAUTENBERG,
U.S. SENATOR FROM THE STATE OF NEW JERSEY**

Senator LAUTENBERG. Thanks very much, Mr. Chairman. I heard a 9-1-1 dial from EPA and I came rushing over here. But I do not think that EPA needs any help, Mr. Chairman.

I thank you for the opportunity to review the EPA budget and the Authorizing Committee. I think it is fair to say that, even if we have occasional disagreement on some things, that we do listen attentively and we want to try to do the best we can by the environment.

As you know, Mr. Chairman, I sit on the VA/HUD Appropriations Subcommittee, which is under the capable leadership of Senator Bond, and we annually review the same issues that we are going to hear about today using this kind of a sequence.

Appropriators, however, sometimes view matters in a different light than authorizers, and I think it is useful to use both perspectives in reviewing the Agency's critical work.

Mr. Chairman, I am particularly interested in providing adequate funding for EPA's core programs. We sometimes get so distracted by the newest hot issue that we lose sight of the programs mandated by statute that are the backbone of the Agency.

Whether we are cleaning up Superfund sites, updating water discharge permits, reassessing pesticide tolerances, or setting standards for toxins in the air, EPA's core programs are a tremendous benefit to the health of our constituents, and we must never lose sight of those.

So, Mr. Chairman, I look forward to what I assume will be a useful, excellent presentation by the EPA administrator. We are doing the right thing here by hearing from EPA concerning the budget, and I look forward to the testimony.

Senator SMITH. Thank you, Senator Lautenberg.
Senator Crapo?

**OPENING STATEMENT OF HON. MICHAEL D. CRAPO,
U.S. SENATOR FROM THE STATE OF IDAHO**

Senator CRAPO. Thank you, Mr. Chairman. I will be brief, also. I was interested to note that I came here prepared to talk about several of the issues that you, yourself, raised—the Clean Water

Act State Revolving Fund and the NIEHS and research funding, in general. And I also will have some issues on the Safe Drinking Water Act, which fall within the jurisdiction of my subcommittee.

I appreciate the opportunity for us to review these matters, because I think it is very critical that the Authorizing Committee focus very carefully on these budget items, and I just wanted to let Administrator Browner, Mr. McCabe, and Mr. Ryan know those areas of interest.

Senator SMITH. Thanks, Senator.

Senator Inhofe?

**OPENING STATEMENT OF HON. JAMES M. INHOFE,
U.S. SENATOR FROM THE STATE OF OKLAHOMA**

Senator INHOFE. Thank you, Mr. Chairman.

Madam Administrator, this may be the last time that you will be before this committee, and I wanted to kind of review—

Ms. BROWNER. You are not going to have me back this year?

Senator LAUTENBERG. That is why I said 9-1-1.

Senator INHOFE. Yes, 9-1-1. I never get those calls.

Anyway, I would like to review a few things that have happened during the years that you have been in office.

In 1993, I remember when President Clinton made his State of the Union message. He said that he said that the Superfund program was broken and legislation would be necessary to fix it, and then in 1995 the Administration said legislation was no longer necessary and you announced your polluter pays principle, although you failed to explain that you did not actually have to be a Superfund polluter to pay, but just have deep pockets. And so I will not repeat my story of Mill Creek Lumber and Jimmy Dunn, but Oklahoma City car dealers were finding themselves in a position to make large payments when, in fact, they were not the ones who were the pollutants.

In 1993, you announced that there would be no more bean counting. This was a term that was used to talk about the number of finds, the number of enforcement actions, the number of lawsuits that were filed, and yet this last year you filed more lawsuits, enforcement actions, and fines than you had in any other year.

I have been very much concerned about the Administration's attitude toward lawsuits and consent agreements that we have talked about before. The Natural Resource Defense Council v. EPA, the Environmental Defense Fund v. EPA, the Sierra Club v. EPA—all of these were—you entered into consent agreements. There is even some discussion that we may have even paid for some of these, while at the same time lawsuits from the American Truckers Association, Michigan v. EPA, Appalachian Powers v. EPA, you announced that the EPA would fight the cases all the way to the Supreme Court.

I see this as rewriting laws through consent agreements, and probably that would be covered when we get into the Clean Air reauthorization next year.

And last I might mention that in the State of the Union message this time the President was talking about the booming economy and all the progress that has been made there, and yet a lot of these enforcement actions have gone to these companies that are

accountable for and these industries that are accountable for the fine economic environment that we have today.

So I am concerned about enforcement. I am concerned about getting something done meaningful on such things as Superfund. But it appears that we will probably have to wait to get some of these meaningful things accomplished by this committee.

So I look forward to your testimony and working with you.
[The prepared statement of Senator Inhofe follows:]

STATEMENT OF HON. JAMES M. INHOFE, U.S. SENATOR FROM THE STATE OF OKLAHOMA

Ms. Browner, since this is probably your last hearing before this Committee, I wanted to spend just a few to review some of the environmental issues over the last 7 years, as we in Congress take a hard look at your budget for fiscal year 2001.

On Superfund

In 1993, President Clinton announced in his State of the Union speech that the Superfund program was broken. Legislation was necessary.

In 1995, The administration said legislation was no longer necessary, and you announced the "Polluter Pays Principle" Although you failed to explain that you didn't have to actually be a Superfund polluter to pay, you just need a deep pocket.

In 1996, You took credit for all of the cleanups that occurred during the Reagan/Bush years.

In 1999, You began looking for excuses as to why cleanups have actually slowed down in the 1990's.

On Enforcement

In 1993, The Administration announced consolidation of the Compliance groups out of the Program Offices and into one large Enforcement and Compliance Office for better coordination.

You announced no more bean counting.

In 1999, While the Air Office has spent the last 6 years rewriting the New Source Review regulations because they are unclear; apparently in a well coordinated effort the you and Janet Reno announced lawsuits using the same old unclear regulations.

This year, The EPA Enforcement Office announced that the beans were up in every enforcement category.

On the EPA Budget

Over the last several years you have decried the so-called "Congressional earmarks" for specific programs around the country, including the full-funding of Clean Water Act State Revolving Fund.

In 1999 and this year, You requested \$100 million for the Clean Air Partnership Trust Fund Slush Fund for undefined specific programs around the country.

On Lawsuits

NRDC v. EPA

EDF v. EPA

Sierra Club v. EPA

The EPA settled lawsuits, and entered into consent agreements,

American Truckers Assoc. v. EPA

Michigan v. EPA

Appalachian Powers v. EPA

You announced that the EPA would fight the cases all the way to the Supreme Court.

A Final Note On The EPA Budget and The President's State Of The Union

Finally, last month during the State of the Union, President Clinton said we have proved that you can grow the economy and clean up the environment at the same time.

I agree. However, your Agency is trying to prove otherwise.

Your enforcement office has filed lawsuits against industry for alleged Clean Air Permit violations, saying that over 95 percent of companies have violated their permits. They have been threatened with hundreds of millions in fines. These violations affect not only the utilities and refiners, but also the telecommunications industry, computer industry, and traditional manufacturers, the backbone of our thriving economy.

The number one piece of evidence your enforcement office is using is the production growth over the last 10 years, which is our strong economy. Where most people see economic growth, your enforcement people see targets for fines.

You can't have it both ways. If your enforcement people are right, then you and President Clinton are wrong, and future economic growth will be jeopardized.

Senator SMITH. Senator Chafee?

**OPENING STATEMENT OF HON. LINCOLN CHAFEE,
U.S. SENATOR FROM THE STATE OF RHODE ISLAND**

Senator CHAFEE. Thank you, Mr. Chairman.

Thank you for conducting this important hearing on the President's fiscal year 2001 budget request for the Environmental Protection Agency. I would like to extend my appreciation to Administrator Browner for being here today.

As chairman of the Subcommittee on Superfund, Waste Control, and Risk Assessment, I am particularly interested in hearing your testimony regarding funding for Superfund, brownfields, underground storage tanks, and the Resource Conservation Recovery Act.

In today's atmosphere of limited resources, we must ensure that every dollar spent returns the highest yield possible.

I am especially interested to hear how EPA plans to ensure that cleanup activities continue at an acceptable rate.

In addition, I am eager to hear testimony on EPA's efforts to enhance brownfields redevelopment. This is an issue with important implications for Rhode Island, and I commend Administrator Browner on the focus EPA has placed on brownfields.

I would also like to take this opportunity to express my concern about the proposed \$550 million cut to the clean water revolving fund, which would have adverse impacts on Rhode Island and many other States. This is a program that has worked incredibly well, and is supported by virtually all the stakeholders.

Last year, Congress refused to cut this important program, and I urge my colleagues to once again protect funding for the clean water SRF.

Thank you, Mr. Chairman.

Senator SMITH. Thank you, Senator Chafee.

Senator Voinovich.

**OPENING STATEMENT OF HON. GEORGE V. VOINOVICH,
U.S. SENATOR FROM THE STATE OF OHIO**

Senator VOINOVICH. Thank you, Mr. Chairman.

Thank you, Mr. Chairman, for conducting this hearing on the Environmental Protection Agency's fiscal year 2001 budget. I wanted to start off by saying that this Nation has seen dramatic improvements to its environmental quality, thanks in part to the environmental programs of the USEPA and their partners in State government, although some State EPAs have complained that the EPA could have been a little better partner to them during the last several years.

I am glad to have Administrator Browner here to discuss EPA's budget. While the Administration is proposing a slight decrease in funding for EPA next year, I am concerned, as other members of this committee, that there is an 11 percent increase for operating programs.

We face limited budgets at all levels of government, and it is important that we use our limited resources wisely.

I am also concerned that the Administration is proposing new initiatives when some of our current environmental needs are going unmet. As we consider the last budget of this Administration, I am concerned that, instead of building on initiatives begun in this Administration and giving priority to unmet needs, the Administration is proposing new initiatives.

When I was mayor of Cleveland and Governor of Ohio, in my last year in office we concentrated on finishing what we had started, rather than beginning new initiatives that we would not be around to implement.

I believe that the EPA should be determining what needs have gone unmet, which performance goals still need to be achieved, and then determine how to go about meeting those through its current programs, instead of proposing new initiatives. This Administration needs to focus on the continuing challenges that we face.

For example, I see one of EPA's primary goals is to expand the public access to information. In fact, the Administration seeks a \$38 million fund to expand the right-to-know programs, mostly for your integrated information system. I applaud that, because in too many instances States are responding to environmental groups based on information that is not totally correct.

For example, in our State there was an allegation that 14 of 22 major Ohio factories had violated the Clean Water Act at least once during the past 2 years. They went on to say the EPA had taken only one enforcement on one facility, when, in fact, there were nine enforcement actions. So the information needs to be improved.

I strongly believe our challenge in the new millennium is to work harder and smarter and do more with less and spend our resources in a way that best protects the environment and the health of our citizens.

We need to do a better job of setting environmental priorities and spending our resources wisely.

This has already been mentioned, but, for example, with the sorry state of our Nation's wastewater and treatment facilities, I am disappointed that this Administration has not sent up a reauthorization of the clean water SRF program, which expired at the end of fiscal year 1994. And the failure to reauthorize the program sends an implicit message that wastewater collection and treatment is not a national priority.

In addition, the Administration proposes to allow states to reserve up to 19 percent of the clean water SRF for capitalization grants to provide grants of no more than 60 percent of the cost of implementing nonpoint source and estuary management projects.

Now, while these projects are very worthwhile, the health and well-being of the American public depend on the contract of our Nation's wastewater collection and treatment systems. The cost of poor environmental infrastructure needs to be addressed. Too much time and energy are spent on boutique projects that make good for public relations. Perhaps the EPA is following the advice of a former Governor of Ohio, who said to me 1 day, "George, never put anything in the ground, because the people do not see it."

As March, 1999, needs gap study found, the sanitary sewer overflow needs in the 1996 clean water needs survey were grossly underestimated. Originally estimated at total of \$10.3 billion, today's sanitary sewer overflows need an estimate of \$81.9 billion, bringing the total national water infrastructure needs to more than \$200 billion.

Neither the \$139.5 billion nor the \$200 billion EPA estimate reflects replacement costs. These are costs that are there. We are not even looking at replacement costs.

Clearly, these incredible needs should be addressed.

Moreover, I am very concerned. The Administration budget proposes only \$800 million for the clean water SRF program—and I think that Senator Chafee has made that point—for fiscal year 2001, a \$550 million reduction from the fiscal year 2000 enacted levels of \$1.35 billion.

I believe that in the last budget of this Administration we ought to go back to basics that reflect the unmet environmental needs of this country and not undertake new initiatives that may not be embraced by the next Administration.

Thank you.

[The prepared statement of Senator Voinovich follows:]

STATEMENT OF HON. GEORGE V. VOINOVICH, U.S. SENATOR FROM THE STATE OF OHIO

Thank you, Mr. Chairman for conducting this hearing on the Environmental Protection Agency's fiscal year 2001 budget. I want to start off by saying that this nation has seen dramatic improvements to its environmental quality thanks in part to the environmental programs of the U.S. EPA as well as our many state environmental agencies.

I am glad to have Administrator Browner here to discuss EPA's budget with us. While the Administration is proposing a slight decrease in funding for EPA next year, I am concerned that there is an 11 percent increase for operating programs. We face limited budgets at all levels of government and it is important that we use our limited resources wisely. I also am concerned that the Administration is proposing new initiatives when some of our current environmental needs are going unmet.

As we consider the last budget of this Administration, I am concerned that instead of building on initiatives begun in this Administration and giving priority to unmet needs, the Administration is proposing new initiatives. When I was Mayor and Governor, in my last year we concentrated on finishing what we had started rather than beginning new initiatives that we would not be around to implement.

I believe EPA should be determining which needs have gone unmet, which performance goals still need to be achieved, and then determine how to go about meeting those through its current programs. Instead of proposing new initiatives, this Administration needs to focus on the continuing challenges we face.

For example, I see one of EPA's primary goals is to continue to expand the public's access to information. In fact, the Administration seeks an additional \$38 million to expand right-to-know programs, mostly for the Integrated Information Initiative.

Recently an environmental group issued a report based on information that it received from EPA's Sector Facility Index Project that 14 of 22 major Ohio factories have violated the Clean Water Act at least once in the past 2 years. It went on to say that Ohio EPA has taken enforcement action at only one facility. However, in reality, Ohio EPA is taking or has already taken action at 9 of these facilities not just one. I would say that the information provided on this database is grossly inaccurate.

The public does have a right to know about issues affecting their environment including the information that an agency is using to make decisions during the rule-making process. However, currently there are no assurances that EPA is providing accurate information. I think EPA first needs to figure out how to step up efforts to ensure that the information they are putting out there for the public is correct. Otherwise the states' ability to enforce these programs is unnecessarily called into question.

I strongly believe our challenge in the new millennium is to work harder and smarter and to do more with less and spend our resources in a way that best protects the environment and the health of our citizens. We need to do a better job of setting environmental priorities and spending our resources wisely. We should not do things simply because of appearances.

In addition, we need to ensure that effective programs are not being undercut by well-intentioned policies and regulations that lack scientific backing. Quite frankly, I believe that EPA's policies often run counter to the efforts, and even the mission, of other Federal agencies. For example, the Federal Government has a number of effective programs that promote education, safety and economic development, such as HUD's empowerment zones, welfare reform, urban school programs and transportation projects. However, at the same time EPA is thwarting these efforts through policy decisions that are not always based on sound science and that undermine efforts to revitalize our urban areas. There needs to be a coordinated effort among agencies, in fact even within EPA itself, to ensure that a program's success is not being undercut by unnecessarily restrictive regulations that do not increase protection of public health or the environment.

Two of my top legislative priorities are handled within EPA's Office of Water and Office of Air. For example, I will shortly be introducing legislation to amend the Clean Air Act to add the same risk assessment and cost-benefit analysis provisions that we added to the Safe Drinking Water Act in 1996—the same provisions that the Administration supported. This will help ensure that reasonable and cost-effective rules are being set that have scientific backing so that we are sure that we are getting a real bang out of the dollars we are investing in the environment.

In addition to working for cleaner air, I am also working on improving the quality of our nation's water. Last year I introduced S. 1699, the Clean Water Infrastructure Financing Act of 1999. This bill will reauthorize the highly successful, but undercapitalized, Clean Water State Revolving Loan Fund (SRF) Program. The Clean Water SRF Program is an effective and immensely popular source of funding for wastewater collection and treatment projects. However, the condition of our nation's environmental infrastructure remains alarming.

With the sorry state of our nation's wastewater and treatment facilities, I'm disappointed that this Administration has not sent up a reauthorization of the Clean Water SRF program, which expired at the end of fiscal year 1994, and the failure to reauthorize the program sends an implicit message that wastewater collection and treatment is not a national priority.

In addition, the Administration proposes to allow states to reserve up to 19 percent of their Clean Water SRF for capitalization grants to provide grants of no more than 60 percent of the cost of implementing non-point source and estuary management projects. While these projects are very worthwhile, the health and well-being of the American public depend on the condition of our nation's wastewater collection and treatment systems. The costs of poor environmental infrastructure need to be addressed. Too much time and energy are spent on boutique projects that make for good public relations. Perhaps EPA is following the advice of a former Governor of Ohio who said "never put anything in the ground because the public can't see it."

A March 1999 EPA Needs Gap Study found that sanitary sewer overflow needs in the 1996 Clean Water Needs Survey were grossly underestimated. Originally estimated at a total of \$10.3 billion, today sanitary sewer overflow needs are estimated at \$81.9 billion, bringing the total national wastewater infrastructure needs to more than \$200 billion. Neither the \$139.5 billion nor the \$200 billion EPA estimate reflects replacement costs. Independent studies indicate that when 20-year replacement costs are added, the total wastewater infrastructure needs will exceed \$300 billion.

Clearly, these incredible needs must be addressed. Moreover, I am very concerned that the Administration's budget proposes only \$800 million for the Clean Water SRF program for fiscal year 2001, a \$550 million reduction from the fiscal year 2000 enacted level of \$1.35 billion.

I believe that in the last budget of this Administration we ought to go back to basics that reflect on the unmet environmental needs of this country and not undertake new initiatives that may not be embraced by the next Administration.

This country will not be well served by Federal policies and regulations that do not improve the protection of public health and the environment. I believe we also need to carefully review how taxpayer dollars are being spent, particularly when these funds are spent on programs that negate or overlap one another. I look forward to exploring these issues not only during today's hearing, but in future oversight hearings as well.

Thank you, Mr. Chairman.

Senator SMITH. Thank you, Senator Voinovich.

Administrator Browner, welcome. We look forward to your testimony and that of your colleagues.

**STATEMENT OF ENVIRONMENTAL PROTECTION AGENCY
ADMINISTRATOR CAROL M. BROWNER**

ACCOMPANIED BY:

**W. MICHAEL McCABE, ACTING DEPUTY ADMINISTRATOR
MICHAEL W.S. RYAN, ACTING CHIEF FINANCIAL OFFICER
MARGARET N. SCHNEIDER, DEPUTY ASSISTANT ADMINISTRATOR
FOR ENVIRONMENTAL INFORMATION
DIANE E. THOMPSON, ASSOCIATE ADMINISTRATOR, OFFICE OF
CONGRESSIONAL AND INTERGOVERNMENTAL RELATIONS
(OCIR)
ROBERT PERCIASEPE, ASSISTANT ADMINISTRATOR, OFFICE OF
AIR AND RADIATION
SUSAN H. WAYLAND, ASSISTANT ADMINISTRATOR, OFFICE OF PRE-
VENTION, PESTICIDES, AND TOXIC SUBSTANCES (OPPTS)
RICHARD FARRELL, ASSOCIATE ADMINISTRATOR, OFFICE OF POL-
ICY AND REINVENTION
J. CHARLES FOX, ASSISTANT ADMINISTRATOR, OFFICE OF WATER
TIMOTHY FIELDS, JR., ASSISTANT ADMINISTRATOR, OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSES (OSWER)
STEVEN A. HERMAN, ASSISTANT ADMINISTRATOR, OFFICE OF EN-
FORCEMENT AND COMPLIANCE ASSURANCE
NIKKI TINSLEY, INSPECTOR GENERAL
GARY GUZY, GENERAL COUNSEL**

Ms. BROWNER. Thank you, Mr. Chairman.

Let me begin by apologizing. I was testifying in another hearing this morning, which took a few minutes longer than they had thought it would take, and I apologize for being late to this very, very important hearing and to this very important committee.

Mr. Chairman, members of the committee, I am very pleased to be here today to present the Clinton/Gore Administration's budget request for the U.S. Environmental Protection Agency. Accompanying me here today are many of the Agency's senior managers, including Mike McCabe, the Acting Deputy Administrator, and our Acting Chief Financial Officer, Mike Ryan.

Mr. Chairman, I might just take a moment to congratulate you on your chairmanship and to say how much I look forward to working with you.

I might also say how much I admired your predecessor, Mr. Chafee. He was a model of bipartisanship on behalf of environmental protection, and he offered me some very wise and some sound advice at my confirmation hearing more than 7 years ago in which he said to me, "I want you to remember one thing, and one thing only: your job is to protect our environment. That is your job."

He was a great man and a person we enjoyed working with, and I know you will follow in his footsteps and lead this committee in the same bipartisanship manner as we look at how best to strengthen our public health and environmental protections for the people of this country.

The budget that we are putting forward today we believe achieves that goal. We have presented a budget that maintains fiscal discipline, while making essential investments in environmental priorities.

This Administration has repeatedly demonstrated that we can enjoy enormous prosperity. We are now experiencing the longest economic expansion in history. I think, if we cannot agree on anything else today, we can probably all agree on that.

At the same time that we are enjoying this economic prosperity, we have been very, very successful in implementing important environmental and public health protections.

Over this past 7 years of unprecedented economic progress, the Administration, working with this committee and many in Congress, has distinguished itself through unprecedented environmental progress.

The 1996 amendments to the Safe Drinking Water Act, were authored in this committee and then passed in the U.S. Senate with, I think, not a vote against them. We supplied the first-ever funding, \$2.3 billion loan program, for communities to upgrade drinking water systems. We have set up the first public right-to-know program for ensuring that all consumers of tap water know the source and the quality of their tap water. We have announced new measures to protect the health of 140 million Americans by strengthening protections from emerging threats in our drinking water, like cryptosporidium.

As a result of our joint efforts, this committee, in authoring the new Safe Drinking Water Act and our work with you to implement that new law, 89 percent of Americans now get tap water from drinking water systems that meet health standards. That is an increase of 6 percent since the standards went into effect in 1994.

In every area, this Administration, the Clinton/Gore Administration, has moved to provide this kind of common sense, cost-effective environmental protection.

We have tripled the pace of cleaning up toxic waste in the Superfund program. Senator Inhofe, we continue to believe that legislation would make that program a better program. We have simply been unwilling to support legislation which would undermine the responsibility of the largest polluters to pay their fair share.

We have been very, very clear that small parties should not be caught up in Superfund. In fact, through administrative reforms we have removed 21,000 small parties and we have done everything short of begging Congress to pass legislation to make it even easier for us to do that.

At the end of 1999, a total of 670 Superfund sites have been cleaned up. Of these sites, 515 have been completed since 1993. We are out in the communities getting these sites cleaned up and turned back over to these communities.

As a result of our efforts in the fight for clean air, some 43 million Americans today are breathing cleaner air. We have reduced emissions from autos and small trucks by 75 to 95 percent, and for the first time ever we have ensured that SUVs, minivans, light duty trucks will meet the same requirements, the same pollution requirements as other passenger vehicles, but doing it in a way that gives the individual companies the kind of management flexibility they need to meet pollution standards.

We have cut toxic air pollution from municipal combustors and other important source categories by 90 percent or more, and we

have unveiled new efforts to improve air quality in 156 national parks and wilderness areas.

At the same time, we have dramatically increased the public's right to know about toxic chemicals released into their communities.

Under the President's leadership, we have nearly doubled the number of chemicals that must be reported to communities and required over 6,000 new facilities to report releases of toxic emissions.

As a result, in the past decade toxic pollution has fallen by nearly 50 percent, partly as a result of simply giving communities and citizens in communities the right to know about the quality of the air they breathe, the water in their communities.

We have revitalized communities by accelerating the cleanup of brownfields, the abandoned or contaminated properties that we all know can be put back into commercial use.

Communities across America are gaining new hope, with nearly \$70 million in seed grants awarded to over 300 brownfield projects. These projects are creating jobs, they are expanding the tax base for local communities, bringing decaying areas of cities back to vibrant economic life.

Working with Congress, again, we passed the new Food Quality Protection Act, that, for the first time set pesticide safety standards that are protective of children. We have already taken action to significantly reduce special risks posed to children by limiting uses of two of the pesticides most widely used on foods found in the diets of our children.

And, while ensuring strong environmental protection, we have reinvented government in innovative ways to achieve greater environmental results at less cost.

Reforms by the Clinton/Gore Administration have eliminated more than 26 million hours of paperwork for business and communities, the equivalent of returning more than .5 million work weeks back to the private sector, at a cost savings to industry of \$800 million over the past 4 years.

The President's budget request, \$7.3 billion for EPA and \$2.2 billion for the Better America Bonds program, builds on and continues 7 years of environmental achievement under this Administration.

You are right, the budget does provide an 11 percent increase for EPA's core programs. This is where we do the work of setting the air standards, the water standards, the research, and food safety enforcement. This is the core environmental programs for the people of this country, and it is appropriate that funding for these programs should be increased. This is the largest increase in EPA's operating budget in the history of the Clinton/Gore Administration.

We are also requesting funds for programs such as the President's Clean Water Action Plan, a program designed to finish the job of cleaning up America's waters and restoring to full use our magnificent lakes, our rivers, our bays, our streams.

It provides for a new initiative—and this is a new initiative, but it builds on work over the last 7 years. It is an initiative to protect and improve one of our Nation's greatest shared treasures, and that is the Great Lakes.

This budget also provides for the President's program for cleaner waters across America, which for the first time targets individual waterways for cleanup plans tailored specifically to their needs. It provides new and additional funding to protect our waterways from pollutant runoff, the largest remaining threat to America's water quality.

This part of EPA's budget gives States the flexibility they need to fight polluted runoff. All of your States are telling us they need more money to fight pollutant runoff. We are asking in the appropriations bill for the ability to allow States the flexibility to use up to 19 percent of their clean water money, if they choose—they do not have to, but if they choose—for polluted runoff.

The President's budget also provides for a creative Clean Air Partnership Fund. The fund would promote reductions in air pollution, foster partnerships and flexibility between State and local governments with the private sector.

The President's budget provides necessary funding for one of the Administration's top environmental priorities, protecting children's health, including targeting such special threats to children as lead contamination. It is a completely preventable illness, and yet we still have millions of children in the United States today who suffer lead contamination, who experience lead poisoning.

Asthma is now the single-largest cause of childhood hospital admissions in the United States. We are here seeking funding to enhance protections for the children of this country against dangerous levels of pesticide residues.

The budget calls for continuing to expand the public's right to know, including—and I appreciate, Senator Voinovich, your comments in this respect—work with the States to develop a network of key environmental data.

We are seeking \$30 million in funding. More than half of that we would envision going to the States who desperately want to upgrade their system so that they have the kind of accurate information that is fundamental to the decisions that they need to be making.

We have worked with several States already in developing these programs. I think, Mr. Chairman, we offered a briefing to the staff of this committee to show you just how successful these programs can be.

These are not EPA-created programs, these are State-created programs, everyone from Louisiana to New Jersey, and we would be more than happy to make that available to anyone who might be interested.

The budget also calls for continuing our success at cleaning up the Nation's worst toxic sites. It calls for investing in our highly successful brownfields program. And we call again on Congress to work with us to fashion legislation, Better America Bonds. It is an innovative financing tool to give communities the resources they need to make their own decisions about preserving green spaces, addressing water pollution, promoting attractive settings for economic development.

In conclusion, Mr. Chairman and members of this committee, this budget builds on 7 years of proven success by the Clinton/Gore Administration. It builds on 7 years of developing the kind of pro-

grams that the American people want. It is a budget that will build strong American communities through partnerships and cooperation, through tough health standards, through innovative, flexible strategies. It is a budget that will ensure a strong economy and a healthy environment for this country.

We look forward to working with this committee. We look forward to answering any questions that you may have.

And I hope, Mr. Chairman, this will not be my last appearance before this committee, but that we will find much which we can work on and I will be able to return here and work with you in a bipartisanship manner to do the job the American people expect all of us to do.

Thank you.

Senator SMITH. Thank you very much, Administrator Browner.

I certainly know I speak on behalf of all my colleagues when I say thank you for your comments regarding my predecessor in this job, Senator Chafee, who certainly was respected and loved by all. It is not a very good circumstance to have to assume a chairmanship in this regard.

Let me just start. We will go with 6-minute rounds, including the chairman. I will make sure that I stick to my 6 minutes, as well.

In trying to address the environmental problems that we face, it seems to me that we would have to try to come up with some prioritization as to what is the worst environmental problem that we face in America and perhaps putting them down from one, two, three, four, right on down to the last theoretically.

In your view, what would be the top two or three environmental issues or problems facing America today, if you had to rank them?

Ms. BROWNER. I am happy to do that. Before I do that, I want to say something about ranking environmental problems.

I wish it were simple. I wish it were easy. It is driven as much by the science as it is by an individual's experience.

A mother raising her child in a lead-contaminated apartment in downtown Baltimore will tell you that is the most important environmental challenge she faces. An asthmatic growing up in an urban center will tell you air pollution is the most difficult problem they face. The citizens of Milwaukee, when faced with cryptosporidium in their drinking water, will tell you drinking water was the most critical problem they face.

There is never an easy answer, in terms of one, two, three, four. What we have to do at the U.S. Environmental Protection Agency is take the guidance of Congress, the laws that you pass—you sit in judgment of what is the most important thing when you reauthorize or you add another environmental public health statute—and implement them in the best of our ability in a sensible and a common, cost-effective manner.

When I look broadly across this country, the problems that I see—and I will not say one, two, three, but the problems that I see include clean water—yes, we have made a lot of progress, but we are not done, and there are real repercussions from the fact that we are not done.

And when we talk about water, I think we have to also remember not simply to talk—and this is not necessarily EPA's jurisdiction, but I think when we think about these issues, not simply the

quality of water, but the quantity, the availability. For growing areas in this country, this has been a challenge in the west for a long time, but in my home State of Florida, as you now know, Mr. Chairman, this is a real problem—not enough water. So water would be an issue.

Air. There is clear evidence that air pollution has very real, and in some instances permanent, health consequences. We can do better. We do not have to accept the levels of air pollution that far too many people breathe in this country. We do not have to accept the consequences. Acid rain in your own State is one of the consequences of air pollution.

There are solutions. There are cost-effective solutions. There are market mechanisms, including trading programs that can drive down the cost of pollution reductions.

And then I would say, from a global perspective, the challenge of global warming and climate change. It is, in some ways, the most difficult environmental and public health challenge the world will ever face, because once we are clearly in the thick of global warming, once the scientists can say there are a thousand data points, as opposed to a hundred, and we are clearly in the thick of it, it will be too late to fix the problem. Once the ocean rises, once the salt water is forced into our freshwater supplies in our coastal areas, we cannot reverse it.

So, from a global perspective, climate change. It will be very, very hard to solve. It will take all of us probably the rest of our lives to even begin to address.

Senator SMITH. Well, thank you for your candor in prioritizing those priorities. Let me respond. We deal with on this committee—roughly \$7.5 billion. If you add the other fund, it is about \$9.5 billion. We know that other moneys are spent.

Ms. BROWNER. Right.

Senator SMITH. They are spent in the private sector, they are spent by States and local communities to clean up environments, so we are not saying that \$7.5 billion is the only money that is spent here.

Ms. BROWNER. Right.

Senator SMITH. In looking at the budget, you have about 38 percent of your budget for water, which I think would match your statement if you say water is the first priority, so I think you have hit that. Second, though, at about 20 percent is waste.

Ms. BROWNER. Yes.

Senator SMITH. And air is only 11.5 percent, which, interestingly, the percentage of air is less in terms of the \$9.5 billion that we are talking about or \$7.5 billion, is less than the operating expenses of the EPA, which is 13.8 percent.

Ms. BROWNER. Yes.

Senator SMITH. So, when you break these things down, to see that sometimes the priorities we express—for example, you mention lead and exposure to children. That is \$68 million out of a—well, it is not even all lead. So sometimes the priorities do not match the dollars.

Ms. BROWNER. And, if I might respond, Congress never decided to create a loan program for air pollution. That was a decision Congress could have made. We are, in fact, asking for a modest part-

nership fund, which Congress chose not to support last year. We hope you will this year.

But the big difference between air and water is simply—and I support this decision—a decision made by Congress that the Federal Government would become a partner, a financial partner in the solutions, but Congress has never made that decision about air pollution.

The vast majority of air pollution reductions that occur, occur because of expenditures in the private sector, in large measure. I mean, we do some research and development, and we develop new technologies which are then purchased, installed, and managed by the private sector. That is a fundamental difference that Congress made, and the budget does have to reflect those differences in the statutes.

You know, if everyone could start over again and we could simply say, “OK, we have made a lot of progress. There are no environmental statutes. It is zero-based funding. What are the environmental statutes we would create? What are the programs we would create? And then how would we allocate funds,” I do not doubt that it would be a very, very different world. But we come to this with a huge amount of history and a lot of Congressional decisions, the vast majority of which I support.

Senator SMITH. Thank you. I will followup on that later.

Senator Lautenberg?

Senator LAUTENBERG. Thanks very much, Mr. Chairman.

Ms. Browner, I commend you for the statement that you just delivered. I think it is important to note the progress that has taken place.

I think some time in the past there was an automatic rejection of some of the programs as being wasteful, etc., etc., but when we hear about the number of sites that have been cleaned up and dealt with, it is a heartening thing for me.

As a matter of fact, I think you have done such a good job as EPA administrator, that if you leave here I am leaving here.

[Laughter.]

Ms. BROWNER. I am going with you.

Senator LAUTENBERG. Anyway, can you tell us about some of the changes in proposed—did you want me to stay?

Senator INHOFE. I was just commenting, it sounded like a prediction. But go ahead.

Ms. BROWNER. I would be happy to come back next year.

Senator LAUTENBERG. All right. You come back. I am coming back. I ought to tell the guys trying to get my seat.

The changes in proposed funding for Superfund, we have increasingly limited cleanup funds, and I think it important that we ensure that we have responsible parties performing the work to the maximum extent possible.

How would you describe the provisions in the Superfund budget request in terms of ensuring that we continue to make those who are responsible do the job they have to do?

Ms. BROWNER. I think one of the great successes of our administrative reforms was to move to a program of entering into agreements with the large responsible parties on the front end so that

not only did they share the financial responsibility, but they actually do the work under our supervision.

In the early days of the Superfund program, EPA would end up doing the work. We would go out and hire the people, have them do the work, and then we would try and get the company to reimburse the Government, and that had a whole set of challenges.

Increasingly, we have been able to move toward getting the responsible parties to actually handle the operations and cover the cost, and they have some flexibilities in terms of managing costs that we do not always have in the Federal Government, and that has certainly contributed to a lowering—almost 20 percent reduction in cost for cleanup.

I think it has also contributed to our ability to quicken the pace of cleanups. We are running now at about 20 percent faster in terms of getting these cleanups done.

Senator LAUTENBERG. Good. You know that I am particularly interested in the brownfields program, and I understand you are going to be designating ten showcase communities.

Ms. BROWNER. Yes.

Senator LAUTENBERG. When do you plan to do that, if I may ask? And tell me just briefly some of the successes about the brownfields program, because I think that there is a general regard for it, and I would like to maximize the opportunity to expand and extend that program.

Ms. BROWNER. This has been a hugely successful program. Each and every site has been different. Some of the earliest sites that we focused on, going back 5 or 6 years ago now, are completely cleaned up, they are completely redeveloped. They are contributing to the local tax base, everything from hydroponic tomato farms to a site I just visited in Baltimore which is now a large commercial area. Companies have relocated their headquarters to this location.

Showcase communities was an opportunity to bring together all of the Federal family. What we found, as we were out working at these sites with communities, is that sometimes it was not simply EPA's assistance they needed, but, perhaps with a little assistance from HUD or from someone else, they could do even more. And so showcase communities was announced by the Vice President, I guess 2 years ago, as an effort to bring together the Federal family.

We already have 16 showcase communities that are up and running, and we will be designating 10 more in October of this year.

In the meantime, Senator Lautenberg, just so you know, we are currently accepting applications for two other brownfields programs. One is the grants program, the site assessment program, which is sort of the traditional, the older program. Now we have a revolving loan fund program with funds up to \$500,000, that can go to a city, who then can loan it out, be repaid, and loan it out to other communities. We just got that program. Congress gave us authority about 18 months ago, and the first loans are now being made.

We will have another round of the site assessment type grants coming out probably in the next 2 months. There should be another round of those announcements. The revolving loan program is up and running. A second round of showcase communities is due in October.

Senator LAUTENBERG. I just got back from a trip to the South Pole, and I would encourage my colleagues to take that trip and see the National Science Foundation at work, but also to see the problems up front that we could potentially face—the things you talked about, the supply of fresh water, and the difference when the fresh water mixes with the seas.

This talk about rising levels of oceans is not just idle scare talk, and I would encourage you—it is a tough trip. Senator Voinovich and I have gone to a couple of hot spots, and this is one cold spot, George, I would recommend that you visit when you get a chance.

The work our people are doing is a site to behold. The dedication, the zeal of people who live in isolation, virtually, for months or sometimes a couple of years at a time, removed from all semblance of civilization—they look happy, for some reason.

The fact of the matter is that you are not just raising empty scares when you talk about that, and I commend you for your comments.

Thanks, The CHAIRMAN.

Senator SMITH. Thank you, Senator Lautenberg.

Senator Thomas?

Senator THOMAS. Thank you.

Let me go a little bit to the air quality thing. Carbon dioxide is not defined as a pollutant in the Clean Air Act. How much of your budget requests activities relating to CO₂ emissions?

Ms. BROWNER. The climate change request, which is, I presume, what you are asking me about, the total request is \$227 million. The base is \$103 million. In other words, for the climate change technology initiative, Congress funded last year at \$103 million and we are asking for \$227 million.

Senator THOMAS. But I am focusing more on the CO₂. You talked about priorities.

Ms. BROWNER. Yes.

Senator THOMAS. And CO₂ is not listed in the clean air budget proposal. How much money then do you spend on something—

Ms. BROWNER. We do not have regulatory programs, as I think you are well aware, focusing on greenhouse gases. What we have been doing is working in a partnership with the business community, working through technology initiatives.

But if what you are trying to ask me is if there is some regulatory—

Senator THOMAS. Yes, that is what I am trying to ask you. How much money do you spend on something that is not in your authority?

Ms. BROWNER. We do not work on programs not within our authority.

Senator THOMAS. I do not agree with you, and I do not think you do, either. You know that you work on CO₂ a great deal.

Ms. BROWNER. We do not have any effort underway to set any standard. We do not. We do work, as I said—and it is well known and we can give you the names of the companies we work with on voluntary energy efficiency programs. We do our scientific work through research and development. We do not have any regulatory effort underway at the Environmental Protection Agency on greenhouse gases. We do not.

[Additional information submitted for the record by EPA follows:]

ENERGY STAR PROGRAM FACTS

Over \$15 billion will be saved by U.S. companies and organizations thanks to investments already made through EPA'S ENERGY STAR programs.

The United States is home to 4,836 companies and public entities participating in Energy Star partnerships.

Over 8 billion square feet of U.S. building space are currently committed to the Energy Star Buildings and Green Lights partnership—an area 20 times the size of the office space in Manhattan.

371 Energy Star Labeled Product manufacturers are located in the United States.

Investments already made through the Energy Star program in the United States will prevent over 330 billion pounds of carbon dioxide (CO₂). This reduction in CO₂ emissions is equivalent to planting 45 million acres of trees—an area 37 times the size of the Grand Canyon.

Nitrogen oxide (NO_x) emissions will be reduced by 790 million pounds and sulfur dioxide (SO₂) by 1.6 billion pounds due to existing Energy Star investments in the United States.

Highlights

Great accomplishments in energy cost savings and pollution reduction have been made through the Energy Star program in each of the 50 states and the District of Columbia. There is tremendous potential in every state for even greater achievements. Attached are state summaries that highlight the accomplishments to date and the potential for further savings and pollution reductions in each state. [Note: State data is held in committee files.]

Market Potential

The United States has 77 billion square feet of Energy Star Buildings- upgradable floor space and an enormous potential for further using Energy Star products. If all available opportunities for profitable energy efficiency improvements were taken advantage of, by 2010.

- More than \$230 billion would be saved;
- 730 million metric tons of carbon equivalent (MMTCE) would be prevented;

EPA'S ENERGY STAR PROGRAMS

Energy Star Buildings and Green Lights Partnership

Energy Star Buildings and Green Lights is a voluntary partnership between U.S. organizations and the U.S. Environmental Protection Agency to promote energy efficiency in commercial buildings. U.S. organizations can save over \$130 billion by 2010 by becoming more energy efficient. To reach this potential, the partnership focuses on reducing energy use and improving building performance through the use of strategic energy management and more efficient technologies. EPA provides the participants with technical information, customized support services and other resources. EPA also provides the ability to benchmark individual buildings, and distinguish those buildings that demonstrate superior performance. Investments already made through Energy Star Buildings will save participants over \$9.5 billion and prevent 203 billion pounds of CO₂ from being released into the atmosphere. The program currently has over 3,200 participants, representing more than one out of every seven commercial square feet in America.

Energy Star Products

The U.S. Environmental Protection Agency and the U.S. Department of Energy (DOE) are working together to help consumers choose energy-efficient equipment for their homes and offices by awarding the Energy Star Label to efficient, high-quality products. These products save money because they use much less energy. For those with somewhat higher costs up front, the cost is quickly offset by energy bill savings. Manufacturers or retailers volunteer to place the Energy Star label on those product models that meet or exceed energy and performance criteria set by EPA and DOE. The Energy Star label now appears on more than 26 energy consuming products ranging from computers to refrigerators to televisions. The number of Energy Star qualified models across these products has grown to more than 3,400 in the past year. Energy Star products that have already been purchased will save consumers over \$7 billion and prevent 130 billion pounds of CO₂.

Energy Star Homes

The Energy Star Homes Program promotes voluntary partnerships with builders to construct residences that are at least 30 percent more energy efficient than the current Model Energy Code. The Program provides approved builders with a brand name label and preferred mortgage financing. Energy Star homes include such features as advanced insulation, tight construction, advanced duct sealing, high-performance windows, and high-efficiency heating and cooling systems and appliances. They cost less than ordinary homes because energy savings typically exceed the small increase in monthly mortgage costs from the improved energy features. The Program saves thousands of dollars over the life of a mortgage, increases the resale value of a home and reduces air pollution. The Energy Star Homes Program currently includes over 1,500 organizations and 6,600 homes.

Senator THOMAS. All right. I will not press that any further, but I am not talking just about regulatory programs. I am talking about priorities in your budget.

Ms. BROWNER. Yes.

Senator THOMAS. You mentioned, I think, in a previous hearing here, that EPA's proposed TMDL rule is not clear and causing confusion. Do you intend to withdraw that?

Ms. BROWNER. What I have indicated is that we have had the benefit of a tremendous amount of public input on our proposal, and we have every intention, as I just testified before the Agriculture Committee, of incorporating that.

It is a complicated proposal. We are the first to admit that. But, in terms of the actual program and the kind of flexibilities and the recognition of best management practices going on in States today, we think this program offers a huge opportunity to work with the States to help them meet the water quality standards, many of which the States, themselves, have set, and we will absolutely take into account all of the comments that we have heard as we make our final decisions, and hopefully put out a final program this summer.

Senator THOMAS. I asked Mr. McCabe about this a while back, and then you had some disagreement with the Department of Agriculture. Have you resolved that?

Ms. BROWNER. If you are referring to the letter that was sent by Under Secretary Lyons, Secretary Glickman appeared with me, or I appeared with him, before the Agriculture Committee this morning. I think you are aware. You were also there. But in Secretary Glickman's testimony—and I am going to paraphrase here, but I am sure there is a record of his testimony—he essentially said that the letter did not reflect his position; that he had not been aware of the letter; while some of the concerns and questions raised in the letter were questions that they were working with us to resolve, the letter did not reflect the Department's position.

Senator THOMAS. Well, I have had several responses, not all of which are the same, from the Secretary.

My point is that a program the Department of Agriculture was working on—nonpoint source, is doing some things, mostly incentive oriented. Here comes EPA to push that out of the way and say, "Here is what we are going to do, folks, instead, in the clean water regulations."

Again, we are talking about priorities.

Ms. BROWNER. Yes.

Senator THOMAS. And so——

Ms. BROWNER. Senator Thomas, if I might just point out, the budget that we are here discussing today does seek increases in funding, largely for the States' nonpoint source grants. We are seeking a \$50 million increase in funding. The current funding level is \$200 million, and we are asking Congress to increase that to \$250 million for the section 319 nonpoint source grants, which are extremely popular with States.

We are also asking for additional moneys for States as they do what they are required to do under the Clean Water Act in terms of the TMDL program. The base for Section 106 grants is \$115 million, and we are asking for an increase of \$45 million for the States.

So we do believe that these nonpoint source programs are very, very successful. That is why we are here asking for increases. We think these proposed goals partner very nicely with USDA programs and a number of industry best management practices type programs.

In fact, at the hearing this morning in the Agriculture Committee, I gave an example here in the Chesapeake Bay, where a reforestation of a riparian buffer zone, a stream bank, if you will, was reforested—about 60 acres. Already, they are measuring reductions in important pollutants, including, I think, a 4,000 pound reduction in nitrogen per year, a reduction in phosphorus.

So we are completely in agreement with you, and I said to you earlier that I thought that parts of your statement this morning were very, very helpful—that these kind of best management practices that are going on today in the field in many instances are the real tools and the key to solving remaining water pollution challenges in this country.

Senator THOMAS. The Agency has required the States to change what they were doing before. Will all 50 States be eligible for the money you are talking about now?

Ms. BROWNER. Yes.

Senator THOMAS. The 319 funds?

Ms. BROWNER. I think this is a complicated question for the rest of the committee because in Senator Thomas' State, unlike most of your States, they have not sought delegation from us of all of the authorities they are eligible for. We have tried to work with them.

Senator THOMAS. That is because the State was not willing to do all the things that you required them to do.

Ms. BROWNER. Forty-nine other States have. Anyway—

Senator THOMAS. Well, the point is this—

Ms. BROWNER.—we tried to work that out.

Senator THOMAS. You have got the 319 program, which you have asked for money for. It is questionable as to whether it should be there.

Ms. BROWNER. Yes, you do get the 319 money.

Senator THOMAS. And I want to make sure that it is done—if you are going to have partners, you need to be partners, not one dog and one horse kind of an arrangement.

Ms. BROWNER. But you are eligible for 319 and for the increase in funding for 319, which hopefully—

Senator THOMAS. That is an illustration, but I am talking about partnerships, and I hope that we think of partnerships as partner-

ships and not people in Washington telling what the partnership is going to be, and that has really been the issue.

Thank you.

Senator REID. Mr. Chairman, could I ask the committee's indulgence for a unanimous consent request?

Senator SMITH. You certainly can.

Senator REID. I ask unanimous consent that the statement that I prepared be made part of the record.

Senator SMITH. Without objection.

Senator REID. It basically does a lot of things, but indicates what a great job you are doing.

Senator SMITH. You are up, Senator Reid.

Senator REID. I am? I thought——

Senator SMITH. Are you finished?

Senator REID. Are there not people here ahead of me?

Senator SMITH. Well, we use the early bird rule, but we can switch back and forth.

Senator REID. I think I would not want to do that. I think I got here late and I think it should go to the people that have been waiting here.

Senator SMITH. All right. In that case we will go to——

Senator REID. You will allow me to put my statement in the record?

Senator SMITH. Certainly. Without objection, so ordered.

[The prepared statement of Senator Reid follows:]

STATEMENT OF HON. HARY REID, U.S. SENATOR FROM THE STATE OF NEVADA

Thank you Mr. Chairman for holding this hearing to review the proposed budget for the Environmental Protection Agency. I think we all agree that the work done by EPA to protect human health and the environment represents the preeminent environmental protection in the world. I know we all value EPA's efforts to safeguard and improve America's air and water quality and I appreciate this opportunity to discuss this budget request.

Thank you Administrator Browner for appearing here to testify in support of EPA's fiscal year 2001 budget request. First, I complement you on your visionary and tireless leadership at the helm of EPA. Your dedication to enhancing and protecting public health and environmental quality improves each of our lives and guarantees that we will leave a better planet to future generations.

The superb economic and environmental record of the Clinton-Gore Administration demonstrates quite clearly that we need not choose between economic growth and environmental protection. Over the past 7 years, this Administration has shown that meeting environmental and economic challenges are highly compatible goals. As a result, few people would dispute the observation that a healthy environment provides the foundation for a prosperous economy.

The fiscal year 2001 budget request includes funding for many valuable programs and initiatives. For example, the Better America Bonds (BABS) initiative represents a creative funding mechanism, which will help communities achieve their local environmental protection and conservation goals. Rather than mandating a standardized approach, the BABS program allows state and local governments to decide how to protect their air, water, and landscape while they develop their communities. For example, BABS would provide communities the flexibility to sponsor brownfields redevelopment projects or open space and parkland conservation. Last year, Senators Baucus and Hatch introduced legislation similar to the Administration's BABS proposal and I hope we will move this bill forward this year.

In light of our shared goal to improve air quality, I applaud the inclusion in this budget request of \$227 million for the Climate Change Technology Initiative (CCTI). The voluntary programs of the CCTI represent a common sense approach to improving our energy efficiency. In addition to protecting earth's climate, reducing U.S. energy use will reduce our dependence on expensive foreign oil supplies and improve our balance of trade. Some have criticized the CCTI because it would help us reduce our nation's greenhouse gas emissions. This criticism reflects the fact that some con-

fuse voluntarily reducing greenhouse gas emissions with implementing the Kyoto Protocol. The Kyoto treaty notwithstanding, a growing body of scientific evidence suggests that climate change poses a very real threat to the global environment. Failure to reduce our greenhouse gas emissions would be foolhardy.

Finally, I look forward to our upcoming discussions regarding EPA's proposed rule on total maximum daily loads. This rulemaking process is generating a great deal of discussion and I look forward to a final rule that ensures meaningful protection of our nation's lakes and rivers so that we will 1 day achieve the our long-standing goal of having all of America's waters fit for swimming and fishing.

Thank you again for holding this important hearing, Mr. Chairman. I look forward to working with you and the other members of the Committee to ensure that America continues to enjoy an increasingly healthy environment and vigorous economy.

Senator SMITH. Senator Crapo?

Senator CRAPO. Thank you very much, Mr. Chairman.

Administrator Browner, I again thank you for coming here today. I had a whole series of questions on TMDLs, which I suspect you have already gotten some at the Agriculture meeting and so forth, but, as you are probably aware, the subcommittee which I chair, the Fisheries, Wildlife, and Water Committee, will be holding a series of hearings on the TMDLs, and I will ask those questions at that time.

Ms. BROWNER. Thank you.

Senator CRAPO. I did want to let you know, though, that I share a lot of the concerns that you are hearing, and we are going to be conducting more oversight on that proposal.

Ms. BROWNER. Good.

Senator CRAPO. I would like to ask you first, you have heard from several of the members of the committee today about concerns with regard to the \$550 million reduction in the clean water State revolving fund. Why is the EPA proposing such a reduction in that fund?

Ms. BROWNER. We are carrying forward the same request that we made last year, and the reason is the same as last year.

We believe it is incredibly important to reauthorize the Clean Water Act and to modernize the funding, Federal funding to the States. We think that, through a reauthorization process we would see that the challenges today have changed. Senator Voinovich, I think you suggested that the Administration had not sent up an SRF reauthorization. In fact, we did, I think, in 1994 send up a comprehensive Clean Water reauthorization proposal.

I mean, the challenges as we understood them 10, 15 years ago are different than the challenges we have today.

We made a commitment at the beginning of this Administration that the Clean Water State Revolving Fund would revolve at \$2.2 billion in the year 2004. In other words, there would be \$2.2 billion to be lent out annually in the year 2004.

We are going to meet that commitment in the year 2002. We are meeting it earlier. And we think this gives us an opportunity now to work together in a bipartisan manner, and perhaps, Senator Voinovich, if we cannot do the whole Clean Water Act reauthorization—which would be our preference—but if that is not possible, then let us focus on the funding provisions and let us focus on what are the appropriate flexibilities that would help States meet clean water challenges as we understand them today but perhaps did not understand them previously.

Senator CRAPO. But why should we wait while we do reauthorize the Clean Water Act? I do not think there is any disagreement? Why should we wait when Congress is ready to give a higher priority to these infrastructure needs?

As Senator Voinovich indicated, we have \$130 to \$200 billion of infrastructure need.

Ms. BROWNER. Yes.

Senator CRAPO. Congress is willing to provide the resources for this, and yet the Agency is not asking for it.

Ms. BROWNER. We think the issue is not simply infrastructure needs. We think the clean water challenges go beyond infrastructure needs, and we would like to see changes in the funding programs give States the flexibility to meet the variety of challenges beyond the infrastructure.

Senator CRAPO. Well, we may be able to agree on that, but, as you said previously in your testimony, the law we have today is this process.

Ms. BROWNER. Actually, it is an expired law.

Senator CRAPO. Agreed. But you have a Congress that is ready to work with this. Why not take those resources where they are so badly needed?

You are not disagreeing that we do have the infrastructure needs, are you?

Ms. BROWNER. We are not disagreeing that there are significant water pollution problems that remain in this country. Absolutely not. We are simply saying, "Let us all get together. Let us look at the universe of needs, not just one segment of the needs, and let us structure a funding program to meet the universe of needs."

We are doing better by the States than anyone else ever did, and even more than we promised the States we would do. They are going to get their revolving money. It is going to be moving out at a higher level sooner than they ever imagined.

Senator CRAPO. Let me shift gears for just a minute.

You also indicated in your testimony that we could prevent—I cannot remember if you said all or a large part of the lead poisoning that occurs.

Ms. BROWNER. I said it is a preventable disease.

Senator CRAPO. It is a preventable disease. What are the major sources of the lead poisoning?

Ms. BROWNER. Most of the remaining challenges are in older stock housing.

Senator CRAPO. So it is basically the housing problem is the source of the—

Ms. BROWNER. Yes. We have done a good job of educating caretakers and parents about paint chips.

Senator CRAPO. Yes.

Ms. BROWNER. So they know that children should not eat even a chip of paint the size of a thumbnail. In some ways, lead dust is probably worse. It is insidious. If you open and close an old window or old door, the dust gets on the floor. The child plays on the floor. The children puts their hands in it and put their hands in their mouth. The lead dust is a major concern in older, urban areas, although other areas are of concern also.

I think in Baltimore they estimate in the urban center of Baltimore as much as 70 percent of their housing stock may be lead contaminated.

Senator CRAPO. And the dust is contaminated from what source?

Ms. BROWNER. The dust is contaminated by the lead paint that is on the windows.

Senator CRAPO. OK.

Ms. BROWNER. Lead in paint was banned in 1972, so construction post-1972 is not a problem.

Senator CRAPO. All right.

Ms. BROWNER. It is the pre-1972 construction. And there are really horrible instances where parents sanded the paint in their homes and poisoned their own children because no one told them about lead dust.

We have had a very aggressive program to work very closely with both landlords and realtors to notify parents as they are buying a home. Lead paint and dust continue to be a real problem.

And I just simply pointed out, as in a risk analysis, if you are living in one of these houses, I will tell you right now it is your number one environmental problem.

Senator CRAPO. That is a good point to make.

I have a series of questions on Superfund, but I will hold off and see if we get another round.

Senator SMITH. Senator Inhofe?

Senator INHOFE. Thank you, Mr. Chairman.

Ms. Browner, a few minutes ago you alluded to the clean air partnership fund or partnership trust, I guess, which you have requested funding for in the past, and last year I asked you for specifics as to what would be funded and what would be on that program, which I did not receive, but in your statement here I think you pretty much answered it. You said—and this is a quote, and I think this is what Senator Thomas was trying to get at, too. You said, “The fund will demonstrate smart, multi-pollutant strategies that reduce greenhouse gases, air toxics, soot, smog, to protect our climate and our health.” So you list greenhouse gasses first and climate before health.

Ms. BROWNER. Yes.

Senator INHOFE. Well, my observation on this is that you are making an effort to start implementing the provisions of the Kyoto Treaty by using this program, and I remember when Congressman Nolan Berger put his first amendment on the appropriation bill that—and I think this actually violates that amendment. That is my observation on it. Do you disagree with that?

Ms. BROWNER. Yes, with all due respect.

Senator INHOFE. All right. Would you say that if we were to fund that program, that you, specifically, would not use any of those funds for regulation of CO₂?

Ms. BROWNER. This program is designed to get multi pollution reductions. It is not designed to develop regulatory standards. It is a voluntary program.

Senator INHOFE. But you are talking about greenhouse gases.

Ms. BROWNER. But reductions, not regulations—

Senator INHOFE. You have answered the question. Let me ask—

Ms. BROWNER. They are two different things, with all due respect. A regulation is, for example, in the case of air pollution, a standard that is set which is then required to be met. That is a regulation.

Senator INHOFE. I know what a regulation is.

Ms. BROWNER. I know, but nowhere in this are we proposing a regulation. We are not proposing a regulation.

Senator INHOFE. Well, along the same line, last month the First Lady made an announcement in a speech in New York that if you elect her to the Senate that she will—I want to get the words right here—“would force the Senate to vote on the treaty,” referring to the Kyoto Treaty.

I do not very often agree with the First Lady, but in this case she made that statement and I agree with it. I think that we should be forced to vote on the treaty. But, unfortunately, the President has not yet sent the treaty to Congress for ratification.

Do you agree with the First Lady in wanting the Senate to vote on ratification of the Kyoto Treaty?

Ms. BROWNER. The Administration has been very, very clear that the President will not send the Kyoto Treaty to the Congress until the issues regarding developing countries and the work we are attempting to do within the restrictions of Congress with developing countries have progressed. Nothing in the Administration's position has changed on that.

Senator INHOFE. So you would not agree with her statement?

Ms. BROWNER. I am not familiar with her statement.

Senator INHOFE. Because she did not qualify that with developing nations.

Ms. BROWNER. I am not familiar with her statement.

Senator INHOFE. All right. Then let me ask you this question. You know, we have the COP program, the Conference of the Parties.

Ms. BROWNER. Yes.

Senator INHOFE. We just came back from one. You probably attended it.

Ms. BROWNER. No, I did not.

Senator INHOFE. You did not? And the next one is scheduled, but I do not know when. Never on the agenda has anything appeared that addresses developing nations on that issue. Now, in the United States, we have signed the treaty but we have not ratified it.

Ms. BROWNER. Right.

Senator INHOFE. But we are participating in the COP programs.

Ms. BROWNER. Yes.

Senator INHOFE. I think the last was COP-5.

Ms. BROWNER. That is right.

Senator INHOFE. Would you want to recommend that the issue be placed on the agenda? If not, why not? You continue to use as an excuse for it not to be sent it to the Senate for ratification the fact that it does not affect the developing nations. We are not getting it submitted for ratification, and so it is not ratified. It is not un-ratified, and yet Administration signed the treaty.

Do you support putting that on the agenda at one of the parties' meetings?

Ms. BROWNER. Yes. But I think two points it is important to note. The agendas for those meetings are the subject of their own

intense negotiations, of which the United States is one of many parties.

Senator INHOFE. But we are a major——

Ms. BROWNER. One of the many parties.

Senator INHOFE. We are a major, important player at those conferences. No question about it. And it would seem to me that we should just walk out if we are not going to be able to get this on the agenda, because it is something that needs to be resolved. We are in a dilemma today, and that is I think it goes without saying, if the treaty were sent to the Senate for ratification it would not be ratified.

That is why we need to address the developing nations issue.

Ms. BROWNER. We agree.

Senator INHOFE. And we, I think, should be in a position to do that. Would you try to make an effort to get that on the agenda from the Administration's perspective?

Ms. BROWNER. I will speak from my perspective at EPA. We are one of many Administration parties that work with the State Department, who is the lead in representing the United States in international negotiations. I am more than happy, from EPA's perspective, to raise this within the State Department.

Senator INHOFE. Thank you.

Ms. BROWNER. I would be happy to do that.

Senator INHOFE. I know we just have a few seconds, but I have one more question I feel that I really want to get in here and address.

The TMDL, the total maximum daily load issue—under the proposed rule, the States would have 15 years to develop TMDLs.

Ms. BROWNER. Yes.

Senator INHOFE. David Holme, who is the president of ASIWPCA—that is a good one. You may not have heard of that one before, Senator Voinovich, but that is the Association of State and Interstate Water Pollution Control Administrators. He stated before the House authorizing committee that these regulations would require one TMDL to be approved each work day for the next 15 years by each of the 10 EPA regional offices and would cost the States somewhere between \$670 million and \$1.2 billion annually.

Now, do you agree with that approximation of cost?

Ms. BROWNER. I do not know what example he is using. I am happy to look at it. I do not know what he is——

Senator INHOFE. Well, this is a proposed rule.

Ms. BROWNER. Right, and he is obviously doing some analysis which I am not privy to, which I would be happy to look at.

Senator INHOFE. Have you done an analysis for the cost of this?

Ms. BROWNER. Yes, we have.

Senator INHOFE. And what is it?

Ms. BROWNER. We have made that public. I am happy to provide it to you. We have complied fully with the executive order on cost/benefit analysis, and I am happy to provide that.

Senator INHOFE. OK, then give me a round figure. He is talking between \$670 million and \$1.2 billion.

Ms. BROWNER. The annual cost for the States to do the development of the plans we estimate at \$70 to \$90 million per year.

Senator INHOFE. Well, the only reason I brought that up, Mr. Chairman, is that I can remember during the ambient air discussion that your discussion was between \$6 and \$8 billion, and the President's Council on Economics came up with some \$60 billion, some 10 times that amount, then the Reason Foundation came up with \$120 billion, some 20 times that amount, so I take these approximations of funding of cost to the public very seriously.

Ms. BROWNER. We do, as part of any proposal, make these analyses public and take comment on them, and if adjustments are warranted we make adjustments.

Senator INHOFE. Thank you, Mr. Chairman.
[The information supplied by EPA follows:]

ANALYSIS OF THE INCREMENTAL COST OF PROPOSED REVISIONS TO THE TMDL
PROGRAM REGULATIONS

December 21, 1998

Prepared for U.S. Environmental Protection Agency,
Office of Wetlands, Oceans and Watersheds

Prepared by Environomics, Inc.
4405 East-West Highway, Suite 307 Bethesda, MD 20814

INTRODUCTION

This report estimates the incremental costs of EPA's proposed revisions to the TMDL program regulations. The costs estimated here are the costs of the revised TMDL program beyond those that will be incurred for the base program—beyond those that would be necessary to meet the requirements of current regulations, consent decrees and State commitments. For the purpose of estimating incremental costs, the proposed regulatory revisions can be grouped into five categories:

I. Changes affecting the listing program. The changes clarify or revise the format and content of the State 303(d) submissions, and also require additional public participation. The proposed regulations also request comment on options that may alter the required frequency of submissions ranging from leaving the frequency at the current 2 years to reducing it to once every 4 or 5 years.

II. Changes affecting the development and content of TMDLs. The proposed regulations specify elements that must be included in each TMDL, including an implementation plan. Enhanced public participation in developing TMDLs is also required. Most of the specified TMDL elements are already required by existing regulations. The new required elements for TMDLs do not mandate additional monitoring, data acquisition or analysis, but specify that existing information that must be obtained anyway for other ongoing water program purposes should be organized, formatted or reported in a new manner.

III. Changes affecting the schedule for completing TMDLs. The proposed regulations specify that all required TMDLs must be developed within 15 years, and that TMDLs for high priority waterbodies must be developed first. For those few States that have not already committed to a schedule of 15 years or less, this requirement will mandate an acceleration of program effort.

IV. Changes affecting Agency effort. The proposed changes in the listing program for States will result in increased EPA effort, and proposed changes in the content of TMDLs will increase the Agency's effort in reviewing TMDLs. The proposed regulations highlight an option for the public to petition EPA to take a desired action rather than proceeding directly to litigation. EPA also will propose to provide reasonable assurance for implementation of a TMDL when a State does not do so—the specific procedures are included in the proposed revisions to the Agency's permitting regulations, and a separate analysis addresses the incremental costs that may result.

V. Summary of the impact on the Agency's Information Collection Request. The Agency is in the process of renewing its Information Collection Request for the 305(b) and 303(d) programs. The proposed regulations increase the level of effort estimated by the Agency for States and for EPA. However, the savings that can result from adopting an option to reduce the frequency of the required 303(d) lists could

more than compensate for the increased burden from the other changes affecting the listing program.

In no case do any of these proposed revisions require any new monitoring or data collection. States are already collecting the needed information as part of this program or under other parts of the water program. In some cases, it may be necessary to accelerate the development of information that is already required. By and large, the intent of many of these requirements is to improve efficiency and national consistency by establishing uniform formats, eliminating ambiguities, encouraging prudent planning, improving information for public participation, and perhaps by extending the intervals between required 303(d) lists. However, we recognize that States meeting these requirements for the first time will likely require additional effort in the near term, while the benefits will accrue in later years.

The remainder of this introduction summarizes the estimated costs of the proposed regulations and outlines the general procedures we used to develop the estimates. The remaining chapters of the report are organized according to the five categories described above. In each chapter, each proposed regulatory change is described in terms of its effect, its relation to the baseline, and its potential incremental cost.

Summary of Estimated Costs

The following summarizes the results of this analysis for those aspects of the proposed rule that are expected to result in incremental costs or savings to States and to the Agency. In addition, these incremental costs are placed into perspective by comparing them to the cost of ongoing State, Territorial and authorized Tribal programs for water quality.

Overall Summary

The following table summarizes the results of this analysis for those aspects of the proposed regulations that are expected to result in incremental costs or savings to States. As shown in the table, the proposed regulations are expected to increase the costs to States by approximately \$10.3—\$24.4 million annually from the present through 2015. As shown in the summary table, the bulk of the additional costs (\$10.1—23.8 million) are associated with the proposed requirements affecting the content and development of TMDLs. For the listing program, if the listing cycle is lengthened, then the resulting savings could offset the increased listing costs associated with the proposed regulations.

The Agency anticipates that its costs will increase significantly in the future, primarily as a result of the increased State activity for developing TMDLs that is expected to occur in the baseline. As reflected in the Agency's proposed Information Collection Request, the Agency anticipates that its annual burden for the 303(d) program will increase from about 600 hours annually to about 6,600 hours annually. The bulk of this increase (5,600 hours) is for increased Agency effort for approving or disapproving TMDLs that are developed by States—this burden will occur regardless of the proposed regulation. As already reflected in the EPA's proposed ICR for the period 3/1/99–2/28/01, the Agency anticipates that the proposed regulation will further increase its burden by about 450 hours annually at a cost of about \$18,000 annually. If the listing cycle is lengthened, then the savings that result to the Agency would offset the increased burden associated with the proposed regulation.

Perspective on the Magnitude of These Incremental Costs

The requirements of the proposed revisions will impose a relatively small additional cost to ongoing State, Territorial and authorized Tribal programs. In fiscal year 99 States, Territories and authorized Tribes will receive \$200 million for nonpoint sources under section 319. This represents an increase of \$100 million dollars specifically targeted for implementation of the Clean Water Action Plan. Identifying impaired and threatened waterbodies and initiating activities designed to attain water quality standards is a key part of establishing TMDLs. In addition, States, Territories and authorized Tribes will receive \$105 million under section 106 for implementing their water quality management programs, including the development of lists of impaired and threatened waterbodies and establishment of TMDLs as required by section 303(d). Thus, the proposed regulation's incremental costs of \$10.3–24.4 million represent only 3–8 percent of the amount of support provided annually by the Federal Government for these programs, and undoubtedly a much smaller proportion of the total State spending for these activities.

The proposed regulation is expected to increase EPA's costs by \$18,000 annually. This is an insignificant increase compared to the overall annual cost of \$279 million budgeted by EPA for water quality program management.

As the number of waterbodies identified stabilizes and increasing numbers of TMDLs are established, the additional annual costs associated with the proposed

regulation are expected to decrease. At the same time, water quality will improve as TMDLs lay the groundwork for more cost-effective and improved controls.

Summary of the Incremental Costs and Savings To States Associated with the Proposed Regulations

Proposed Revision	Annualized Cost
Changes to the Listing Program:	
I.5. LISTED WATERBODIES Are grouped into 4 Parts. Only Part 1 waters require TMDLs. M/ML priorities must be set for Part 1. (Additional public part. cost is included in 7)	0.02
I.6. A State's list must include a schedule for establishing each TMDL	0.01
I.7. Listing methodologies must be subject to public review and submitted to EPA by January 31 each year a list is due	0.19
I.8. A new format is prescribed for the listing methodology	0.01,
Subtotal Annualized Cost	0.23
I.10. Option C: Changing to a 5-year cycle from a 2-year cycle after the 2000 listing	(0.32),
Subtotal Annualized Cost Including Option C	(0.09)
Changes Affecting the Content and Development of TMDLs	
II.1. TMDLs must include specified elements (costs are for implementation plan) 5.3–14.3.	
II.2. Minimum required public participation in TMDL development 4.8–9.5.	
Subtotal Annualized Cost 10.1–23.8	
Changes Affecting the Schedule for Completing TMDLs	
III.2. TMDLs for all Part 1 waterbodies must be developed within 15 years of listing01-.4,
Subtotal Annualized Cost01-.4,
Total Annualized Cost (Excluding Savings from I.10. Option C)	10.3–24.4

Methodology—General Procedures For Developing The Cost Estimates

This section reviews several general elements of our cost estimating methodology. We use the approach described in this section to develop, in subsequent chapters, estimates for the costs of the individual provisions of the proposed regulations. This section covers the following topics:

- Definition of the Baseline
- Data Sources
- Time Period for Cost Estimates and Annualization Procedure
- The Number of TMDLs to be Developed
- Labor Rates and Costs for Supervisory and Clerical Functions
- Affected Entities
- Costs When EPA Performs a Function Rather Than a State

Definition of the Baseline

Estimates of the incremental impact of some of the proposed revisions are sensitive to how the baseline of current program requirements is defined. The more that is said to be already required in the baseline, the less is the incremental burden of the proposed regulations. For this report, the baseline has been defined as the greater of:

1. The requirements of existing TMDL regulations, other existing water program regulations, and consent decrees affecting the program; and
2. Current State program practice, as reflected in the combination of recent State TMDL program performance and commitments the States have made regarding future performance.

Practices called for by EPA's TMDL program guidance materials—to the extent they go beyond existing regulatory requirements and to the extent State performance falls short of them—are therefore not included in the baseline.

Several examples will clarify the application of this definition. First are instances where State practice falls short of existing legal requirements:

In some cases, existing Federal regulations require States to do something that they may not have done in practice. For example, existing regulations¹ require each State to describe the methodology it used to develop its 303(d) list. Despite the existing regulation, in some cases some States have not provided this description of their listing methodology. The proposed regulations restate and clarify the requirement to describe the listing methodology. Under our definition of the baseline, we attribute no incremental cost to this provision of the proposed regulations. States are required by existing regulations to describe their listing methodology. The cost of

¹ 40 CFR 130.7(b)(6).

doing so is associated with the current program; it is not a cost of the proposed revisions.

The proposed regulations go further to specify the format of the State's description of its listing methodology. This does not appear in existing regulations, and few if any States have described their listing methodology in this manner. In our view, this proposed requirement does impose incremental costs beyond the baseline. The incremental costs we estimate, however, are not the entire costs for a State to describe its listing methodology, but the added costs of describing the methodology in this particular manner. A description of the State's listing methodology and the ongoing costs of preparing the description are part of the baseline. The costs of this proposed regulatory provision are whatever additional costs accrue in providing the description in this more specific format rather than in the less specific format that would suffice under the existing regulations. Further, the effort to reformat the description would only be a one-time cost.

In other cases, State practice exceeds what is called for by existing legal requirements (current regulations and existing consent decrees). Here we assume that States will continue their current practice, and the proposed regulations will impose costs only to the extent that they require more than what States are currently doing. Here are two examples:

Existing Federal regulations do not explicitly require an implementation plan as a part of each TMDL. The consensus among TMDL practitioners, however, is that a thorough TMDL should include such a plan, describing how the TMDL decisions will be implemented and how progress will be monitored toward attainment of the water quality standards. Accordingly, many of the TMDLs that States have developed recently (perhaps roughly $\frac{1}{4}$ of them, as discussed in chapter II) have included an implementation plan, even though EPA regulations have not required these plans. The proposed regulations will now explicitly require implementation plans for all waters for which TMDLs will be developed. We assume in the baseline that States will not backtrack on their current practice of preparing these plans for about $\frac{1}{4}$ of the TMDLs. In the absence of the proposed regulations, States will continue to do this. We therefore estimate that the incremental cost of the proposed regulations requiring these plans will be roughly the average cost of preparing such plans for a typical TMDL multiplied by $\frac{3}{4}$ of the total number of TMDLs to be prepared.

Existing Federal regulations do not specify the time by which a State must complete TMDLs for all its listed waters. Nevertheless, due to public pressures, legal action and other factors, most States have now committed to complete their TMDLs within some specified timeframe. Eleven States have signed consent decrees committing to deadlines for completing all their TMDLs, and 40 additional States have made other deadline commitments to EPA. States have chosen a variety of timeframes for completing their TMDLs, ranging from as little as 3 years to as many as 20. The proposed regulations will now require all States to complete their TMDLs within 15 years after listing, thus effectively requiring that all TMDLs for waters listed in the year 2000 (the first list to which the new regulations would apply) must be completed by 2015. We assume the existing State commitments to be part of the baseline—we assume that State practice will match what they have committed to. All but 4 of the States have committed through consent decrees or otherwise to complete TMDLs for all their currently listed waters by 2015—three states are in the process of making their commitments and one state planned on completing its TMDLs by 2018. Thus, the proposed regulations may have an incremental impact on these four States to the extent it requires them to accelerate their planned pace for completing their TMDLs.

To summarize, the baseline we define for purposes of incremental costing is the greater of existing legal requirements (regulations and consent decrees) and existing practice (recent State performance and commitments).

Data Sources

Most estimates of the amount of staff level of effort (LOE) needed to perform a new task required of States by the proposed regulations have been provided by a State representative. Estimates of the State LOE associated with the baseline 303(d) listing program have been drawn from EPA's analysis of the respondent burden for this program as reported in the Agency's most recent approved Information Collection Request (ICR) submission. Similarly, estimates of the Federal LOE required for tasks under the baseline listing program are also drawn from the ICR.

Other information is drawn from a review of State 303(d) list submissions, TMDLs submitted to the Agency, and a data base of listed waters prepared by Tetra

Tech, Inc.² This information was current as of early December, 1998. It includes those State list submissions and TMDLs received by EPA Headquarters and entered into the data base as of this time. For most States, this means their 1998 lists, but for some States that had not yet submitted their final 1998 lists or for which data base entry was not yet complete, our information is based on their 1996 lists. This information can be updated as more 1998 lists are submitted and analyzed. The cost estimates will likely change slightly as this newer information is incorporated.

Time Period for Cost Estimates and Annualization Procedure

The first 303(d) lists to which the proposed regulations will be fully applicable will be the lists to be submitted in 2000. The proposed regulations will require TMDLs for all listed waters to be completed within 15 years, by 2015. We have chosen the time period for the cost analysis as extending from the beginning of 1999 through 2015 so as to encompass the full cycle of program activities for this set of waters—from initial work on the listing through completion of TMDLs for all these waters. We estimate the incremental costs associated with each provision of the proposed regulations over this 17-year period. Some of these costs will occur once during this period (such as the one-time costs associated with adopting a new format), some will occur several times (e.g., under one option proposed for the listing program, lists will be required to be submitted every 5 years, starting in 2000 and then in 2005, 2010 and 2015), and some will occur each of the thousands of times a TMDL is developed during this period. In each case, we estimate the amount of the cost and how often and when it will recur during this period. Projected costs are then summed for each year from 1999 through 2015 and discounted back to the beginning of 1999 using the OMB-recommended real discount rate of 7 percent annually. When discounting, we assume that all of the costs incurred in a year occur at the beginning of the year—this is a conservative assumption that tends to increase the present value cost of the proposed regulations. We then annualize this present value figure over the 17-year period of analysis. The result is the estimated annual cost of each proposed regulatory requirement.

The Number of TMDLs to be Developed

One of the most important data elements needed in estimating the costs of the proposed regulations is the number of TMDLs that will need to be developed over this time period. Some of the proposed regulatory requirements increase or accelerate the cost of developing a typical TMDL. The total cost of such requirements can generally be estimated by multiplying the cost increase for a typical TMDL by the number of TMDLs to be developed. Unfortunately, there are several unknowns in estimating the number of TMDLs to be completed.

The best initial indicator of the number of TMDLs is the number of waters listed by States in their 303(d) lists. By combining the most recent lists from each State, we estimate a current national inventory of some 20,198 listed waters. The ultimate number of TMDLs needing development will differ from this number for several reasons:

Several sorts of waters must be included on States' 303(d) lists even though they will not in the future need TMDLs developed for them. These sorts include: 1) Waters that are impaired or threatened by pollution (e.g., flow alteration or exotic species) rather than pollutants and that are thus not amenable to TMDLs; 2) Waters that have already had TMDLs developed for them, but for which WQS have not yet been attained; and 3) Waters that are impaired, but for which planned activities other than TMDLs will bring them into attainment. Under the proposed regulations, these three sorts of listed waters not needing TMDLs would be classified in separate parts of a State's 303(d) list.

Many additional currently listed waters will eventually prove not to need TMDLs. States often list waters on a conservative basis, choosing to list a water even though the information suggesting that it is impaired is very limited. Subsequent monitoring may find that the water is not impaired and need not be listed.

On the other hand, not all the waters that will eventually need TMDLs are currently known and listed. States have monitored or assessed only a fraction of their waters. As assessment and monitoring efforts expand to more of the Nation's waters, more impaired waters needing TMDLs will be found. The States' 303(d) lists submitted in 2000 will undoubtedly include some waters recently discovered to be impaired that were not on the 1998 lists. Similar additions will occur in the lists due in future years after 2000.

² Kevin Kratt, Tetra Tech. "Updated memo on TMDL listing and development questions relating to EPA's new regulations." November 20, 1998.

Some perspective on the likely balance between the factors tending over time to increase the number of listed waters and other factors decreasing it is provided by the change between 1996 and 1998 in the number of waters listed by States. For the 38 States for which 1998 list data has been tabulated, the 1998 lists in total are about 35 percent longer than the 1996 lists. This suggests that the discovery over time of new impaired waters that should be added to the lists has had a greater impact than the process of paring the lists down by eliminating waters that really do not need to be listed (in effect, that the third of the buffeted factors mentioned above has outweighed the second).

Additional factors complicate the relationship between the number of listed waters and the number of TMDLs that will need to be done:

Many listed waters have more than one cause of impairment, and a TMDL may be needed to address each cause. For the 1998 303(d) lists, there are about twice as many causes of impairment as waters. If each cause were to require a separate TMDL, then about twice as many TMDLs would be required as there are waters. However, it is often possible to develop a single TMDL that simultaneously addresses multiple causes of impairment in a water.

The geographic scale at which TMDLs are developed may not match the scale at which waters are listed. Some listed waters are very large, and multiple TMDLs will likely need to be developed for different portions of a single listed water. Conversely (and probably more commonly) some listed waters have water quality problems and potential solutions that are very closely related to those for adjoining listed waters, and a single TMDL can be developed on a watershed basis addressing a set of several listed waters.

In sum, there are large uncertainties about how many currently listed waters will not need TMDLs done for them, about how the number of listed waters will change over time, and about how many TMDLs will be needed per listed water. Assessing the combined impact of the various factors affecting the relationship between the number of currently listed waters and the number of TMDLs that will eventually need to be done through 2015 is extremely difficult. Our rough guesses are that:

The three factors we cited initially—the three sorts of currently listed waters that will not need TMDLs, the deletion from the lists of waters that ultimately prove not to be impaired, and the addition to the lists of additional waters found to be impaired—on balance will result in a number of waters eventually needing TMDLs that is somewhat greater than the current number of listed waters.

The “causes” information suggests that a minimum of 1 and a maximum of 2 TMDLs on average will need to be developed per listed water.

The frequency of geographic consolidation of TMDLs (developing one TMDL on a watershed basis that covers several listed waters) will prove much greater than the frequency of geographic disaggregation (developing multiple TMDLs to cover disparate sections of a single listed water).

On balance, we will assume, we believe conservatively, that the roughly 20,000 currently listed waters will result in the need to develop between about 20,000 and about 40,000 TMDLs over the period from the present through the year 2015.

Labor Rates and Costs for Supervisory and Clerical Functions

A State representative provided an estimate of \$80,000 as the typical current fully loaded cost (including salary, all benefits and indirect costs) of a technical State FTE with typical qualifications for performing TMDL work. This is generally consistent with estimates made by states that have prepared workload estimates for their water quality and TMDL programs.³ By contrast, the cost of an EPA FTE working on the 305(b) or the 303(d) program has been estimated to be somewhat higher, at \$83,971 per year.⁴

The State representative also expressed some concern that EPA’s proposed TMDL program regulations might slightly increase the average quality of the State technical staff needed (e.g., the increased public participation requirements would increase the need for skilled public meeting facilitators) and increase States’ needs for travel money and laptop computers. He suggested that, in order to be conservative in our cost estimates, we might want to assume that the additional State LOE required by the new regulations, with support, might cost slightly more than the \$80,000 figure for the fully loaded average cost of an FTE under the current pro-

³For example, the Washington State Department of Ecology developed a detailed workload model for their TMDL program. For this model, they estimated that the current annual cost of an FTE is roughly \$80,000 per year. (Total maximum Daily Loads Workload Model, Program Definition and Cost, Department of Ecology Publication No. 98-26, July 1998, page 9).

⁴EPA’s recent ICR for the 305(b) and 303(d) programs assigned that work was done by staff at an average salary level of Grade 10 Step 7, and applied an overhead rate of 110 percent. Using 1998 salary rates, this amounts to a loaded labor rate of \$83,971 per FTE.

gram. In response to this suggestion, we have assumed that the additional State FTE required by the new regulations will cost as much as an EPA FTE, or \$83,971 per year. EPA's recent ICR makes the same assumption that State FTEs cost the same as EPA FTEs. On an hourly basis, this is the equivalent of a fully loaded cost of \$40.37 per hour. In this cost analysis, therefore, we assume that incremental State technical LOE required by the proposed regulations costs \$40.37 per hour.

This accounts for the cost of the incremental technical staff hours. To this we add the costs of clerical and supervisory support for the technical staff hours, as follows. The State representative cited the detailed study conducted by the State of Washington that found that one clerical worker was needed for every 8.5 technical staff and one supervisor was needed for every 7.7 technical staff. Together, clerical and supervisory personnel needs are thus approximately .25 FTE for every 1 technical FTE.⁵ We thus added a 25 percent factor for clerical and supervisory support to the estimates provided for the technical FTE needed to accomplish a task required by the proposed regulations. All the LOE estimates provided in this report include this 25 percent factor, they therefore include both the technical and the clerical/supervisory support needed to meet the requirements of the proposed regulations.

Affected Entities

In this document, we use the term "States" for convenience to include the 50 States plus the District of Columbia, Puerto Rico, the Virgin Islands, American Samoa, Guam, and the Commonwealth of the Northern Marianas. When we refer to the cost for a typical State to perform an activity, we mean the average cost that will be incurred across these 56 entities. We will often then multiply this average cost by 56 to obtain a national cost estimate. In the future, Tribes may apply and be authorized to implement the TMDL program for their waters. If so, the average cost per "State" would need to be multiplied by more than 56 to obtain a national cost estimate.

Costs When EPA Performs a Function Rather Than a State

Many TMDL program activities must be performed by EPA in instances when a State fails to perform a required function. When this happens, it is likely that EPA's cost of performing these functions will be higher than the State's costs for several reasons: EPA's performance in stepping in for a State will likely be less efficient than the State's performance would have been; EPA personnel will be less familiar with the particular State context and because of increased travel needs, EPA's LOE would probably be greater than the State's would have been.

We have not estimated in this report the likely increased costs for EPA to perform a required TMDL program function when a State does not perform it. There are several reasons why we have not made such estimates:

Most importantly, it is EPA's expectation that in virtually all cases the States will perform the functions that are being asked of them. Two primary purposes of the proposed regulations and supporting draft guidance are to clarify and bring consistency to the TMDL program and to provide States with the necessary information so that they will fully and successfully implement the program.

Apart from the reasonable assurance issue, we have no reason to foresee any instances in which a State is unlikely to perform a required function, and no basis for estimating quantitatively how often States might not perform required functions.

However, in the case of the reasonable assurance requirement, States may occasionally be unable to meet a specific requirement of the proposed regulations. The specific procedures for this requirement are included in the proposed revisions to the Agency's permitting regulation, and a separate analysis addresses the incremental costs that may result.

I. PROPOSED REVISIONS AFFECTING TO PROGRAM

The proposed revisions that alter the listing program in ways that might be thought to affect cost are:

1. Clarifying the definition of "threatened";
2. Codifying the scope of the lists to include waterbodies that are impaired or threatened by atmospheric deposition, and by all combinations of point and nonpoint sources (i.e., point sources only, nonpoint sources only, and a combination of point and nonpoint sources);
3. Expanding the scope of the lists to include waterbodies that are impaired or threatened by pollution (as well as pollutants);

⁵ 8.5 technical staff per 1 clerical staff means 1/8.5 or 0.118 clerical per technical. 7.7 technical staff per 1 supervisory staff means 1/7.7 or .130 supervisory per technical. Summing the two gives .248 clerical plus supervisory per one technical.

4. Requiring that waterbodies remain listed until standards are attained (rather than only until TMDLs are approved);

5. Changing the format for specifying priorities by requiring that listed waterbodies be grouped into 4 categories (Parts 1 through 4, with TMDLs required for Part 1 waterbodies only), requiring that Part 1 waterbodies be prioritized into three groups (as either high, medium or low priority), and requiring that Part 1 waters with certain characteristics be assigned high priority;

6. Eliminating the requirement that states identify the TMDLs to be completed within 2 years, and replacing it with a requirement for comprehensive, TMDL-specific schedules as part of the listing;

7. Requiring that a State's listing methodology be subject to public review and submitted to EPA by January 31 prior to each submission;

8. Changing the format for a State's required description of its listing methodology; and

9. Changing the date by which lists must be submitted to EPA to October 1 from April 1.

The incremental impact of each of these revisions is discussed below in Sections I.1.-I.9. The combined incremental impact of these revisions is summarized at the conclusion of this chapter.

In addition, the proposed regulations ask for public comment on options for further altering the frequency with which lists must be submitted:

10. Options for altering the listing cycle, ranging from leaving it a 2-year cycle to changing it to a 4-year or 5-year cycle, either effective immediately or subsequent to the next listing due in the year 2000.

The incremental costs (which in this case amount to savings rather than costs) associated with some of these options are evaluated in Section 1.10.

Some provisions in the proposed regulations affecting the listing program are not addressed in this chapter because they clearly have no or minimal incremental cost or savings associated with them. These include:

Revising the definitions of TMDL, wasteload allocation and load allocation, as well as adding definitions for the terms pollution, pollutant, impaired waterbody, thermal discharge, and waterbody. These definitions are intended to clarify meaning rather than to change the substance of the definitions, and do not affect the listing program. To the extent that any of these revisions might affect the cost of developing TMDLs, they are discussed in the next chapter (II. Proposed Revisions Affecting the Development and Content of TMDLs.)

Requiring a georeference for each listed waterbody does not affect incremental cost because EPA already has a program nearing completion that provides this capability at no cost to the States.

Additional revisions that do not affect cost include:

Eliminating the existing regulatory provision that a rationale be provided for any decision not to use some existing and readily available data and information.

Clarifying that violation of a narrative criterion is a basis for placing a waterbody on the §303(d) list.

Clarifying the steps and timeframes for actions that EPA will take if the Agency disapproves a State submittal (list or TMDL).

This chapter focuses on the incremental costs or savings that States may realize due to the provisions of the proposed regulations. Chapter IV includes the impact of the proposed regulations on the Agency's workload.

I.1. The definition of "threatened" waterbody is clarified

Requirement

The proposed regulations clarify "threatened" to mean that adverse declining trends for a waterbody currently meeting water quality standards indicate that standards will be exceeded by the next listing cycle.

Baseline

The existing regulations include the requirement to list threatened waterbodies, but do not define "threatened."

Incremental Cost

The additional costs of this clarification are expected to be minimal for two reasons. First, no additional data or information are needed for States to apply this definition. Second, the time horizon specified in the definition only requires a very near-term focus (one listing cycle), and likely represents the minimum time horizon that States might use to comply with the existing requirement to list threatened waterbodies. Further, this clarification may reduce costs in those cases where States

previously interpreted “threatened” to require a longer term assessment, such as projecting a decade ahead.

I.2. The scope of the lists is codified to include waterbodies that are impaired or threatened by atmospheric deposition, and by all combinations of point and nonpoint sources

Requirement

The proposed rule codifies EPA’s existing policy that waterbodies impaired or threatened by atmospheric deposition be listed. The proposed regulations also codify the Agency’s long-standing interpretation that the §303(d) listing requirement applies to waterbodies that are impaired or threatened by any combination of point and nonpoint sources (i.e., point sources only, nonpoint sources only, or a combination of point and nonpoint sources).

Baseline

The proposed regulations are consistent with the Agency’s long-standing interpretation and policy regarding atmospheric deposition and combinations of point and nonpoint sources.

Incremental Impact

No additional costs are anticipated since the proposed regulations do not alter existing requirements.

I.3. Expanding the scope of the lists to include waterbodies that are impaired or threatened by pollution

Requirement

This proposed revision requires States to use existing and readily available data and information to list waterbodies that are impaired or threatened by “pollution”, in contrast to only those impaired or threatened by “pollutants”. States are not required to obtain any new data or information to comply with this requirement. The revision adds cases where impairments or threats cannot be linked back to any specific substance or parameter added to the water (i.e., “pollutant”, including chemicals, sediment, BOD, bacteria, heat, etc.), such as for flow alterations. Waterbodies that are listed as impaired or threatened by pollution but not pollutants will be listed as Part 2 waterbodies (discussed further below in Section I.5.) and TMDLs are not required for them.

Baseline

Waterbodies impaired or threatened by pollution are already identified as part of the 305(b) reports that States provide. Many States have gone further and include on their 303(d) lists some of their waterbodies that are threatened by pollution. For example, during the 1996 listing cycle, 35 of the States’ lists identified at least one water listed because of a pollution cause, and 16 of these States’ lists identified many waterbodies listed due to pollution causes. From available information that the 1998 listing cycle for 38 States, at least an additional 6 States have identified pollution causes, of which 4 states identified many causes.

Incremental Cost

EPA does not anticipate that these proposed revisions will significantly increase the resources needed to prepare listings. States have already identified all impaired and threatened waterbodies in their 305(b) reports whether due to pollution or pollutants. Further, States that have already listed many waterbodies that are impaired or threatened by pollution should be only minimally affected by this requirement.

As discussed above, at least 20 States have already listed many waterbodies for such causes. The 36 States that have not listed waterbodies for such causes previously, or who have done so only to a limited extent, may feel it appropriate to hold a public meeting regarding their new policy for listing waterbodies affected by pollution. This public meeting might be in addition to the public participation that already occurs as part of the State’s listing process. If needed, this additional public participation effort would only occur once in support of the State’s 2000 listing. However, as discussed below in Section I.7., the proposed regulations already require that all States hold an additional public meeting that could be appropriate for this purpose. The additional public participation cost that might be associated with this requirement has been included in the incremental cost estimated in Section I.7. below.

I.4. Waterbodies are listed until standards are attained

Requirement

Currently, most States list waterbodies until TMDLs are approved, then drop them from their lists. The proposed revision requires that waterbodies remain listed until water quality standards are actually met. This only affects when waterbodies are removed from the list, and does not require the development of any information that wouldn't otherwise be available anyway. These waterbodies will be listed as Part 3 waterbodies, as discussed later in I.5.

Baseline

In most States, a water is removed from the list when all required TMDLs for that water are approved. However, the Agency's current guidance allows waterbodies to remain on a State's list until standards are attained. Some States, such as those in Region 10, have already been following this practice.

Incremental Cost

No additional costs are anticipated as a result of keeping waterbodies listed until standards are attained.

I.5. Waterbodies must be grouped into 4 Parts (1-4), with only Part 1 waterbodies requiring TMDLs and these must have high, medium and low priorities set for them. Part 1 waterbodies with certain characteristics must be classified as high priority

Requirement

The proposed revision requires that waterbodies be grouped into 4 categories as follows:

Part 1: Waterbodies impaired or threatened by one or more pollutants requiring the development of TMDLs.

Part 2: Waterbodies impaired or threatened by pollution rather than pollutants. A TMDL is not required for waterbodies on this part of the list.

Part 3: Waterbodies for which EPA has approved or established a TMDL, but for which water quality standards have not yet been attained.

Part 4: Waterbodies that are impaired, but for which planned activities other than TMDLs will bring them into attainment. If such a waterbody does not attain water quality standards by the next listing cycle, the waterbody must be included in Part 1.

Only Part 1 waterbodies require TMDLs to be developed and priorities to be established. The proposed regulations further specify that, starting with the 2000 listing, Part 1 waterbodies must be grouped into three classes of priorities: high, medium and low. The proposed regulations specify that high priority Part 1 waterbodies must include all waterbodies for which the designated use is public drinking water supply or that contain or serve as habitat for endangered or threatened species under section 4 of the Endangered Species Act. The definition of medium and low priority is left to the States' discretion. High priority waterbodies must have TMDLs completed for them before low and medium priority waterbodies, and all of the Part 1 waterbodies must have TMDLs completed for them within 15 years of being listed as Part 1—the impact of requiring that TMDLs be developed within these specified timeframes is evaluated in chapter III (III. TMDLs Must Be Completed Within Specific Time Periods).

Part 2 waterbodies were discussed earlier in Section I.3. and Part 3 waterbodies were discussed earlier in Section I.4.

The proposed regulations do not alter the current requirements for Part 4 waterbodies. The proposed regulations do clarify that the time horizon over which attainment must be achieved for these waterbodies is 15 years plus the length of one listing cycle.

Baseline

There is no current requirement to group waters. However, no new data or information is needed for States to group their waterbodies in accordance with the four categories (Parts I 4) as now specified in the proposed revisions.

With regard to setting priorities, States are already required to set priorities for listed waterbodies under the current program. About 75 percent of the States in their 1996 lists assigned some type of priority to their impaired waterbodies, and an additional 10 percent assigned some type of priority in their 1998 lists. Some States assigned explicit high, medium and low priorities to each water. Some States separated their lists into several tiers (e.g., First, Second, Third) and waterbodies in each tier were assigned the same priorities. Some States actually ranked all their waterbodies or watersheds in numerical priority order. Some States set priorities

using a rotating basin approach, planning to develop TMDLs at the same time for all waterbodies located in the same basin. Overall, about 10 of the 56 States used approaches for setting priorities that are essentially equivalent to high, medium and low priorities or that can readily be grouped in this manner.

Incremental Cost

Setting priorities is already a statutory requirement and an ongoing process under the current program. The cost of developing and applying approaches for setting priorities is part of the cost of the existing program, even for States that have not yet developed or applied approaches for setting priorities. Therefore, it is not appropriate to attribute any of the cost of this existing requirement to set priorities to the proposed revisions. The proposed regulations do specify the way that priorities must be set, adding modestly to the cost of setting priorities, as discussed below.

The proposed revisions require a change in the way that waterbodies and priorities are grouped. It is anticipated that the additional effort to group waterbodies into the 4 Parts would be small. Further, it is anticipated that there would not be much additional effort needed to identify the small number of high priority waterbodies (i.e., those for which the designated use is public drinking water supply or that contain or serve as habitat for endangered or threatened species).

States that are not already grouping waterbodies according to high, medium and low priorities may require an additional one-time effort to re-orient their approaches for setting priorities for Part 1 waterbodies. On average, about 100 hours of effort should be adequate for revising an existing priority setting system to meet the requirements of the proposed regulations. Since 10 of 56 States already employ approaches that provide the equivalent of high, medium and low priorities, perhaps 46 listings may require the additional 100 hours of effort to revise their priority setting systems. However, since the 10 states that already have appropriate priority setting systems may still wish to reevaluate their systems in light of the proposed regulations, we conservatively assume that all 56 states will require, on average, an additional 100 hours of effort. This one-time effort amounts to an additional 5,600 hours (about 2.7 FTE) at \$40.37/hour for a total one-time cost of \$226,075 to be incurred in 1999. The present value of this cost is \$226,075⁶ and the annualized cost of this one-time effort through 2015 is \$21,641.

In addition, States that are substantially revising their priority setting systems as a result of the proposed regulations might wish to hold an additional one-time public meeting for this revision. This additional public participation has been included within the incremental cost for the new requirement for public participation discussed below in Section I.7.

Finally, it is not anticipated that the proposed regulations will result in additional costs for Part 4 waterbodies. Part 4 waterbodies are cases where States expect attainment of standards without TMDLs.

If a State's expectation for a waterbody proves wrong, the existing regulations would require the development of TMDLs. The proposed regulations' requirement to reclassify Part 4 waterbodies as Part 1 waterbodies if they fail to achieve attainment within one listing cycle only clarifies that there must be a reasonable time horizon for the expectation that standards will be attained. This requirement limits the time horizon to one listing cycle plus 15 years (the time limit for completing TMDLs that are newly listed as Part 1 waterbodies). Thus, a waterbody that is classified as Part 4 in the 2000 listing, must achieve attainment by the next listing—2002 for the current 2-year cycle, 2004 if a 4-year cycle is adopted and 2005 if a 5-year cycle is adopted; if the waterbody is not in attainment by then, it must then be classified as a Part 1 waterbody, and therefore it must either achieve attainment or have a TMDL developed for it within 15 years—2017 for the current 2-year cycle, 2019 for a 4-year cycle, and 2020 for a 5-year cycle. The timeframe that States currently apply when anticipating that waterbodies will achieve attainment without the need for TMDLs should be well within the 17–20-year time horizon as clarified by the proposed regulation.

⁶As discussed previously in the methodology section, all costs are discounted to January 1, 1999 and all costs incurred in a year are conservatively assumed to occur at the beginning of the year. Thus, the present value of any costs incurred at any time in 1999 (\$226,075 in this case) is the same as the undiscounted cost (\$226,075). This is a conservative simplifying assumption because it maximizes the present value of any costs incurred.

I.6. A State's list must include a schedule for establishing each TMDL, replacing the existing requirement to target only those TMDLs that will be completed within 2 years

Requirement

The proposed regulations require that States develop comprehensive schedules for developing TMDLs for all waterbodies included on Part 1 of the list. This requirement would replace the existing requirement to identify only those TMDLs to be developed within 2 years. Further, the workload for establishing TMDLs must be reasonably paced over the duration of the schedule. As time passes, States may alter the sequence of TMDL development from the original schedule as technical and analytic needs demand. Therefore, the comprehensive schedule commits States more to the overall pace of TMDL development, rather than to a rigid schedule for specific TMDLs.

Baseline

The proposed provision replaces the current requirement that States identify those waterbodies for which TMDLs will be developed over the next 2 years.

Past and ongoing litigation has and will likely continue to result in States preparing comprehensive schedules for developing TMDLs. 11 States representing about 30 percent of the national total of listed waterbodies have already developed comprehensive schedules as part of Consent Decrees. Plaintiffs have filed litigation for another 15 States, representing 33 percent of the national total of listed waterbodies; and notices of intent to sue have been filed in 5 additional States. Thus, it is likely that, due to current litigation, comprehensive schedules for developing TMDLs would be prepared in the baseline for perhaps half of the States, representing a substantial portion of the TMDLs.

About half of the States use a rotating basin or watershed approach to water quality management, in which States work sequentially through each of their basins on a 5-year cycle, and schedule all their activities in these basins or watersheds accordingly, including establishing TMDLs.

Incremental Cost

States with Consent Decrees already have comprehensive schedules for developing TMDLs. States that use a rotating basin or watershed approach to water quality management should be able to readily schedule TMDL development in accordance with their existing basin schedule of activities, especially given the flexibility in the regulations regarding the specific sequencing of TMDL development. States without Consent Decrees or States that do not use a rotating basin or watershed approach may require the most planning effort to develop realistic, comprehensive schedules.

For the purpose of estimating incremental cost, we conservatively assume that all 45 States without existing Consent Decrees will need to develop new comprehensive schedules. The task of developing a comprehensive schedule is simplified since all these States will already have developed high, medium and low priorities for Part 1 waterbodies (the incremental cost for this effort was included above in Section 1.5.). The task is further simplified because the regulations emphasize primarily the pace of TMDL development rather than the precise sequence (the proposed regulations provide States with the flexibility to alter the sequence of the specific TMDLs that are to be developed). Thus, it is anticipated that the additional effort needed to develop a comprehensive schedule for each of the 45 States would be, on average, about 20 hours. The total effort for all 45 States for developing the initial comprehensive schedule would amount to 900 hours (.4 FTE) at \$40.37/hour for a total cost of \$36,333 to be incurred in 2000. However, it is anticipated that the schedule would also need to be reviewed with each listing cycle and revised as needed. These revisions might require perhaps half of the original effort or an average of about 10 hours per listing cycle per State for a total cost of \$18,167 in each subsequent listing cycle. Across all the States, the present value cost of preparing the initial schedule and revising it through 2015 (8½ listing cycles under the existing regulations) would be \$108,764 and the annualized cost through 2015 would be \$10,411.

I.7. Requiring that the listing methodologies be subject to public review and submitted to EPA by January 31 for each submission

Requirement

States' listing methodologies must be subject to public review and submitted to EPA 8 months prior to the deadline for submission of the list (which the proposed regulations shift from April I to October I of the listing year as discussed later under Section I.9.).

Baseline

States currently must submit their listing methodologies to EPA for review. The current program requires public participation and review of all aspects of the listing submission, which would include the listing methodology. In compliance with the Paperwork Reduction Act, EPA has periodically prepared Information Requests (ICRs) for the National Water Quality Inventory Reports, which include the estimated burden associated with the TMDL listing process for respondents and for EPA. EPA's current approved ICR (in effect through 2/28/99) estimated the States' effort to conduct public participation for the 303(d) program. For EPA's current ICR, the total State effort for public participation (for the listing program) per listing cycle per State was estimated to be, on average, about 120 hours.

Incremental Cost

The requirement to submit the listing methodology to EPA 8 months before submitting the list should not increase the level of effort needed by a State to develop the listing methodology. This requirement may result in the need for some States to shift forward their effort for developing or revising their listing methodology by a few months. Generally, it is not anticipated that the cost of developing the methodologies will be affected by this requirement.

However, separating the public review of the listing methodology from the State's public participation activities regarding the list itself by 8 months would likely result in the need for States to increase their public participation effort. This additional effort for public participation would occur for every listing cycle. Further, as discussed previously (in Sections 1.3., and 1.5.), more extensive public participation would likely be required for the first listing cycle under the proposed regulations to review changes in the listing methodology regarding "pollution" causes, changes in the priority setting approach, and perhaps changes regarding how atmospheric deposition and combinations of point/nonpoint sources are covered. In addition, the proposed regulations emphasize the importance of public participation. Therefore, the resulting increased State effort for public participation is estimated as follows:

For the first listing cycle under the proposed regulations (i.e., for the year 2000), we anticipate that the additional public participation effort for a State might range from 200–800 hours depending on the level of interest in the State and the extent of the revisions in the listing methodology. This is considered a conservative estimate, given the Agency's current estimate that the on-going State effort for all public participation for the listing program is on average about 120 hours per listing cycle per State. To estimate the national one-time cost for the first listing cycle, we conservatively assume that, on average, the increased level of effort across the 56 States and Territories would be 500 hours per State (i.e., over four times the estimated current average for all public participation activities), for a total increased effort of 28,000 hours or 13.5 FTE for the year 2000 listing cycle.

For subsequent listing cycles, we anticipate that public participation would likely be more routine in nature and require far less effort than for the first listing cycle under the proposed rules. Nevertheless, to conservatively estimate national cost for subsequent listing cycles (beyond the year 2000), we assume that the average State effort for public participation will nearly double from current levels, with the average level of effort increasing by 100 hours for a total of 5,600 hours or 2.7 FTE per cycle subsequent to the year 2000 listing.

Therefore, the overall incremental cost for the additional State effort for public participation for the first listing cycle (January, 2000) would be \$1,130,373 and would drop to \$226,075 for subsequent cycles. The present value of this additional cost through 2015 (8½ listing cycles under the existing regulations) would be \$1,987,363 and the annualized incremental cost through 2015 would be \$190,239.

1.8. New format for the listing methodology

Requirement

The proposed revision specifies a new format for describing the listing methodology. This new format will not affect the methodology that States use.

Baseline

The current regulations already require that the listing methodology be described. About 69 percent of the 1998 State lists explained their listing methodology (up from 56 percent for the 1996 listing cycle). Because the existing regulations require that the listing methodology be described, the cost of describing the listing methodology is considered to be part of the baseline, regardless of whether a State is currently complying with this requirement.

Incremental Cost

Describing the listing methodology is an on-going requirement of the current program. However, changing the format may result in some additional one-time effort to repackage and clarify the description of the listing methodology in accordance with the new format. An additional one-time effort of 40 hours in the year 2000 should be adequate for adopting the new format. For all 56 listings, the total additional level of effort would be 2,240 hours (1.18 FTE), amounting to a one-time cost of \$90,430 assumed to occur in the year 2000. The present value of this cost is \$84,514 and the annualized value over the period of analysis is \$8,090.

I.9. Changing the listing cycle so that lists must be submitted to EPA on October I instead of April I

Requirement

The proposed regulations will require States to submit their lists to EPA on October I instead of April I in each year that lists are due to be submitted.

Baseline

The current regulations require that States submit their §305(b) water quality reports and §303(d) lists on April I of every even-numbered year.

Incremental Cost

Shifting the due date for listing submissions by 6 months to October I is expected to ease any difficulties that States may have in completing both §305(b) water quality reports and §303(d) lists for submission at the same time. This revised due date is not expected to result in increased costs.

I.10. The Proposed rule requests comment on options for changing the listing cycle from a 2-year cycle to a 4-year or 5-year cycle, either effective immediately or subsequent to the listing due in the Year 2000

Requirement

The proposed revision asks for comment on options for altering the listing cycle. These options include:

Option A.—Retain the current 2-year listing cycle,

Option B.—Adopt a 4-year or 5-year listing cycle immediately,

Option C.—Require that the first list submission under the new rule occur no later than October 1, 2000, with subsequent list submissions occurring every 4 or every 5 years.

If the listing cycle is lengthened (Option B or C), then fewer lists would need to be prepared and approved in the future. For example, the current listing cycle (Option A) would require 8½ lists to be prepared and approved through 2015, while switching to a 5-year cycle after the 2000 list (Option C) would require 4 lists. From a cost perspective, lengthening the listing cycle would result in savings for both States and the Agency. Potential savings to States are evaluated in this section, while potential savings to the Agency are evaluated in chapter IV. For simplicity, we have only assessed the savings that States would realize from Option C where a listing is required for October, 2000 and subsequent listings are required every 5 years (instead of every 2 years as currently required).⁷

Baseline

In compliance with the Paperwork Reduction Act, EPA has periodically prepared Information Collection Requests (ICRs) for the National Water Quality Inventory Reports, which include the estimated burden associated with the TMDL listing process for respondents and for EPA. EPA's current, approved ICR (in effect through 2128/99) estimates the current respondents' burden of preparing a 303(d) listing, and is summarized in the following table. Over the time horizon for this analysis (1999–2015), the current program would require 8½ listings. At 25,424 hours per listing cycle, the Agency's total effort through 2015 would be 216,104 hours or 103.9 FTE. These estimates are also the basis for the Agency's submission to renew the existing ICR.

⁷ Generally speaking, the savings associated with a 4-year cycle would be somewhat less than for a five-year cycle—for Option C, for example, a 4-year cycle through 2015 requires effort for 4¾ lists as opposed to the 4 lists needed for a 5-year cycle. The savings associated with Option C would be somewhat less than for Option B—for example, for 5-year cycles through 2015, Option C requires effort for 4 lists as opposed to the 3¾ lists needed for Option B.

Current State Listing Program Effort Per Listing
As Estimated In EPA's Information Collection Request

ICR Activity Number	Description of Activity	Effort per State (hours)	Efforts all States (hours)
7	Identify waters needing TMDLs	215	12,040
8	Prioritize waters needing TMDLs	118	6,608
9	Conduct 303(d) participation	121	6,776
Total hours:		454	25,424

When analyzing the impact of Option B or Option C, it would appropriate to include the incremental effort associated with the proposed regulations as part of the baseline. As discussed in previous sections, the proposed regulations will likely result in increasing States' efforts as follows:

Incremental Effort for All States Due to the Proposed Regulations Per Listing
As Estimated In This Chapter

Chapter I Section Number	Description of Proposed Regulatory Revision	Total Effort for all States	
		Effort per State (hours)	Efforts all States (hours)
1.5	Revise the listing methodology	5,600	
1.6	Develop comprehensive schedules for TMDLs	900	450
1.7	Provide additional public participation	28,000	5,600
1.8	Revise the format for the listing methodology	2,240	
Total Hours:		36,740	6,050

Thus, over the time horizon for this analysis (1999–2015), the proposed regulations would increase the effort of the current listing program by 36,740 hours for the 2000 listing and by 6,050 hours for each subsequent listing.

The total listing effort for all States per listing cycle for both the current and proposed regulations is summarized in the following table:

Total State Listing Program Effort Per Listing for All States
Due to the Current and Proposed Regulations

Listing Year	Current Program (hours—all States)	Increment Due to Proposed Regulations (hours—all States)	Total Resulting Effort (hours—all States)
2000 listing	25,424	36,740	62,164
Each subsequent listing	25,424	6,050	31,474

Thus, under the current 2-year listing cycle, the States' total listing effort through 2015 would be 62,164 hours for the year 2000 listing and 31,474 for each of the 7½ subsequent listings. The total effort through the year 2015 under the 2-year current listing cycle would amount to 298,219 hours or 143.4 FTE.

Incremental Cost

The current 2-year listing requirement would result in 8½ listings, occurring biennially starting in 2000 and continuing through 2015. As shown above, taking into account the requirements of the proposed regulations, the total effort under the current 2-year listing cycle would be 143.4 FTE.

Option C would lengthen the listing cycle to 5 years, requiring only 4 listings over the same period (i.e., for 2000, 2005, 2010 and 2015). It is not anticipated that a 5-year listing would require more effort than a 2-year listing. In addition, Option C does not affect the effort needed for the 2000 listing. Consequently, the total effort associated with Option C is 62,164 hours for the year 2000 listing and 31,474 for each of the subsequent 3 listings, for a total of 156,586 hours or 75.3 FTE.

Therefore, Option C results in substantial savings compared to the current 2-year listing cycle, as summarized in the following table:

Savings To States Associated with Option C: Lengthening The Listing Cycle to 5 Years through 2015 for Two Cases: 1) the Current Program Only and 2) the New Program

Applicable Regulations	Total Effort for All States Through 2015		Savings Through 2015 Option C: 5-Year Cycle Over Current Cycle (hours—all States)
	2-Year Cycle (hours—all States)	Option C: 5-Year Cycle (hours—all States)	
1. Current Program	216,104	101,696	114,408
2. Including Proposal	298,219	156,586	141,633

Including the proposed regulations, Option C amounts to a savings over the baseline of 141,633 hours or 68.1 FTE. Furthermore, even with the increased effort that results from the requirements of the proposed regulations, the resulting effort of 156,586 hours is still less than the current effort of 216,104 hours under the existing regulations—this amounts to a savings through 2015 of 59,536 hours or a 27 percent reduction of effort.

The cost associated with the 31,474 hours for each list beyond the year 2000 is \$1,270,621. For the current 2-year listing cycle, the present value of completing the 7½ lists from 2002 through 2015 would be \$5,232,210. The present value for the Option C listing cycle for the three lists on 2005, 2010 and 2015 would be \$1,880,734. Therefore the present value of the savings associated with the 5-year cycle of Option C is \$3,351,476 and the annualized incremental savings through 2015 would be \$320,818.

I.11. SUMMARY

The costs and savings associated with the proposed revisions discussed in this chapter are summarized in the table on the following page. As shown in the table, the proposed revisions affecting the listing program through 2015 are expected to amount to an annualized cost of about \$230,000.

If Option B or Option C for the listing cycle were selected, then a savings would result that would offset some or all of the additional listing program costs of the proposed regulation. Using Option C as an example, switching to a 5-year cycle after the 2000 listing would save about \$320,000 annually, more than offsetting the additional listing program costs of the proposed regulation, and resulting in a net annual savings over this period of about \$90,000 per year.

Summary of the Incremental Costs and Savings Associated with the Proposed Revisions to the Listing Requirements

Proposed Revision	Annualized Cost (Thousand \$)
I.1. Clarifying the definition of "threatened".	
I.2. Codifying the scope of lists to include waterbodies Impaired or threatened by atmospheric deposition & all combinations of point and nonpoint sources.	
I.3. Expanding the scope of the lists to include waterbodies impaired or threatened by pollution (as well as pollutants). (Additional public participation cost included in #7).	
I.4. Requiring that waterbodies remain listed until standards are attained.	
I.5. Listed waterbodies must be grouped into 4 Parts, with only Part 1 waterbodies requiring TMDLs. Part 1 waterbodies be prioritized into high, medium and low priorities. (Additional public participation cost is included in 7)	\$22
I.6. A State's list must include a schedule for establishing each TMDL	\$10
I.7. Listing "methodology" must be subject to public review and submitted to EPA on January 31 before each submission. (Includes public participation cost of 3 & 5)	\$190
I.8. New format for the listing methodology	\$8
I.9. Requiring lists to be submitted October 1 instead of April 1.	
Total Annualized Incremental Cost (1998 \$)	\$230
I.10. Option C: Changing to a 5-year cycle from a 2-year cycle after the 2000 listing	(\$320)

Summary of the Incremental Costs and Savings Associated with the Proposed Revisions to the Listing Requirements

Proposed Revision	Annualized Cost (Thousand \$)
Total Annualized Cost (1998 \$) Including Option C (net Savings)	(\$90)

II. PROPOSED REVISIONS AFFECTING THE DEVELOPMENT & CONTENT OF TMDLS

The proposed revisions affect how TMDLs are to be developed and what must be included, as follows:

1. All TMDLs must include each of the following elements:

- Waterbody name and geographic location;
- Target pollutant load;
- Deviation from the target;
- Sources;
- Wasteload allocation and load allocation;
- Margin of safety;
- Seasonal variation;
- Allowance for future growth; and
- Implementation plan.

2. States must meet minimum requirements for public participation in TMDL development.

These provisions potentially add to the tasks that are typically performed for each TMDL. We estimate the cost of these provisions by: 1) estimating the additional LOE needed to perform each new task for a typical TMDL; 2) converting this LOE into a corresponding cost; and 3) multiplying this unit cost by the projected number of TMDLs for which this task will have to be done.

The incremental impact of each of these revisions is discussed below. The combined incremental impact of these revisions is summarized at the conclusion of this section.

II.1. All TMDLs must include specified elements

Requirement

The proposed regulations require that a TMDL include: (1) identification of the name and geographic location of the waterbody; (2) identification of the pollutant load that may be present and still assure attainment and maintenance of water quality standards (WQS); (3) identification of the amount by which the current pollutant load deviates from this target; (4) identification of the source categories, sub-categories and individual sources of the pollutant; (5) WLAs for pollutants from point sources, and LAs for pollutants from nonpoint sources, including atmospheric deposition and natural background; (6) a margin of safety, expressed as unallocated assimilative capacity or conservative analytical assumptions used in calculating the TMDL; (7) seasonal variation such that WQS will be met during all seasons of the year; (8) an allowance for future growth that accounts for reasonably foreseeable increases in pollutant loads; and (9) an implementation plan, including 8 minimum elements described below.

Baseline

Items (1) through (7) in this list of required elements are explicitly required by existing regulations (40 CF11 130.2(i) and 130.7(c)(1)). Item (8) requires a State to reserve an amount for future growth in their allocation strategy that accounts for reasonably foreseeable increases in pollutant loads and explain this decision. This is not currently an explicit requirement for TMDLs, although many TMDLs have included such reserves for future growth. This new requirement is discussed further in section II.1 a., below. Item (9), an implementation plan, represents another new requirement that many previous TMDLs have nevertheless included. It is discussed in section II.1b., below.

Incremental Cost

Each of the proposed required elements (1) through (7) represents a reiteration and clarification of existing regulatory requirements and common TMDL practice. As such, these proposed requirements add no incremental costs. The costs of the new requirements, items (8) and (9), are discussed below.

II.1a. All TMDLs must include an allowance for future growth that accounts for reasonably foreseeable increases in pollutant loads

REQUIREMENT

The proposed regulations require that a TMDL provide, in the allocation strategy, for foreseeable increases in pollutant loads. The State must document its decision-making process in determining the amount of this allowance for growth, and should explain to stakeholders the implications of the growth allocation decision.

BASELINE

In developing TMDLs, States have pursued a variety of approaches with respect to projected future growth in pollution loads:

In some cases, a portion of the target load is reserved—not allocated to any source or category of sources—for future growth. In these cases, the sum total of the WLAs, the LAs and the margin of safety is less than the target load that will assure attainment and maintenance of WQS.

In other cases, the full target load is allocated across all sources and categories of sources, but the allocations to such categories as natural background, upstream loadings and air deposition reflect their projected load growth over time. In these cases, the allocations to the remaining sources and categories are sufficiently limited that WQS will be attained and maintained even when the projected future loadings growth from natural background, etc. occurs.

In other cases, inadequate or no provision is made for growth. Sometimes likely growth in nonpoint source category loads is ignored, too much of the target loading is allocated to point sources, and the WLAs given to point sources eventually prove to be too high when growth in nonpoint source loads occurs.

The first two of these common approaches will be allowable under the proposed regulations, the third will not be. No information is available on the relative frequency with which recent TMDLs have employed one or another of these approaches.

Incremental Cost

The proposed provision requiring an allowance for foreseeable growth will necessitate changed practice only for the portion of TMDLs like the third category. In our view, the requirement to provide for foreseeable growth will result in cost savings for these TMDLs. A TMDL that does not properly account for likely growth will ultimately prove insufficient to attain and maintain WQS when the growth occurs, and the TMDL will need to be redone. Much of the TMDL process will need to be repeated, and the WLAs and/or LAs for some sources or categories will need to be ratcheted down. Sources will need to implement control measures to meet the original WLA or LA, and then to implement additional controls to meet the subsequent, tighter requirements. This two-step process that becomes necessary when growth is not properly accounted for will likely be more costly to both the State and to the sources than it would have been to account for likely growth and get the TMDL right the first time. We are unable to estimate the likely magnitude of this savings.

II.1b. States must develop an implementation plan for each TMDL, including 8 required elements

Requirement

The eight elements required in implementation plans include: (1) a description of the control actions and/or management measures needed to implement the TMDL; (2) a timeline for the implementation activities, including a schedule for revising NPDES permits, implementation of BMPs, etc.; (3) reasonable assurance that the implementation activities will occur; (4) a description of the legal authorities under which implementation will occur; (5) an estimate of the time required to attain water quality standards; (6) a monitoring plan to determine the effectiveness of the implementation actions; (7) a description of milestones that will be used to measure progress in attaining WQS; and (8) a description of when failure to meet milestones will trigger a revision of the TMDL.

The proposed regulations will allow a State substantial flexibility regarding the scale at which these implementation-related components of a TMDL must be developed. In general, the scale at which an implementation plan is written should match the scale at which the TMDLs have been done. Thus, it may sometimes be appropriate for a State to develop an implementation plan for each particular TMDL for each specific water. Other times, it may be appropriate to develop a broader implementation plan that covers multiple waters in a watershed if all these waters had their TMDLs developed in an aggregated watershed-wide process or if all the waters

suffered from similar problems caused by similar sources. In some cases, it might even be appropriate for the State to develop a single broadly applicable State-wide implementation plan if there was substantial similarity in how the State planned to implement the TMDLs in all the State's listed waters of some particular variety.

The proposed requirement that a State provide reasonable assurance that implementation activities will occur merits further explanation. A State must demonstrate with a high degree of confidence that WLAs and LAs will be implemented. For point sources, this means that NPDES permits must be revised consistent with any WLA contained in the TMDL. For nonpoint sources, reasonable assurance can be demonstrated if the planned nonpoint source controls are specific to the pollutant of concern, implemented according to an expeditious schedule, and supported by reliable delivery mechanisms and adequate funding. Examples of reasonable assurance for nonpoint sources might include State regulations or local ordinances, performance bonds, memoranda of understanding, contracts or similar arrangements.

Baseline

These proposed requirements are new in the sense that current regulations do not explicitly require TMDLs to include implementation plans. They are not new, however, in the sense that most of these elements have long been understood to be included in thorough TMDLs, and perhaps roughly *i.* of the TMDLs in fact have included them.⁸ Also, all of these elements are currently required to be addressed in State WQM plans, albeit on a more aggregated State-wide or basin-wide basis than would be required by the proposed regulations. In essence, States currently generate most or all of the information needed to prepare TMDL-specific implementation plans, but usually generate such plans at a higher level of aggregation.

With respect specifically to the required demonstration of reasonable assurance, States currently do so for all TMDLs involving point sources, but do not necessarily now do so for TMDLs involving nonpoint sources only. For TMDLs involving nonpoint sources only, the baseline of current State TMDL practice falls somewhat short of the proposed reasonable assurance requirement:

For TMDLs involving point sources only. States currently demonstrate reasonable assurance regarding WLAs for point sources by providing the schedule by which NPDES permits for the relevant point sources will be revised to incorporate their WLAs. Existing regulations require NPDES permits to incorporate effluent limitations consistent with an applicable TMDL (40 CFR 122.44(d)).

For TMDLs involving both point and nonpoint sources. EPA's 1991 TMDL program guidance provides that if a point source NPDES permit limit is based on a WLA that relies on nonpoint source load reductions, then the NPDES permit record must include (1) reasonable assurance that the needed nonpoint source controls will be implemented and maintained, or (2) a monitoring program to demonstrate the nonpoint source load reductions. NPDES permits must provide for more stringent limits on the point source if the expected nonpoint source load reductions are not demonstrated. In effect, reasonable assurance for implementation of an entire TMDL involving both point and nonpoint sources is provided by existing, mandatory regulatory controls over point sources.

For TMDLs involving nonpoint sources only. Current regulations do not require States to have or demonstrate assured controls over nonpoint sources. In practice, States have a wide variety of workable mechanisms for control of different sorts of nonpoint sources.⁹ For probably the majority of nonpoint source TMDL situations that arise, States likely have within this tool kit of mechanisms and authorities some that can provide reasonable assurance. States have developed many TMDLs that do include effective measures to assure achievement of LAs for nonpoint sources. However, the pattern of potential State authorities over nonpoint sources is widely varied, and there are undoubtedly TMDL situations that arise in one or another State where that State does not currently have an assured means of controlling the load from some category of nonpoint sources. For example, State authority to control air deposition to waters, particularly when the sources of the air emissions are dispersed or from other States, is limited. As another example, State mechanisms for control over agricultural nonpoint sources also open not rise to the level of reasonable assurances.¹⁰

⁸Discussions with a State representative and consultants who have assisted in preparing a great many TMDLs for States suggest that perhaps roughly a quarter of the TMDLs that have been developed recently have included all eight required implementation plan components. This is consistent with the results of a recent review of a sample set of TMDLs received by the Agency, in which 1/3 of the States that submitted TMDLs included "good" implementation plans.

⁹See, for example, this summary: Environmental Law Institute, *Enforceable State Mechanisms for the Control of Nonpoint Source Water Pollution*, October, 1997.

¹⁰The Environmental Law Institute study cited above observes, for example:

In short, for TMDLs involving nonpoint sources only, current State practice often falls short of the requirements of the proposed regulations. There are two reasons for this. First, most commonly, States often develop TMDLs without including an implementation plan. In these cases, the issue of demonstrating reasonable assurance for nonpoint source controls never arises. Second, less commonly, for some nonpoint source TMDL situations, the State does not have an authority or mechanism for a relevant category of nonpoint sources that would be sufficiently effective as to constitute reasonable assurance. The first of these shortcomings relative to the requirements of the proposed regulations would obviously be easier for a State to rectify than the second.

Incremental Cost

For a typical TMDL that does not include an implementation plan, a State representative estimates the average additional LOE necessary to meet the requirements of the proposed regulation as:

Preparing a monitoring plan—75 to 100 hours; and

Preparing the remaining eight required elements of an implementation plan—75 to 100 more hours. Some of the remaining eight elements are prepared as a matter of course in developing TMDLs currently, including the description of planned control actions, reasonable assurances for point source controls, and at least a rough timeline, estimate of the time required to attain WQS, and set of milestones. Other elements, such as the required description of the legal authorities under which implementation will occur and reasonable assurance for nonpoint sources can typically be developed easily from existing materials in the State's WQM plan and section 319 plan. Other elements, such as the required description of when failure to meet milestones will trigger a revision of the TMDL, can rely largely on State-wide policy that needs only little tailoring for adaptation to a particular TMDL.

In total, the eight required elements of an implementation plan would add \$6,056 to \$8,074 (150 to 200 hours at a cost of \$40.37 per hour) to the cost of a typical TMDL that did not include them.

In addition, for some sorts of nonpoint source TMDLs in some States, no adequate authorities or mechanisms will exist allowing demonstration of reasonable assurance. In such instances, the State would have a choice between: 1) developing adequate authorities; or 2) developing a TMDL that does not include reasonable assurance and that is therefore not approvable by EPA. For these States, the first course would likely be difficult (the State would presumably need to establish new legal and enforcement authorities or find adequate funding to ensure compliance by the nonpoint sources with their LAs) and the outcome would be unpredictable (the State might not succeed in establishing the new authorities). Under the second course, in the absence of an approvable TMDL from the State, EPA would need to develop the TMDL itself. The proposed regulations include revisions to EPA's NPDES permitting rules that describe how EPA will proceed in such cases where EPA must develop a TMDL because the State cannot provide reasonable assurances for implementation. For cost estimating purposes, we assume the second of these courses. We have no basis for estimating what the costs might be for States to develop the additional authorities necessary so they can provide reasonable assurance for implementation for all nonpoint source TMDLs. Instead, in the portion of the cost analysis addressing the proposed changes to the permitting rules, we estimate the costs for EPA in cases where States have inadequate authorities for reasonable assurance. That analysis is provided in a separate report. Thus, the incremental costs for meeting the reasonable assurance requirements of the proposed regulations are not covered in this chapter.

"Agriculture is the most problematic area for enforceable mechanisms. Many laws of general applicability, as noted above, have exceptions for agriculture. Where state laws exist, they often defer to incentives, cost-sharing, and voluntary programs. Nevertheless, about a fifth of the states have some statewide sediment requirements applicable to agriculture, often administered by local governments or soil and water conservation districts. Even more states (about a fourth) authorize individual soil and water conservation districts, as a matter of local option, to adopt enforceable "land use regulations" for the control of erosion and sedimentation, but most of these require approval by landowner referendum, with approval requiring a super-majority (ranging from 66 to 90 percent) in order for such regulations to become effective."

II.2. States must meet minimum requirements for public participation in TMDL development

Requirement

The proposed regulations require States to provide the public with at least 30 days to comment on TMDLs prior to their submission to EPA. In addition, the State must provide EPA with a written summary and response to public comments.

Baseline

Existing regulations (40 CFR 130.7(c)(1)(ii)) require “that calculations to establish TMDLs shall be subject to public review as defined in the State CPP”. EPA has long encouraged States to carry out hill public participation in establishing TMDLs consistent with States’ administrative procedures requirements. All or nearly all States now routinely provide for public notice and comment and the opportunity for a hearing in their TMDL processes. It is not known how many States develop a written summary and response to public comments.

Incremental Cost

A State representative has estimated that providing for additional public participation consistent with the proposed regulations and beyond that which routinely occurs (i.e., developing a written summary and response to public comments, and increasing the proportion of TMDLs for which a public hearing is held) might require an average of 100 hours (or \$4,037 at \$40.37 per hour) per TMDL.

II.3. Scaling Up the Cost Estimates From a Single Typical TMDL to All TMDLs

In this section, we have estimated the following incremental costs for a typical TMDL to meet the additional requirements of the proposed regulations:

7 required elements of a TMDL	No cost
Allowance for future growth	Savings not estimated
Implementation plan	\$6,056 to \$8,074 (150 to 200 hours)
Reasonable assurance (some nonpoint source TMDLs)	EPA’s cost is estimated in the permit rule analysis
Additional public participation	\$4,037 (100 hours)

These costs represent unit costs that must be scaled up by the number of TMDLs for which these additional elements will need to be developed.

In the Methodology section, we estimate that 20,000—40,000 TMDLs will need to be developed during the period of analysis. If we assume that implementation plans sufficient to meet the proposed new requirements are routinely developed now for about one quarter of all TMDLs and that this baseline practice will continue in the future, three quarters of all future TMDLs (roughly 15,000—30,000 of them) will face incremental costs for implementation plans under the proposed regulations. The estimated additional costs for enhanced public participation will apply to all 20,000—40,000 future TMDLs.

To the extent that the required implementation plan and public participation requirements are met on an aggregated watershed basis rather than individually for each TMDL, the number of instances in which these additional activities will need to occur will be less than shown above. We have no adequate basis for estimating the likely extent to which such geographic aggregation will occur and reduce the incremental workload. To be conservative, we will assume no geographic aggregation. We assume that the additional workload for implementation plans will be necessary for three quarters of all TMDLs (15,000 to 30,000 of them), and the additional workload for enhanced public participation will be necessary for all TMDLs (20,000 to 40,000 of them).

Multiplying these numbers of TMDLs needing additional work by the added cost for a typical TMDL and annualizing over the 17-year period of analysis, we estimate the cost of the proposed new requirements to be \$10.1—\$23.8 million per year.

II.4. Summary

The costs of the proposed revisions discussed in this chapter are summarized below:

Summary of the Incremental Costs Associated With the Proposed Revisions Affecting the Content of TMDLs

Proposed Revision		Annualized Cost (million \$)
1. TMDLs must include 9 elements:	7 elements	0
	Allowance for future growth	Savings
	Implementation plan	5.3-14.3
	(Reasonable assurances)	(estimated elsewhere)
2. Minimum required public participation in TMDL development.		4.8-9.5
Total		10.1-23.8

III. TMDLS MUST BE COMPLETED WITHIN SPECIFIC TIME PERIODS

As discussed previously in chapter 1, the proposed regulations require that TMDLs be developed for Part 1 waterbodies and that States must determine the priority of these TMDLs as either high, medium or low priority. All Part 1 waterbodies must have TMDLs completed for them within 15 years as described below:

TMDLs for high priority Part 1 waterbodies must be completed before low and medium priority waterbodies. When feasible, EPA encourages States to adopt a goal of completing the development of TMDLs for high priority waterbodies within 5 years. However, EPA recognizes that a 5-year timeframe may not be feasible for all States.

TMDLs for all Part 1 waterbodies must be completed within 15 years of being listed as Part 1 waterbodies. Thus, for example, waterbodies that are newly listed Part 1 waterbodies in the year 2000 must have completed TMDLs by 2015; similarly, TMDLs for waterbodies that are newly listed, for example, in 2010 must be completed by 2025.

Requiring that TMDLs for Part 1 waterbodies be developed within specific time periods might result in the acceleration of the development of some of these TMDLs relative to the pace that might have occurred in the baseline. Accelerating the development of a TMDL results in its cost of development being incurred sooner, and therefore increases the present value cost of TMDL development.

The potential cost impacts of accelerating the development of TMDLs that might have otherwise taken longer than required by the proposed regulations are estimated in this chapter for the following proposed requirements:

Requiring that TMDLs for high priority Part 1 waterbodies be developed first, and requiring that high priority waterbodies include all those for which the designated use is public drinking water supply or that contain or serve as habitat for endangered or threatened species.

Requiring that TMDLs for all Part 1 waterbodies, regardless of priority, be developed within 15 years of listing as Part 1.

The incremental costs of these requirements due to resulting changes in the listing process were covered in chapter I.

III.1. TMDLs for high priority Part 1 waterbodies must be developed first

Requirement

The proposed regulations require that States identify all Part 1 waterbodies for which the designated use is public drinking water supply or that contain or serve as habitat for endangered or threatened species under section 4 of the Endangered Species Act. These must be classified as high priority, and TMDLs for these waterbodies must be completed first. States are encouraged to adopt a goal of completing TMDLs for high priority waterbodies within 5 years of being listed as a Part 1 waterbody.

Baseline

As discussed further in section III.2. below, nearly all States have committed to completing TMDLs for all of their Part 1 waterbodies within 15 years. Of these States, 21 States have committed to schedules of 10 years or less. To accomplish any of these schedules, substantial portions of the States' TMDL workload would need to be completed within the first 5 to 10 years in the baseline.

Incremental Cost

It is not anticipated that this proposed requirement will result in incremental costs to the States for several reasons.

To the extent that States have waterbodies for which the designated use is public drinking water supply or that contain or serve as habitat for endangered or threatened species, the Agency believes that States would have scheduled prompt development of TMDLs for these waterbodies in the baseline anyway.

The proposed regulation allows waterbodies which have endangered species present to be assigned a medium or low priority if the State has an approved Habitat Conservation Plan or other specific, enforceable mechanism developed in accordance with the Endangered Species Act.¹¹

The goal of completing TMDLs for high priority waters within 5 years will likely be feasible for many States. Given the States' current commitments to complete their TMDLs within the next 10–15 years, States will generally be developing an appreciable fraction (perhaps $\frac{1}{4}$ – $\frac{1}{3}$) of their TMDLs within the next 5 years anyway. Therefore, it should not be difficult for many States to sequence TMDL development schedules to ensure that TMDLs for high priority waters be developed first, and completed within 5 years. EPA recognizes that this timeframe may not be feasible for all States. Therefore, the 5-year completion timeframe is only a goal, not a requirement.

Thus, the proposed regulations' requirement to complete TMDLs for high priority waterbodies first will not result in increased costs because the Agency believes that TMDLs for these waterbodies would likely have been scheduled for priority development by States anyway in the baseline; and if not, overall TMDL development schedules could readily be re-sequenced within the States' current commitments in the 1998 listing program to address the high priority TMDLs first. Finally, the goal of completing TMDLs for high priority waters within 5 years is a goal, not a requirement.

III.2. All Part 1 waterbodies must have TMDLs completed for them within 15 years

Requirement

The proposed regulations require that TMDLs for all priority Part 1 waterbodies be developed within 15 years. This schedule will be required for all Part 1 waterbodies starting with the 2000 listing—TMDLs for these waterbodies must be completed by 2015. Waterbodies listed in 1998 actually have a 17-year maximum schedule, since the 15-year time limit does not apply until the 2000 listing. In listings subsequent to 2000, TMDLs for newly listed Part 1 waterbodies will need to be completed within 15 years from their listing date. The following calculations focus on the cost of this requirement for the TMDLs that will need to be completed within the 17 years through 2015.

Baseline

Most States have already committed to completing TMDLs for their currently listed waterbodies prior to 2015—i.e., they will not be affected by the proposed revision. Based on EPA's December 11, 1998 Status of 1998 303(d) Lists, 48 States have committed to schedules and sent them to EPA. Schedules are anticipated soon for the remaining 8 States. Draft schedules are available for 5 of these States. Therefore, at this point, we have a basis for estimating the TMDL completion schedules for 53 States, which represent 95 percent of the listed waterbodies. Over the next few months, the remaining 3 States will submit their schedules, eliminating the need for any assumptions regarding their schedules.

For the 53 States (having draft schedules or final schedules), commitments for completing TMDLs for their 1998 listed waterbodies range from 3 years to 20 years (i.e., completion by 2001 to 2018). Only two of these States have scheduled TMDLs to be completed past 2015: Missouri and New Mexico. However, New Mexico's Consent Decree specifically allows it to develop TMDLs for its 1996 listed waterbodies through 2018, and therefore New Mexico is not subject to the 15-year requirement of the proposed revision. Missouri has listed about 77 waterbodies. Assuming that Missouri will develop TMDLs uniformly through 2018, then TMDLs for about 12 waterbodies are currently scheduled to be developed past 2015.

It is more difficult to determine the baseline for the remaining 3 States whose schedules are still pending. Therefore, we provide a range of possibilities. Based on the schedules for the 53 States, it would be reasonable to anticipate that all of the TMDLs for 1998 listed waterbodies for the remaining 3 States will be completed by

¹¹This regulation, however, does not require consultation with the U.S. Fish and Wildlife Service.

2015. This assumption provides the basis for our “low” estimate. To provide a “high” estimate we assumed that all of the remaining 3 States will complete their TMDLs by 2020 instead of by 2015, exceeding by 2 years the longest of any of the State schedules that have been submitted. This is a very conservative assumption since only 2 of the 53 States with schedules extend to even 2018. Assuming that these 3 States develop TMDLs uniformly through 2020, then under the “high” estimate, TMDLs for an additional 249 waterbodies are scheduled to be developed past 2015.

Thus, given current State commitments, at least 52 States will not be affected by the proposed revision requiring that TMDLs be developed by 2015 (51 States with current or expected schedules prior to 2015, and New Mexico). 1–4 States may need to accelerate the development of TMDLs for as many as 12–249 1998-listed waterbodies. This range should narrow over the next few months as States submit their schedules for developing TMDLs. The details of this baseline analysis of TMDL development are shown in Attachment 1, which provides State-by-State schedules and projected year-by-year TMDL development by State past 2015.

As discussed in the Methodology section, it is important to note that the number of listed waterbodies requiring TMDLs is only an indication of the number of waters needing TMDLs, not the actual number of TMDLs that will be done.

To some extent, the number of 1998 listed waterbodies can overstate the number of waterbodies that will require TMDLs, because not all 1998-listed waterbodies will be considered to be Part 1 waterbodies. In the 2000 listing, some of these waterbodies will be classified as Part 2 waterbodies (which do not require TMDLs because they are not impaired due to pollutants), some will be classified as Part 3 waterbodies (for which a TMDL has been completed) and some will be classified as Part 4 waterbodies (which do not require TMDLs because other measures will address the problems). Therefore, since the 12–249 estimate of waterbodies for which TMDLs that might be developed past 2015 assumed that all 1998-listed waterbodies would be Part 1 waterbodies, it is likely that this estimate is overstated.

On the other hand, most listed waterbodies have more than one cause of impairment and a TMDL may be needed to address each cause. For the 1996 listings there were slightly more than twice as many causes as waterbodies, and for the 1998 listings there were slightly less than twice as many causes as waterbodies. If each cause requires a TMDL, then about twice as many TMDLs would be required as waterbodies. However, TMDLs that handle multiple causes can be developed.

For this analysis, we have assumed that the number of TMDLs to be completed ranges from the number of listed waterbodies to twice this number of waterbodies. Thus, the number of TMDLs that in the baseline would be developed past 2015 would range from 12 to 499¹²:

The low end of the range (12 TMDLs) assumes that all 3 States without schedules submitted yet will choose schedules completing TMDLs for their listed waterbodies prior to 2015. The low end of the range also assumes that the number of 1998 listed waterbodies likely significantly overstates the number that will eventually be categorized as Part 1. This also assumes that multiple causes for a listed water will not commonly necessitate multiple TMDLs for that water.

The high end of the range (499 TMDLs) assumes that all 3 States will submit schedules that reflect even longer timeframes than those that have been submitted to date (i.e., completion by 2020). It also assumes that separate TMDLs will generally be needed to address every cause.

This broad range provides the basis for analyzing the incremental cost of the acceleration of TMDL development caused by the proposed rule’s requirement that TMDLs must be completed within 15 years after a water is listed.

Incremental Cost

In the absence of the proposed rule, we assume that approximately 12–499 TMDLs would be developed (we assume at a steady rate) between 2016 and 2020. As a result of the proposed rule, the development of these TMDLs will need to be accelerated, and we assume they will be rescheduled to be developed at a steady rate between 1999 and 2015. The incremental cost of accelerating the development of these TMDLs is the time-value of incurring these expenditures sooner. This is just the difference between the present value of completing the TMDLs under the baseline schedule versus the present value of completing the TMDLs under the new schedule required by the proposed rule.

Thus far, we have estimated the number of TMDLs and their alternate schedules. The remaining key element that is needed is the average cost of developing these TMDLs. Studies estimating the cost of TMDL development have shown a wide

¹²From Attachment 1, the low end is 11.6 waterbodies rounded up to 12, and the high end is $249.3 \times 2 = 498.6$ rounded up to 499.

range of potential cost. For example, one study¹³ examined 14 TMDL case studies in which the costs ranged from about \$4,000 to \$1,000,000. The costs for six of the TMDLs were under \$22,000 and the costs for the remaining eight were over \$145,000. The cost for a given TMDL can depend on a wide range of factors including the watershed size, the complexity of the analytic work needed, the number and type of pollutants addressed, and the level of public interest. There are reasons to expect that the average cost to develop a TMDL will be at the low end of the range found in this study, and that the average cost will decline over time:

The cost depends on the extent to which TMDLs for similar circumstances have been developed and on the extent of the State's experience in developing TMDLs. The first TMDLs to be developed tend to be the most costly because staff is less experienced and many technical issues will be addressed for the first time. As more TMDLs are completed, staff will become more experienced and the work routine, so that the cost of developing TMDLs will tend to decline.

Recent experience has shown that once a "template" is created for developing TMDLs for a pollutant, that approach can often be applied to other waterbodies at a relatively low cost.

The technology for developing TMDLs has steadily improved over the years and its cost has declined.

As States increasingly adopt a watershed approach, some costs, such as for public participation, can decrease dramatically on a per/TMDL basis. For example, a single public participation process at the watershed level, costing, say, \$50,000, might serve to take the place of similar efforts for perhaps ten TMDLs, resulting in a cost of \$5,000 per TMDL.

Thus, while the cost of developing a specific TMDL might be at the higher end of the range, the average cost of developing TMDLs across the program is expected to be at the lower end of the range.

For this report, the average cost of developing a TMDL is assumed to be \$25,000. This includes the increased costs that were identified in chapter II of this report as likely to result from the proposed regulations. Note that the cost estimates for accelerating the development of TMDLs depend directly on this assumption: if the assumed average cost of developing a TMDL were increased to \$50,000 the estimated incremental cost of accelerating TMDL development would double; if the assumed average cost of developing a TMDL were decreased to \$12,500, the estimated incremental cost of accelerating TMDL development would decline by 50 percent.

The detailed calculations for the cost of accelerating the development of 12-499 TMDLs so that they are completed by 2015 are shown in Attachment 2—Attachment 2 shows the step-by-step calculations that use the specific TMDL development patterns derived in Attachment 1. The results are summarized below:

Low estimate. The total cost of developing the 12 TMDLs over the period 2016-2020 is about \$300,000 and its 1999 present value is about \$85,000. Developing these 12 TMDLs over 1999-2015 has the same total cost, but a 1999 present value of about \$175,000. Thus, the incremental cost of accelerating the development of these 12 TMDLs is about \$90,000. The annual cost of acceleration as annualized over 1999-2015 is about \$9,000.

High estimate. The total cost of developing 499 TMDLs over the period 2016-2020 is about \$12.5 million and its 1999 present value is about \$3.5 million. Developing these 499 TMDLs over 1999-2015 has the same total cost, but a 1999 present value of about \$7.7 million. Thus, the incremental cost of accelerating the development of these 499 TMDLs is about \$4.2 million. The annual cost of acceleration as annualized over 1999-2015 is about \$400,000.

In summary, given the assumptions made in this report, accelerating the development of 12-499 TMDLs from the period 2016-2020 to the period 1999-2015 results in an increased annualized cost ranging from about \$9,000 to about \$400,000 through 2015.¹⁴

¹³ EPA, TMDL Development Cost Estimates: Case Studies of 14 TMDLs. EPA-R-96-001, May 1996.

¹⁴ Note that the incremental cost of accelerating TMDL development from the period 2016-2020 to the period 1999-2015 roughly results in doubling the cost of TMDL development. For example, for the low estimate of 12 TMDLs, the 1999 present value cost is roughly doubled from about \$85,000 to about \$175,000, for an incremental cost of about \$90,000. This is not surprising, since on average, TMDL development is accelerated from about 2018 (the midpoint of the baseline period) to about 2007 (the midpoint of the accelerated development period), an average acceleration of about 11 years. At 7 percent annually, time-value doubles in 10 years and increases to 210 percent in 11 years. Conversely, delaying TMDL development by 10 years halves its cost.

IV. INCREASED COSTS FOR EPA RESULTING FROM THE PROPOSED REGULATIONS

The proposed regulations alter the requirements for States for the listing program and for the content and development of TMDLs. These requirements have implications for the Agency as well:

1. Proposed revisions to the listing program and for the content of TMDLs will also result in increased costs to EPA for reviewing and approving lists and TMDLs.
2. Options for reduced frequency with which lists must be submitted will reduce the number of State lists EPA must review and approve and thereby reduce cost to EPA.
3. The suggestion that the public petition EPA for action to establish TMDLs rather than proceed directly to litigation will likely reduce costs for both EPA and the public.

Each of these proposed requirements is evaluated in this chapter.

This report does not evaluate the incremental costs to EPA in cases where EPA must develop portions of a TMDL if a State cannot provide reasonable assurance for implementation of the TMDL. The specific procedures for this are included in the proposed revisions to the Agency's permitting regulation, and a separate analysis addresses the incremental costs that may result.

IV.1. Proposed revisions to the listing program and for the content of TMDLs will also result in increased costs for EPA for reviewing and approving lists and TMDLs

Requirement

EPA's new requirements under the proposed revisions (as described in chapters I, II and III) will result in changes in the content of list submissions as well as of TMDLs.

Baseline

The Agency's current activities regarding the listing program and for reviewing/approving lists are identified in the Agency's current approved Information Collection Request (in effect for the 3-year period ending 2/28/99). The Agency is in the process of renewing the ICR for the next period (ending 2/28/01) and has developed new estimates for the Agency burden associated with these activities. The estimates for the current ICR and its proposed renewal are shown in the following table.

The Agency has estimated that its burden will increase significantly over the next 3 years, primarily due to the increased pace for developing TMDLs that States have committed to in their 1998 lists. This increase in the expected Agency burden is part of the baseline—as detailed in chapter III, States have already committed in their 1998 list submissions (in the baseline) to increasing the pace of TMDL development, and the State schedules are consistent with the requirements of the proposed regulation for nearly all of the States. This factor accounts for the bulk of the expected increase in the Agency's effort as anticipated in the ICR, amounting to 5,580 hours (out of the total increase 6,032 hours). This expected increase also includes consideration of any increased effort that might be associated with the proposed regulation's new requirements for the content of TMDLs.

Comparison of EPA's Current and Expected Burden For Activities Identified In Its Information Collection Requests for the 303(d) Program

Description of Activity and Number	Frequency (years)	ICR Burden Estimate (annual hours)	
		Existing (to March 1999)	Renewal (to March 2001)
8. Prepare 303(d) guidance	1	62	62
9. Provide technical assistance to States for 303(d)	1	96	236
10. Review draft 303(d) lists 2	2	96	236
11. Send TMDL approval/disapproval notices to States	1	20	5,600
12. Review final 303(d) lists. Negotiate to resolve disapprovals	2	328	500
Total Annual Agency Burden		602	6,634
Expected Increase in Total Annual Agency Burden			6,032

Increment

The new estimates for the Agency's effort for 303(d) activities also take into account the provisions of the proposed regulation for the listing program. As shovel

in the following table, the Agency anticipates that its activities for preparing 303(d) guidance, providing technical assistance to States, reviewing draft lists, and reviewing final lists and negotiating to resolve disapprovals will increase by 452 hours annually—an increase of nearly 80 percent. At the average loaded hourly rate of \$,40.37/hour used in the ICR to estimate the cost of the Federal burden, the increased effort is estimated to cost \$ 18,247 annually.

IV.2. Options for altering the listing cycle will affect EPA’s workload by changing the number of lists EPA must evaluate

Requirement

As discussed in Chapter I, the proposed revision asks for comment on options for the listing cycle. These options include:

- Option ARetain the current 2-year listing cycle,
- Option BAdopt a 4-year or 5-year listing cycle immediately,
- Option C The first list submission under the new rule would occur no later than October 1, 2000, with subsequent list submissions occurring every 4 or every 5 years.

As shown in Chapter I, using Option C as an example, lengthening the listing cycle would result in savings for States because fewer lists would need to be prepared. This assessment of the corresponding savings to the Agency also focuses on Option C, where a listing is still required for October, 2000 and subsequent listings are required every 5 years.

Baseline

The current listing cycle requires the submission of lists every 2 years.

Incremental Cost

Altering the listing cycle would not be expected to affect the annual burden for EPA’s activities for preparing 303(d) guidance, providing technical support to States, or sending TMDL approval/disapproval notices to States. Altering the listing cycle would affect the Agency’s annual effort for reviewing draft and final 303(d) lists and negotiating to resolve disapprovals. The Agency’s total effort for these activities for a list submission is 1,472 hours. Switching from the current 2-year cycle to a 5-year cycle would lower the Agency’s annual effort from 736 hours to 295 hours annually, for a savings of 441 hours annually as shown in the following table.

Comparison of EPA’s Burden For 303(d) Program Activities for the Current 2-Year Cycle Versus a 5-Year Cycle

Description of Activity and Number	Current Frequency (years)	ICR Burden Estimate (annual hours)	
		2-Year Cycle	5-Year Cycle
10. Review draft 303(d) lists	2	236	95
12. Review final 303(d) lists. Negotiate to resolve disapprovals	2	500	200
Total Annual Agency Burden		736	295
Expected Decrease in Total Annual Agency Burden			441

This savings of 441 hours annually would essentially offset the increased annual burden of 452 hours identified in the previous section. The value of the undiscounted savings is \$ 17,803. However, since the bulk of these savings would be realized after the year 2000, the actual savings is slightly less as explained below.

Putting it another way, the current 2-year cycle through the year 2015 would require the Agency to provide 1,472 hours for 8½ listing cycles for a total effort of 12,512 hours. Option C, which maintains the 2000 listing but requires only an additional 3 listings through 2015 would result in a burden of 5,888 hours. Thus, switching from a 2-year to a 5-year cycle would save the Agency 6,624 hours after the 2000 listing through the year 2015. Taking into account the pattern of savings through 2015, the present value of the savings would be \$156,744 and the annualized savings over this period would be \$15,004.

IV.3. The proposed regulations suggest that the public petition EPA for action to establish TMDLs rather than proceed directly to litigation

Requirement

The proposed regulation clarifies that the public must petition EPA prior to filing a lawsuit seeking to compel EPA to carry out TMDL program actions that States

are directed to perform. The petition requirement applies only to discretionary EPA actions under CWA Section 303(d). The petition requirement does not apply to non-discretionary EPA actions under Section 303(d) (i.e., to approve or disapprove a TMDL or list after it is submitted by a State, or to establish a TMDL or list if EPA disapproves a State's submission). For non-discretionary EPA actions, no petition is necessary and a party seeking to compel EPA action may proceed directly to litigation.

The petition requirement will apply to discretionary EPA actions such as establishing TMDLs for a State in the alleged absence of State TMDL activity. Several groups objecting to what they view as slow State progress on TMDLs have filed lawsuits to compel EPA to step in and develop TMDLs or lists for a State. In such cases, EPA feels that litigation is premature because the Agency has not yet made a final decision whether or not to establish TMDLs or lists in place of the State. Absent a final Agency decision, EPA believes that courts lack a factual record to evaluate. If instead a party petitions EPA to take the desired discretionary action, EPA's response to the petition will constitute final Agency action and the record established by the Agency in responding to the petition will provide a record that is reviewable by courts in any subsequent litigation.

Baseline

Groups dissatisfied with State progress on TMDLs or lists have filed more than 40 cases involving about 34 States. High costs have been incurred by all litigants: plaintiffs in preparing and arguing the cases, and States and EPA in defending and settling them. EPA believes that petitions filed under the Administrative Procedures Act provide an opportunity to resolve many TMDL program issues in a less costly manner, without litigation.

Incremental Cost

EPA believes that compliance with this requirement will reduce costs for both the Agency and the public. Preparing and filing petitions will cost the public far less than preparing and filing lawsuits, and it is far less resource-intensive for the Agency to respond to petitions than to lawsuits. The Agency believes that many issues call 'tee resolved through the petition process, avoiding litigation and the unnecessary expenses that all parties would otherwise incur. To the extent that petitions do not avoid lawsuits, the Agency believes that most of the effort to prepare and respond to petitions would have occurred anyway as part of the litigation process. The Agency acknowledges the possibility that the low cost of preparing petitions might result in more petitions being filed by parties that otherwise would have been deterred by the cost of litigation. Nevertheless, on balance, the Agency believes that compliance with this existing requirement would benefit all parties, and reduce the overall cost that otherwise would be incurred.

V. IMPACT ON THE AGENCY'S INFORMATION COLLECTION REQUEST

The Agency is proposing a revised Information Collection Request for certain activities under the 303(d) program to replace the existing 3-year ICR which expires on 3/11/99. As discussed in chapters I and IV, the Agency's ICR estimates the burden for States' preparation of 303(d) lists, and for the Agency's activities regarding the listing program as well as for reviewing and approving TMDLs. This chapter summarizes the information developed earlier in this report regarding the extent to which the proposed regulation affects the burden of both the States and the Agency for those activities identified in the proposed ICR, which covers the period from 3/1/99 to 2/28/01.

Estimated Change In State Burden

The next ICR will encompass the next listing which is currently due in the year 2000. As discussed extensively in chapter I, the proposed regulation increases the total State effort for the year 2000 listing by 36,740 hours. As estimated in the ICR, at a cost of \$40.37 per hour, this amounts to a total cost increase of nearly \$1.5 million for the period.

Since the next ICR covers the period ending 2/28/01, a portion of the increased effort for the next listing after the year 2000 listing should also be considered. However, this additional burden depends on whether the current 2-year listing cycle is continued, or whether a 4- or 5-year listing cycle is adopted instead:

If the current 2-year listing cycle continues, then half of the 2002 cycle would need to be included in the ICR as well. As discussed in chapter I, the proposed regulations increase the total State effort for listings subsequent to the year 2000 listing by 6,050 hours. If half of this effort occurs in 2001, then the proposed regulations increase the burden in the ICR by 3,025 hours or about \$ 122,000.

If a 4- or 5-year listing cycle were adopted, it does not seem likely that those activities that account for the increased burden due to the proposed regulations would take place as early as 2001. Therefore, an additional adjustment for an increased burden associated with the next cycle would be unnecessary.

Therefore, the total adjustments to the respondent burden as estimated in the Agency's ICR for the period ending 2/28/01 for the 303(d) program range from an additional 36,740 hours at \$1.5 million if the listing cycle is lengthened, to 39,765 hours at \$1.6 million if the current 2-year listing cycle is maintained.

However, for future ICRs, as discussed in chapter I, if the listing cycle is lengthened, savings that result from avoiding future listing cycles (i.e., under Option C, States would only be required to submit 4 lists instead of 8½ lists through 2015) would more than cover the increased burden to States that results in the near term from the proposed regulations. As summarized at the end of chapter I, through the year 2015, the proposed regulations would increase the States' annualized costs by \$230,000 but this would be more than offset by the \$320,000 annually that States would save if the listing cycle were lengthened. The net annualized savings would be about \$90,000 per year.

Estimated Change in Agency Burden

As discussed in chapter IV, EPA's estimates of its ICR burden for the period ending 2/28/01 for the 303(d) program already include consideration of both:

1. Increases in the States' baseline level of activity which results in an increased annual burden for the Agency of 5,580 hours, and
2. Increases in Agency activity that might result from the proposed regulations, amounting to an additional annual burden of 452 hours or \$18,247.

Altogether, the Agency has proposed to increase its burden estimate in the proposed ICR by a factor of 11 from the current ICR, representing an increase in burden from 602 hours annually to a total of 6,634 hours annually. Since the Agency's estimates already reflect expected changes in burden, no additional revisions to the estimates for the Agency's burden are needed to further reflect the proposed regulations.

However, as noted in chapter IV, if the listing cycle were lengthened, then the Agency would realize savings that would offset the increased burden associated with the proposed rule.

Attachments 1 & 2 (Worksheets for Chapter III)

ATTACHMENT 1 - 12/21/08
CURRENTLY LISTED WATERS SCHEDULED FOR TMDL DEVELOPMENT AFTER 2013
 Based on Current Commitments As Reflected in The 1996 TMDL Lists As Of 12/11/98
 & Interim DEFAULT Assumption of a 22-Year Time Frame Where Schedule Is Not Available

EPA Region & State	# Listed Waters	Schedule		Current Commitments After 2013 ^a					
		Years	End Year	2016	2017	2018	2019	2020	Total
I Connecticut	134	12	2010	---	---	---	---	---	---
Maine	257	13	2011	---	---	---	---	---	---
Massachusetts	~ 1,000	15	2013	---	---	---	---	---	---
New Hampshire	171	12	2010	---	---	---	---	---	---
Rhode Island	~ 100	12	2010	---	---	---	---	---	---
Vermont	~ 200	e 15	2013	---	---	---	---	---	---
II New Jersey	1,048	9	2007	---	---	---	---	---	---
New York	576	11	2008	---	---	---	---	---	---
Puerto Rico	~ 140	8	2004	---	---	---	---	---	---
US Virgin Islands	9	13	2011	---	---	---	---	---	---
III Delaware	174	13	2011	---	---	---	---	---	---
DC	~ 38	12	2010	---	---	---	---	---	---
Maryland	197	10	2008	---	---	---	---	---	---
Pennsylvania	1,035	3	2001	---	---	---	---	---	---
Virginia	~ 939	12	2010	---	---	---	---	---	---
West Virginia	696	10	2008	---	---	---	---	---	---
IV Alabama	114	7	2005	---	---	---	---	---	---
Florida	712	16	2014	---	---	---	---	---	---
Georgia	571	7	2005	---	---	---	---	---	---
Kentucky	231	13	2011	---	---	---	---	---	---
Mississippi	~ 700	e 10	2008	---	---	---	---	---	---
North Carolina	477	10	2008	---	---	---	---	---	---
South Carolina	658	12	2010	---	---	---	---	---	---
Tennessee	351	11	2009	---	---	---	---	---	---
V Mexico	798	15	2013	---	---	---	---	---	---
Indiana	153	d 22	2020	7.0	7.0	7.0	7.0	7.0	34.8
Michigan	312	13	2011	---	---	---	---	---	---
Minnesota	155	13	2011	---	---	---	---	---	---
Ohio	839	d 22	2020	38.1	38.1	38.1	38.1	38.1	190.7
Wisconsin	541	e 13	2011	---	---	---	---	---	---
VI Arkansas	52	14	2012	---	---	---	---	---	---
Louisiana	195	12	2010	---	---	---	---	---	---
New Mexico	189	g 20	2018	---	---	---	---	---	---
Oklahoma	533	13	2011	---	---	---	---	---	---
Texas	147	10	2008	---	---	---	---	---	---
VII Iowa	54	d 22	2020	2.5	2.5	2.5	2.5	2.5	12.3
Kansas	~ 771	8	2006	---	---	---	---	---	---
Missouri	~ 77	20	2018	3.9	3.9	3.9	---	---	11.6
Nebraska	~ 112	10	2008	---	---	---	---	---	---
VIII Colorado	~ 35	12	2010	---	---	---	---	---	---
Montana	877	10	2008	---	---	---	---	---	---
North Dakota	133	13	2011	---	---	---	---	---	---
South Dakota	171	13	2011	---	---	---	---	---	---
Utah	205	-12	2010	---	---	---	---	---	---
Wyoming	63	10	2008	---	---	---	---	---	---
IX American Samoa	1	e 5	2003	---	---	---	---	---	---
Arizona	~ 102	13	2011	---	---	---	---	---	---
California	512	13	2011	---	---	---	---	---	---
CNMI	2	4	2002	---	---	---	---	---	---
Guam	3	12	2010	---	---	---	---	---	---
Hawaii	18	9	2007	---	---	---	---	---	---
Nevada	38	13	2011	---	---	---	---	---	---
X Alaska	65	e 10	2008	---	---	---	---	---	---
Idaho	~ 728	8	2006	---	---	---	---	---	---
Oregon	1,188	10	2008	---	---	---	---	---	---
Washington	~ 631	15	2013	---	---	---	---	---	---
TOTALS	~ 20,198	Including default		51.4	51.4	51.4	47.5	47.5	249.3
		Excluding default		3.9	3.9	3.9	---	---	11.6

^a - approximate / e estimate based on draft schedule / g "grandfathered" -- Consent Decree allows 20 years
 d temporary and conservative default assumption of 22-year schedule ending 2020.
 * assuming proportionate development over the life of the schedule -- estimates are shown to nearest 1/10

ATTACHMENT 2 - 12/21/98

ANALYSIS OF COST IMPACT OF TMDL ACCELERATION

FOR LOW-HIGH ASSUMPTIONS FOR THE TMDL DEVELOPMENT FOR STATES W/O SCHEDULES AND LOW-HIGH ASSUMPTIONS (1-2) FOR THE NUMBER OF TMDLS PER WATER
Discount Rate = 7% TMDL Cost = \$25,000

TMDL'S THAT WILL BE ACCELERATED DUE TO THE PROPOSED REVISIONS *

Assumption	2016	2017	2018	2019	2020	Total
High	102.791	102.791	102.791	95.091	95.091	498.555
Low	3.850	3.850	3.850	0.000	0.000	11.550

The level of precision shown is not intended to indicate degree of accuracy, but rather to facilitate the ability of reviewers to check the calculations. No rounding was done for the projections from Attachment 1.

COST OF TMDL'S THAT WILL BE ACCELERATED DUE TO THE PROPOSED REVISIONS

ASSUMING AN AVERAGE COST OF \$25,000 PER TMDL

Assumption	2016	2017	2018	2019	2020	Total
High	\$2,569,773	\$2,569,773	\$2,569,773	\$2,377,273	\$2,377,273	\$12,463,864
Low	\$96,250	\$96,250	\$96,250	\$0	\$0	\$288,750

1999 PRESENT VALUE FOR CURRENT SCHEDULE FOR POST-2015 TMDLS AT 7%

Assumption	2016	2017	2018	2019	2020	Total
High	\$813,524	\$760,303	\$710,564	\$614,332	\$574,142	\$3,472,866
Low	\$30,470	\$28,477	\$26,614	\$0	\$0	\$85,561

YEARLY COST & 1999 PRESENT VALUE COST OF DEVELOPING THESE TMDLS PRIOR TO 2015

	High	Low	
Uniform development starting in 1999 through 2015	29.3	0.7	TMDL/year
Cost per year from 1999 through 2015	\$733,168	\$16,985	Yearly Cost
1999 PV cost for TMDLs that have been accelerated	\$7,659,153	\$177,439	1998 PV

INCREMENTAL PV AND ANNUALIZED COST OF ACCELERATING TMDL DEVELOPMENT

Assumption	PV current	PV accel	Incr PV Cost	Annualized
High	\$3,472,866	\$7,659,153	\$4,186,287	\$400,730
Low	\$85,561	\$177,439	\$91,878	\$8,795

Senator SMITH. Senator Voinovich.

Senator VOINOVICH. I have as much concern as the other members of this committee regarding TMDL, and I have written you a letter on the 10th, and I am anxious to get your response back in terms of your rationale for the regulations in this area.

Ms. BROWNER. Mr. Chairman, without using Senator Voinovich's time but given the interest in TMDL, maybe before the end of the hearing I can have a few minutes to explain where we are and what we are thinking, if that would be helpful to the committee.

Senator SMITH. Certainly.

Ms. BROWNER. I do not want to use up your time since you are waiting for a response from us.

Senator VOINOVICH. Well, I—

Senator SMITH. We will do that after we complete the first round.

Ms. BROWNER. OK.

Senator SMITH. You can make those comments.

Ms. BROWNER. Thank you.

Senator VOINOVICH. Again, the 11 percent increase, I have not really sat down and looked at all the aspects of it, but, again, it is the last year of the Administration. From a public policy point of view, usually you do not have those kind of increases in administrative budget the last year of an administration. That is just an observation.

Ms. BROWNER. I am happy to explain why. I can give you maybe an individual example. Would that be helpful?

Senator VOINOVICH. Yes. Why do not you?

Ms. BROWNER. An example would be the financial assistance we want to provide to the States so they can upgrade their information system is in that portion of our budget request. That is a good example. That is \$30 million that we did not ask for last year.

Senator VOINOVICH. Yes. And I think that is good.

Ms. BROWNER. I mean, that is one example.

Senator VOINOVICH. That is something that would benefit the States in the future in terms of making decisionmaking and, quite frankly, give us more accurate information in terms of some of the environmental groups that pick stuff out and then go with it.

Ms. BROWNER. Right.

Senator VOINOVICH. OK.

Ms. BROWNER. And it is not a new program. I think you would agree it builds on a lot of work that we have had going on with the States. It happens to be that we are now in a place where that kind of financial investment makes sense, and that is why you see an increase in our operating budget request.

Senator VOINOVICH. OK.

Ms. BROWNER. Another area where we are asking for an increase—and, again, this is an example where Congress gave us a new law and we are moving into additional phases, as Congress required us to do, of implementing the laws in food safety. I mean, you have things you told us to do on certain schedules, and more of those schedules are coming up on us, and so we are seeking additional money to meet the direction of Congress.

Senator VOINOVICH. OK. We will, as I say, that is a good one to look at for you again.

Ms. BROWNER. OK.

Senator VOINOVICH. Then we have some other increases and decreases. Clean air partnership, new, unauthorized initiative, \$85 million; clean water Great Lakes grant program, \$50 million. That is a new, unauthorized initiative. Rural drinking water technical assistance grants—well, that is an unauthorized earmark that we like.

Ms. BROWNER. That is an earmark. We can talk about earmarks, \$450 million worth.

Senator VOINOVICH. The point is, you know, you have got \$50 million in here for the Great Lakes. That is my favorite subject. And \$50 million for 31 sites—how long do you—if we authorize the \$50 million, how fast do you think you could identify the 31 areas where you would spend the money?

Ms. BROWNER. We would work with the States to identify the areas. There is also a State map. The money is actually, it, a very reasonable and a wise investment because it leverages State dollars.

Senator VOINOVICH. Well, the thing is that \$50 million for 31 sites is—and even with the match, it is not—I think the thing that really disturbs me is that we have identified, for example, contaminated sediment problems in the Great Lakes. The Ashtabula River, for example; Saginaw Bay; Sheboygan; Grand Calumet River, Indiana; Buffalo River, New York; and Duluth Superior Harbor, Minnesota and Wisconsin. Those are serious problems, and I want to know—they are already working. For example, Ashtabula is a \$42.4 million project, and it is underway.

Are you going to give priority to some of these areas that are already underway and where the money could make a difference—

Ms. BROWNER. Yes.

Senator VOINOVICH.—or are we going to just take \$50 million and divide it up 31 ways and have a lot of projects out there?

Ms. BROWNER. No. You and I both know this is a serious challenge in the Great Lakes. I think what is important here is that for the first time ever an Administration has come forward and said, "Let us put \$50 million." Is it enough money? I am the first to say it is not enough money. Do I wish it could be a lot more money? Absolutely. But I do not know why we would all walk away from \$50 million to help address a real problem.

Senator VOINOVICH. Well, we are using some of the WRDA money for some of those projects, like the Ashtabula River situation.

Ms. BROWNER. I understand what you are saying.

Senator VOINOVICH. And I am just saying that if you are really—it is a question of how do you do the most good. But you have got projects that could be finished up with \$50 million, and my suggestion is that if you are going to do this there ought to be a priority that gives—your priority list should really give serious consideration to the important projects. And if they are underway, you are much better off putting the money into those projects and getting them finished than it is to have them laying out there and start another 31 projects.

Ms. BROWNER. Senator, we would be happy to work with you. The point is to move money out to these sites. I do not disagree with what you are saying, that if you can, for a small investment, get a bunch of projects done and then move on to some new ones, that certainly makes sense to me.

What we have said in the budget explanation is that these should be awarded competitively.

I agree, you cannot just divide it up and act as if all sites are equal and as if all expenditures are equal.

Senator VOINOVICH. Well, I am talking about the competitive thing would be to take the projects that are already underway that are there that have been identified and curing them would make a—

Ms. BROWNER. I agree.

Senator VOINOVICH. I want to go fly fishing for steelhead on the Ashtabula River.

Ms. BROWNER. Let us do it.

Senator VOINOVICH. The fact is that is a project that has been around that I worked on from the time that I was Governor, and it seems to me that if you are going to spend \$50 million, you put the money into those projects that—

Ms. BROWNER. I agree.

Senator VOINOVICH.—are ready to go or all ready to be finished and make the difference there. That is the only point I am making.

Ms. BROWNER. And we do not disagree. We certainly, I do not think, would be adverse to some kind of Congressional direction, although we never seek riders or earmarks in the appropriations bill, but one could recommend to us that in a competitive process we give prioritization to those kinds of sites.

We would be happy to work with you on something like that.

Senator VOINOVICH. And, last but not least, is that I would sure like to have an authoritative opinion from you guys on the reauthorization of the State revolving loan fund, 1699 which I have introduced.

Ms. BROWNER. Sure. We would welcome that opportunity.

Senator SMITH. Thank you, Senator.

Senator Chafee?

Senator CHAFEE. Thank you, Mr. Chairman. And thank you also, Administrator, for the kind comments at the beginning of the session. I am sure that the new chairman will continue to provide strong bipartisan leadership of the committee.

I do not have any questions.

Ms. BROWNER. We are doing OK on your brownfield sites?

Senator CHAFEE. I do not have any questions on the budget. I have questions on how we proceed on some of the important issues—CSOs, Superfund, brownfields.

Ms. BROWNER. OK.

Senator SMITH. You are going to get very popular on this committee if you do not have any questions.

[Laughter.]

Senator SMITH. Administrator Browner, you asked for a moment or two on TMDL?

Ms. BROWNER. On TMDLs, yes, let me begin by saying it has been made increasingly clear to me—I was aware that there is a fair amount of confusion about what TMDLs are. If I might just take a quick moment to explain them as simply as possible.

Total maximum daily load—the whole idea is that, for those rivers, for those streams that are still not fishable and swimmable, as Congress promised the American people they would be with the Clean Water Act, that it is a very sensible approach.

You analyze that river, you figure out how much extra pollution is in there, and you set loads. You set a total maximum daily load: How much pollution needs to come out to make that river or to make that stream fishable and swimmable.

Then you write a plan as to how you are going to get those pollution reductions. And the plan—and these plans are done by the States. They are not done by EPA. They are done by the States. And the plan could include best management practices. Specifically in the Federal Register we point out that plans should include best management practices.

This is not about requiring a top-down permitting regime. This is about allowing States the ability to develop water-body specific, not one-size-fits-all, but water-body-specific plans for reducing those pollutants that are causing the ongoing problem to the water.

It is up to each State to decide how to get there. They want to go get it all from some point source, that is their business. If they want to apportion it—they do not have to apportion it based on how much each party is putting in. There is nothing that requires that. But they could decide to apportion it. It might be more cost effective to apportion it.

But this is the final portion of the Clean Water Act as originally passed in 1972 that will take us to the original commitment of fishable, swimmable, drinkable. There is no other way to get there than these water-body specific plans.

Senator SMITH. I think it is the addition of the new requirements, though, that is the issue here—logging—

Ms. BROWNER. But, again, remember, the State has to write the plan. The State can decide what steps it will take to meet its plan. That is up to the State to decide.

You are talking, I think, about forestry. That has been a big part of this discussion. We believe that the vast majority of forestry activities properly done will continue as is. They will continue as is. They will not need permits. They will not need permits.

Let me be clear about something—

Senator SMITH. I think that the perception—

Ms. BROWNER.—the Clean Water Act does not allow EPA to require a Federal permit. States may have some State laws requiring permits, but a Federal permit for nonpoint source is not a Federal requirement. Federal law does not allow it, period. It does not allow it.

Senator SMITH. Yes, I did not mean to lead into this, but since you made a comment on it, I think the issue, as I see it, is this: What happens if your Agency disapproves a State plan involving forestry matters and identifies the forestry activity as a source of nonpoint source pollution in that river?

Ms. BROWNER. Well, a State could decide that certain—a culvert coming off of certain lands should be subject to a permit. They clearly have that authority today. Nothing in this proposal changes that.

But you know what? In some ways this issue is no different than all of the issues we deal with at EPA. We do not have the ability to manage these programs on a day-to-day basis. It is not in our interest to simply say no to a State. It is in our interest to work it out.

One of the reasons we are proposing 15 years is we realize the magnitude of working all of this out with the States. But it is not as if we are sitting here with a lot of people with nothing to do who are going to yank this stuff back and do it. That is simply not the world.

Senator SMITH. But your regional administrators are certainly giving the impression that there is a possibility that some of the State plans would be disapproved and that they could pull forestry practices into this TMDL. That is clearly the impression, at least,

in Region 1. I cannot speak for all the regions, but certainly it is in Region 1.

Ms. BROWNER. Clearly, something got said in Region 1, because this is the third time I have heard today about something in Region 1. We need to go back and check what got said, and if a—it sounds like a bad impression got created. We need to correct that, and we will do our best to figure out what got said there.

[The information follows:]

The Agency believes Senator Smith's statement likely refers to statements made at the EPA public meeting on TMDLs held in Concord, NH, on December 12, 1999, or several press articles that appeared around that time regarding the public meeting and the silviculture industry. At the public meeting, there were questions about how a State's TMDL limits would be translated into effluent limits for applicable point sources.

There was also discussion at the December 12 public meeting regarding silviculture and Region 1 staff made clear that in New England only two segments of surface waters are listed as impaired due to silviculture. These listed segments are in Vermont. Therefore, the TMDL rule would not likely have any appreciable effect on the silviculture industry in New England. That fact aside, it is important to note that the TMDL rule allows that if silviculture activities are contributing to a violation of a water quality standard, the State has the discretion, rather than the obligation, to bring that activity under a permit.

Realizing the concerns about silviculture, Region 1 staff briefed representatives from all four of the New Hampshire Congressional offices on February 2. The meeting was hosted by Jeff Rose of Senator Smith's staff. Region 1 reiterated that there was no listing of impaired waters in New Hampshire due to silviculture. Mr. Rose requested that EPA Region 1 meet with the forestry industry to answer any remaining questions they have; and, that meeting is scheduled in New Hampshire for March 21.

But, Mr. Chairman, you know, several years ago I was called up here to testify a number of times on clean air plans, and everyone was screaming that we were going to simply reject a bunch of State or city clean air plans. The truth of the matter is we work really hard to avoid that. We work really, really hard not to ignore the standards or the pollution reductions but to get the plan to a place that works.

Senator Voinovich, we worked really hard with your State, and I think right now we have approved plans in your State, and I can go through other States. I know we do in Rhode Island. We do in New Hampshire.

So, similarly, with water we are going to have to work really hard to get these programs into a place that the States can manage them.

Senator SMITH. Let me just make one more point on this. My time has expired and I am going to go to Senator Warner for the end of the first round.

The way I understand it now, if EPA fails to require a permit from loggers, for example, which you are saying you may do, then—

Ms. BROWNER. No.

Senator SMITH.—a citizen suit can be filed, and so here we go down this track again. See, this is—

Ms. BROWNER. The track is about 20 years long and—

Senator SMITH. I know, but it can disrupt a lot of practices that, in my view, are not contributing to the problem.

Ms. BROWNER. The first thing that would have to happen is the State did not write a plan, but we should start there. If a State does not write a plan—as is true in the Clean Air Act and other

acts—we can be forced to come in and write the plan. We can be sued. We can be forced to come in and write the plan.

As is true in the Clean Air Act, so it is true in the Clean Water Act. If we are forced to do it, the range of options that we get to choose from—because Congress tied our hands in a way they did not tie the State's hands—is a smaller range of options.

If you go back to the Clean Air Act, the States have a long list of things they can decide as to how they are going to get air pollution reductions. We have only written one major air pollution reduction plan since I have been at EPA, and that was in the first year, and it was for Los Angeles, and eventually they did it, but we were forced by a judge to do the first round of it.

The options, the menu we chose from was, like, this big [indicating small amount]. The menu they could choose from was about that big [indicating large amount]. That is why they ended up doing it.

The same is true here. If you got to that place—and there is no reason to ever get there—the options that we have become quite small, which makes it in everyone's interest, including ours, to get the States to do it.

That is point one.

Point two is the States can give credits—and we will make this as clear as we possibly can—for best management practices. No permit. Best management practices.

Your State has some great things going on in terms of stream bank reforestation. We know that nature actually does a better job of solving this problem than just about anything any of us are ever going to dream up. We can now measure how well nature does the job. Credits can be given.

So if you need 4,000 pounds of phosphorus reduction and the State can show that putting back in the buffer zones along the stream gets you 4,000 pounds of reductions, it is over. That is it. They met the requirements of the Clean Water Act, all through best management practices—practices that are frequently in the interest of the forestry industry, themselves.

Foresters do not necessarily want the water rushing off the land. They need the water on the land to help grow the trees. So every time they do these kind of stream bank restorations, not only does the water in the stream benefit, but, quite frankly, they benefit. It is good business for them.

Senator SMITH. Thank you for clarifying that.

Senator WARNER?

Senator WARNER. Thank you very much.

Did our colleague from Ohio have a question?

Senator VOINOVICH. No, you go ahead. You have not had a chance to speak this morning.

Senator WARNER. All right. I can remember the day when you came before this committee for confirmation. According to my recollection that is 7 years ago.

Ms. BROWNER. Yes. My son was in kindergarten and he is now in middle school. I used to pick him up. He picks me up.

Senator WARNER. That is a point of record, Madam Secretary. I think that we should pause for a moment. According to my calcula-

tions, you have set the record for a Cabinet officer in this particular post.

Ms. BROWNER. Yes, by many years over.

Senator WARNER. Well, do not be too modest about it.

[Laughter.]

Ms. BROWNER. I could not find another job.

[Laughter.]

Senator WARNER. Well, I add to those comments of others.

Ms. BROWNER. Thank you.

Senator WARNER. My congratulations, just as a citizen of this country and as a Member of the Congress. I think you have done well.

Ms. BROWNER. Thank you.

Senator WARNER. And every time that I have had a matter which I felt had to come to your attention, while I may not agree with your resolution of my question, you certainly have been very gracious and accommodating.

Ms. BROWNER. Thank you.

Senator WARNER. I thank you.

Now, having said all of that, let us get down to a subject which my dear friend over here is an expert on, and that is transportation—and our new chairman of the Transportation Subcommittee—and that is that the Circuit Court of Appeals here in Washington, DC, struck down your regulations that gave certain flexibility. You know what I am talking about. Flexibility on the conformity regulations.

Ms. BROWNER. Conformity. We have a lot of court cases in.

Senator WARNER. I was a law clerk on that before you were born.

Do you want to take a minute to get briefed on that?

Ms. BROWNER. No. I know what conformity is. I apologize. I just was not sure which case.

Senator WARNER. But I say to my colleagues, there are some 20 States that have projects that they are concerned whether or not they can go forward.

Now, the sequence of events—and you can elaborate—is that the Circuit Court of Appeals here in the Nation's capital, one of the outstanding circuit courts in America, struck it down. You then re-wrote another set of regulations.

Ms. BROWNER. Right.

Senator WARNER. Presumably your lawyer is saying, "Madam Secretary, we feel this meets the court's criteria."

Ms. BROWNER. Yes.

Senator WARNER. Well, speaking as a former law clerk, I disagree. I think you need a legislative solution.

Ms. BROWNER. Yes.

Senator WARNER. And this committee, the Bond bill, which we are familiar with, begins to work in that area. I think that you ought to sit down with our chairman and ranking member and figure out—and Senator Bond and others—what we can do to put together that legislative fix.

Do you want to comment on that?

Ms. BROWNER. I think we agree that if we could reach the appropriate legislative fix that might make everyone's life easier. We have done some work up here to try to find that, and we are also

working within the Administration, for example, with the Department of Transportation, to try and figure out what that legislative fix would be. We have also looked at administratively what we might need to do.

I am probably wading into dangerous ground here, but, as we understand it, Senator Bond's bill I think gave us a basis that we could all perhaps look at working together, but we are under the impression it has now been changed.

If that is the case, the change that we have been informed of we would be troublesome. But, having said all of that, we would be more than happy, Mr. Chairman, however you want to proceed to get a group of people together and to really see if we can fashion something.

Senator WARNER. I am definitely speaking for myself, and I want my chairman to, of course, speak for the committee, but I think we would better to find a legislative fix. We cannot allow 20 States, given the enormous employment, jobs associated with these projects, much less the alleviation of all the problems, whether it is clean air or transportation or gridlock or anything. My State is a virtual crisis situation on gridlock.

We have got to go ahead with these transportation projects in 20 States. I offer—and I am going to defer to my chairman, but I offer to sit down with Senator Bond and others. It should be a bipartisan solution.

Ms. BROWNER. I agree.

Senator WARNER. So you will commit to get on with it.

Ms. BROWNER. Absolutely.

Senator WARNER. Is that right?

Ms. BROWNER. Absolutely. And one of the things we might want to do in the meantime is just make sure the staff has been briefed on our discussions with the Department of Transportation, because I think we have made some progress there and we should share that with people. That may affect how people want to move forward.

Senator WARNER. OK. I think what I am told by my senior staff is that the Bond bill just reincorporates the old regulations that were struck down by the court, which said simply you did not have the flexibility. Well, we want to give you the flexibility.

Ms. BROWNER. OK. Well, we would be happy to talk to you. I think that what we worked out with DOT could be used.

Senator WARNER. OK.

Ms. BROWNER. This could be done administratively and not jeopardize projects.

Senator WARNER. You have indicated you would work with us?

Ms. BROWNER. Let us work with you. Right.

Senator WARNER. Mr. Chairman, I would like to be a part of that group, if I may, designated by you to try to reach a solution.

I thank you and wish you luck.

Ms. BROWNER. Thank you.

Senator SMITH. You will be a part of it, Senator Warner.

Senator WARNER. Thank you very much.

Senator SMITH. Senator Lautenberg?

Senator LAUTENBERG. Yes. Thanks, Mr. Chairman.

I was pleased to hear the comments by the Senator from Virginia, who is known for his gallantry and grace, and what he said, Administrator Browner, I think was—

Senator WARNER. [returning to the dais] I will have to come back if you are saying nice things about me. Thank you very much.

[Laughter.]

Senator LAUTENBERG. The gentleman from Virginia is known for his manners, and I said gallantry—

Senator WARNER. Thank you. I appreciate that.

Senator LAUTENBERG. So here we are—

Senator WARNER. Spoken like a retiring Senator.

[Laughter.]

Senator LAUTENBERG. But not a retiring personality. That I can tell you.

Anyway, I think what Senator Warner said, Administrator, goes for all of us. You have done a terrific job.

The question I ask, having said that, is brownfields. I see a reduction in the funding level from last year, 600,000. Is that the number?

Ms. BROWNER. I think we are at 91-something.

Senator LAUTENBERG. Let us see what we have got here. It is \$91.6 million decrease from the enacted level of \$600,000. And, even though \$600,000 and \$91 million is—

Ms. BROWNER. That is a good question. I do not know what happened—

Senator LAUTENBERG.—is not a lot, but, you know, that could be—

Ms. BROWNER. You are right.

Senator LAUTENBERG.—three sites.

Ms. BROWNER. You are right.

Senator LAUTENBERG. And these things work so well, so I would appreciate it if you would take a look at that.

[The information submitted by EPA follows:]

BROWNFIELDS REDUCTION

Question: The President's fiscal year 2001 budget request reflects a reduction of 18.3 workyears and \$588,400 to the Brownfields program. Why is there a reduction in this key program area?

Response. In fiscal year 2001, the Agency is requesting a total of 88.3 workyears and \$91,626,700 to support work performed by the Offices of Solid Waste and Emergency Response (OSWER), Enforcement and Compliance Assurance (OECA), the Administrator's Office, and the General Counsel (OGC).

OSWER is requesting a total 78.0 workyears and \$89,773,000, representing a reduction of 0.8 FTE and an increase of \$845,000 from the fiscal year 2000 enacted operating plan. This increase is attributed mainly to work force costs.

Major changes in the make-up of OSWER's fiscal year 2001 Brownfields Budget are planned:

\$4 million will be redirected from Brownfields assessment pilots to Brownfields Cleanup Revolving Loan Fund pilots. This redirection reflects a shift in program emphasis as more Brownfields communities move into the cleanup phase.

\$3.4 million will be redirected from Brownfields assessment pilots to Brownfields Technical Support. This redirection reflects development and implementation costs of information systems to collect, track and report key Brownfields program data. It also reflects the increased cost of oversight and technical support for the increased number of Brownfields pilots.

\$4 million, which will be derived from assessment pilot funding, will be invested to award 10 new Brownfields Showcase Communities. These communities will serve

as models to demonstrate the benefits of interagency cooperative efforts in addressing environmental and economic issues related to Brownfields.

OECA is requesting a total of 4.5 workyears and \$427,800, representing a reduction of 17.5 FTE and \$1,504,800 in payroll. The reduction is not reducing the Agency's commitment to Brownfields. In prior years, the key program area for Brownfields contained enforcement resources for both comfort letters, which support the Brownfields program, and for Prospective Purchaser Agreements, which are generally used at NPL sites. Since the Brownfield program is targeted toward lesser contaminated sites, the resources for Prospective Purchaser Agreements have been redirected into the "Maximizing PRP Involvement (including reforms)" key program area to more accurately reflect the program which they support. Resources for comfort letters are still found under the Brownfields key program area at the same level as fiscal year 2000.

The Administrator's Office is requesting a total of 5.8 workyears and \$1,190,900, representing an increase of \$71,400 in payroll. OGC's request of \$235,000 does not change from the fiscal year 2000 enacted operating plan.

Senator LAUTENBERG. I was also pleased to see that you are proposing an increase in funding for RCRA.

Ms. BROWNER. Yes.

Senator LAUTENBERG. Corrective action.

Ms. BROWNER. Yes.

Senator LAUTENBERG. I hope that will provide additional cleanups at these ongoing facilities.

Ms. BROWNER. Yes.

Senator LAUTENBERG. How do these funds get used, because there is some confusion about cleaning up sites under RCRA versus cleaning up sites under Superfund.

Ms. BROWNER. I think the significant distinction—and you, yourself, said this—is that Superfund is really for the abandoned sites, the out-of-commissionsites, while RCRA is for facilities that are ongoing operations.

Senator LAUTENBERG. So it is prevention?

Ms. BROWNER. Well, it is cleanup.

Senator LAUTENBERG. Right.

Ms. BROWNER. I mean, there are a lot of facilities, unfortunately, that are continuing to operate but have significant contamination problems. In fact, we just did a prioritization so that we could target those with the greatest problems, and then we enter into agreements with the owners, with the operators to secure the cleanup while they continued in operation.

Senator LAUTENBERG. So how much was that increase?

Ms. BROWNER. It is almost, I think, \$12 million increase.

Senator LAUTENBERG. All right. But hopefully that would preclude having to deal with these sites 1 day in the future as Superfund sites?

Ms. BROWNER. That is the real hope, to keep them out of Superfund and to get them cleaned up and keep them economically viable operating facilities. I mean, that is what you want to do.

Senator LAUTENBERG. I understand that you had to shut down the website last week.

Ms. BROWNER. Well, our entire computer system—our website, everything.

Senator LAUTENBERG. Well, I have heard from industry and environmentalists about that, and the Agency provides a very important service with that, and that was some of the discussion we heard earlier.

Ms. BROWNER. Yes.

Senator LAUTENBERG. What are the circumstances that forced that shutdown, and what do we do about making sure it does not happen in the future?

Ms. BROWNER. Well, like any large agency, like any large private computer site, we are constantly working to upgrade our security systems. Hackers become smarter, technology gets better, and so we are constantly working, and we had been working with GAO and with several committees about a series of firewalls and upgrades that we would be making.

Unfortunately, our vulnerabilities or potential vulnerabilities were made public. That then led the experts that we were working with to counsel us that we were now a target for hackers. Our ability to install all of the firewall systems that we had planned could not be done in about the 8 hours they recommended to us that we had before we became the target of hackers. So I made the decision that we would take down the system.

We have been able to bring back up our public portion of the system and parts of our internal system, although we are not at 100 percent. We do have firewalls that we have been able to get.

By going down, we were able to put firewalls in more quickly. We would have been able to put them in more slowly while we stayed up, but, once it was put out to the public, we were really left with very little decision.

I think it was unfortunate. I think that information we provide to the public is important information. We get about 52 million visits a month to what we refer to *www.epa.gov*. It is an equally important tool for us in terms of all the work we do all day long. And I am not just talking about e-mail. I am talking about very complex analytical work. We need to access data bases which we now have some limitations on and will until we can get some more procedures in place.

Let me just close by saying all of us face a challenge in this new cyberspace world, and I think that, for the Administration and for the Congress, it is going to be important to work together when we encounter potential problems, and I know this committee will do that.

There is no evidence that we had any real problems in terms of any confidential business information, but there is always the potential. And we can probably better serve the needs of the American people if, you know, we can set aside whatever our political differences may be on any host of issues and work together, and we are committed to doing that. We do have the firewalls in now, and hopefully in the next several days we will be able to get all of the public access fixed. We are still going to have some issues internally that will take us a while.

Senator LAUTENBERG. Yes. Sometimes we invite problems unnecessarily.

Ms. BROWNER. Right.

Senator LAUTENBERG. And it ought not to happen, because there are a lot of excessively playful people out there, some of them—

Ms. BROWNER. Yes.

Senator LAUTENBERG.—criminally, many of them criminally.

Ms. BROWNER. Right.

Senator LAUTENBERG. That does not help any of us. It is a theft of efficiency and good judgment.

Ms. BROWNER. Right.

Senator LAUTENBERG. That is too bad.

Mr. Chairman, I have just one other thing, if I might, and that is, the administrator I know is a strong supporter of Better America Bonds for brownfields. What is the extra impetus that that lends us besides just the borrowing? What does it do to expand the cleanup of these brownfield sites, as you see it?

Ms. BROWNER. Well, Better America Bonds—in addition to greenspace preservation, the Administration has also proposed that it would be available for brownfields that are going to be converted into greenfields. It may make sense in a community—which, they may be redoing maybe their waterfront, and part of it they want for economic redevelopment, part of it may be for commercial residential mixtures, but part of it they want as greenspace. They want it restored. They want to go back in and replant it.

And so the Administration is proposing to Congress that Better America Bonds would be available for the brownfields into greenfields. We sort of feel like we have another program for brownfields into redevelopment, and it is a very successful program, and so this would be for brownfields into greenfields.

Senator LAUTENBERG. And there are tax credits?

Ms. BROWNER. It is a tax credit bond. Right. It drives down the cost to communities for greenspace preservation very, very dramatically.

In some ways, if you think about it, we think nothing of asking future generations to share in the cost of a highway that gets built today, so why not ask future generations to share in the cost of greenspace preservation or brownfields into greenfields that they will enjoy in the future?

I think it is about 30 States that have a program of this nature, and the President and Vice President felt very strongly that within a balanced budget the Administration should become a financial partner.

There are no regulations, there is no requirement, but if States wanted to, if communities wanted to take advantage of this, they could apply and receive the tax credit bond.

Senator LAUTENBERG. But the purposes for which this money is used is specific, in turn.

Ms. BROWNER. Right.

Senator LAUTENBERG. Mr. Chairman, I would ask for a unanimous approval to submit a letter sent to Senator Baucus by Chuck Fox, who is the assistant administrator for water.

Senator SMITH. Without objection, it is part of the record.

[The letter to Senator Baucus from Mr. Fox follows:]

ENVIRONMENTAL PROTECTION AGENCY,
Washington, DC.

The HONORABLE MAX BAUCUS,
U.S. Senate,
Washington, DC

DEAR SENATOR BAUCUS: Thank you for your recent letter to EPA Administrator Carol Browner expressing your interest in proposed regulations to restore the over 20,000 polluted water bodies around the country. You asked for a detailed assessment of issues relating to water pollution from forestry operations The Adminis-

trator asked that I work with the Office of General Counsel to respond to your questions. We expect to have a detailed response available shortly.

I want to take this opportunity to assure you that EPA is not proposing that water pollution caused by diffuse runoff be regulated under the Clean Water Act or be required to have a permit under the Act. This type of pollution should be accounted for in the Total Maximum Daily Load (TMDL) program, but commitments to reduce it can be based on a "reasonable assurance," of implementation of control measures. A "reasonable assurance" of implementation can be established based on voluntary or incentive-based programs of proven effectiveness. Where States identify forest operations as contributors of pollutants to polluted waters, States may choose to assign pollution reductions to these sources and may use effective, nonregulatory programs to reduce pollution.

In the case of point source discharges of storm water, EPA recognizes that these discharges are generally exempt from the Clean Water Act permit program under section 402(p)(1) of the Act Permit issuing authorities (i.e. the State in 42 States and one Territory), however, have the option of requiring a specific storm rearer discharge to have a permit under section 402(p)(2)(E) of the Act, but only where the discharge causes environmental harm (e.g. nonattainment of a State water quality standard). EPA has proposed in the TMDL regulations to change existing regulations to allow this narrow designation authority to be used with respect to discharges from forest road building and harvesting, as well as the storm water discharges from other sources to which the authority now applies. EPA could use this designation authority only where EPA developed a TMDL for a State. As we will discuss more fully in our more detailed response to your letter, the authority to designate a storm water discharge as needing a permit is based on the Clean Water Act definition of a "discharge" and "point source" and recognizes that such sources are those that add pollutants from a discrete and discernible conveyance (see *Sierra Club v. Abston Construction*).

Finally, it is important to note that section 402(p)(2)(E) of the Clean Water Act and EPA implementing regulations provide that the permit issuing authority has the discretion, rather than the obligation, to designate a discharge of storm water as needing a permit. Discharges of storm water that cause the nonattainment of a water quality standard may be required to have a permit or may be managed through other programs, at the discretion of the permit issuing authority. These discharges, even once identified by a State or EPA as causing environmental harm, would not become automatically subject to a citizen suit for failing to have a permit unless and until they were subsequently designated as needing a permit.

I look forward to working with you on this important problem.

Sincerely,

J. CHARLES FOX,
Assistant Administrator for Water.

Senator LAUTENBERG. I thank you, Mr. Chairman.

Thank you, Ms. Browner.

Ms. BROWNER. Thank you.

Senator SMITH. Before I turn it over to Senator Voinovich, I just want to clarify something.

As I understand the numbers, yes, it was a \$600,000 decrease in your brownfields grant program, but you also had a \$4 million increase on your revolving loans, so you really do not have a decrease.

Ms. BROWNER. I think the total program goes up.

Senator SMITH. Right.

Senator LAUTENBERG. As young people often say, Mr. Chairman, "I want it now."

Senator SMITH. Instant gratification.

Senator Voinovich?

Senator VOINOVICH. I would just like to go back to a statement that you made about the fact that the Agency has tried to work with the States in terms of complying with the regulations. I specifically, as you know, have a real disagreement with your Agency. Ohio and many other midwest States and southern States, in order to comply with the NOx requirement, came back with a plan of 65

percent reduction that would have allowed us to achieve the standard before even your proposed 85 percent, and then it was rejected, and now we are in court over that issue.

On this TMDL, there are a lot of people that do not believe that you have the authority under the law to regulate nonpoint sources.

Ms. BROWNER. We agree. We do not.

Senator VOINOVICH. You do not?

Ms. BROWNER. Right. That is not what TMDLs are about.

Senator VOINOVICH. OK. But, if I heard you correctly, you are going to regulate them indirectly because you are going to require States to come up with a plan to deal with nonpoint pollution?

Ms. BROWNER. No. States are required to come up with a plan that provides reasonable assurances that the plan will meet the pollution reduction targets of the TMDL. That is what States have to do. They have to come up with a plan.

And if there are best management practices on forest lands that are reducing pollution, they can claim credit for that. There is no requirement.

Maybe this is the confusion. I know there is a huge amount of confusion. Maybe people think that the only way you can write down on your plan and get credit for pollution reductions is if there is a permit that has either been required or been issued.

Senator VOINOVICH. Our farmers in Ohio—

Ms. BROWNER. That is not true.

Senator VOINOVICH.—are livid over the prospect of having to get a discharge permit in conjunction with their farms.

Ms. BROWNER. We are very clear about this. The Clean Water Act—

Senator VOINOVICH. Especially when Ohio is a leader in the country in no-till farming. I mean, they have done a terrific job in terms of trying to deal with runoff and—

Ms. BROWNER. We agree.

Senator VOINOVICH. But you are saying that ultimately, after these States submit their plans, that—I mean, you can reject the plans and you can say they are not adequate.

Ms. BROWNER. And then we work with the States to resolve them over a period of time.

But, Senator, I think it might be worth just clarifying one thing. And I will say it again. We are very clear that the Clean Water Act does not allow or require a Federal permit for nonpoint source.

Moreover, the Clean Water Act does not allow or require a Federal clean water permit for agriculture. There is a distinction in the law with silviculture for agriculture.

Having said all of that, why would not—this is just common sense now. Why would we not give credit to a State who is getting pollution reduction from no-till farming? We would. We do now. Why would we not?

We do not really care where you get the pollution reductions from. We just want the pollution reductions. And if you can get them all through current activities, you can get them all through no-till farming, fine. But because a State gives us a plan saying that is where they are going to get them from does not mean that suddenly a Federal permit can be required. The Federal law is clear.

But, having said that the Federal law is clear, we would be silly to walk away from these very good practices.

Senator VOINOVICH. Well, I can say that there is a great deal of concern out there today about it, and I think part of the problem is that some of us have had some bad experiences, and so we are reluctant in these areas, and so we are going to have to be very clear about what you are and what you intend to do, and we are anxious to monitor that.

Ms. BROWNER. I agree. Thank you.

Senator VOINOVICH. That is it.

Senator SMITH. Thank you, Senator Voinovich.

We are just about to wrap up here, Administrator Browner. Let me just followup on a couple of points for some clarification.

As you know, we were talking about the authorization process, which is new, and we always are dealing with individual bills, and what I am looking at is to try to get a set of priorities between statutes so that we get a little more consistency there.

Ms. BROWNER. Yes.

Senator SMITH. Can you work with us on it? What is your feeling on it, Number 1? And, Number 2, can you and your staff work with us on this over the next few months—

Ms. BROWNER. Certainly.

Senator SMITH.—as we try to put it together. The goal is honorable, I assure you. It is to try to get a better handle on the whole process, rather than just looking down a tunnel at each individual—

Ms. BROWNER. We agree. And I certainly think the time has actually been ripe for some time now to see if we cannot craft something of that nature. I think it is hugely difficult. There are various groups that have tried to make proposals along those lines and have sort of walked away, the most recent being Electronic-form, Mr. Ruckleshaus, who came to believe that a lot of this integration across the statutes was going to occur, was occurring, and would occur naturally, and that in some ways that was probably going to be the best.

We are happy to sit down with you, because it is something that we are constantly grappling with, which is: how do you weave together the various requirements and how do you end up not being in a situation where you are simply moving the pollution around? OK, the air office solved it, but, guess what, it just popped up in the water office, the exact same thing.

We have had some successes and we have had some challenges, and we would be happy to share those with you.

Senator SMITH. Another area that we would like to focus on, as well, is what EPA is doing in the innovative technology area. Just two things. I am sure they are on your Agency's screen, but you can comment on them if you wish. If not, we can followup on it later.

Ms. BROWNER. Yes.

Senator SMITH. But in the area of MTBEs, microbes, as to where we are on that, we are going to have to make a decision. I have committed to trying to resolve this MTBE matter one way or the other. I am not sure just where we are going to go yet, whether we are going to go to a ban or whether we go to a waiver for the

Governors or how we deal with it, but obviously it is a huge problem, as you know, and we have to deal with it, so I would be interested in what microbes do in that area.

Second, are you familiar with the proposal out there on encapsulating phosphorus on the manure, specifically chicken manure? There is a company out there—Fisher Scientific, for one. There may be others—that could have a tremendous impact on nonpoint source pollution as it deals with various manures.

I would certainly like to—

Ms. BROWNER. Apparently Mr. McCabe knows about this chicken manure issue.

Senator SMITH. What do you think?

Ms. BROWNER.

I do not.

Senator SMITH. Ready to jump right on that one?

Mr. MCCABE. I am the expert on chicken poop.

[Laughter.]

Mr. MCCABE. This is something that is being explored. I believe it is an alum-based approach. It is something that I think is being experimented with by a couple of chicken integrators.

We would certainly be willing to look further into it and see whether there could be broad application of it.

Ms. BROWNER. I think at this point any solution to manure is something we are willing to explore.

Senator SMITH. Well, I did talk to Mr. McCabe about that privately, and I think it is something we ought to pursue, and I think also the microbe issue for MBTA also.

Senator SMITH. Bob Perciasepe just handed me a note. It says that we do have about \$1 million in research for cleanup and treatment of MTBE-contaminated sites and we will talk to you all about looking at a microbial test as part of that.

Senator SMITH. And the final point that I wanted to raise—we do have some questions we will submit for the record, but let's get us out of here at 12:30. Let me just ask this.

In terms of the whole gamut of the clean air problem—and we all know you have that as a high priority—in terms of getting to some solution, how do you feel about the so-called “bubble concept” where we seek a level of reductions?

You just said a moment ago—which perked me up a little bit—where you said, “I do not care how we get there, as long as we get there.”

Ms. BROWNER. Yes.

Senator SMITH. And you were not talking about air, but in general.

Ms. BROWNER. Water.

Senator SMITH. And so I think this, to me, is a concept that is kind of exciting. It is not new. We have done it before.

Ms. BROWNER. For acid rain.

Senator SMITH. Acid rain—it worked.

Ms. BROWNER. Right.

Senator SMITH. And I think that if we are going to get to stop, to get out of court, to stop the feuding between regions, it just seems to me that we ought to put everything on the table and let us just see where we can get with this.

I just put that out there as an area that I would like to explore. We are not, as you know—and I have talked to Senator Inhofe in some detail about this. We are not trying to go down the fast track to reauthorize this year, but I think we can certainly do a lot of ground work toward getting a resolution of this matter and be ready to go next year.

Ms. BROWNER. We would be happy to work with you. I think that the acid rain program has been incredibly successful and cost effective. It has turned out EPA's estimates on that actually turned out to be closer than anybody's of what it would cost to achieve the reductions. Even we were way above what it has cost. I think they are trading right now at about \$78 a ton, which does not capture the full cost, but is an indication of just how successful it has been.

Second—and it is really important for people to know this—the acid rain emissions credit trading program in terms of the pollution reductions has all but 100 percent compliance. No other program has that level of compliance. You know why? Because the business community is not going to buy a credit that is not what it is supposed to, so it becomes sort of a self-enforcing system. There is no other program at EPA that achieves 100 percent—not at EPA, not in a regulated community, that achieves 100 percent compliance.

The business community becomes the check and balance in it.

So we long had the position, for example, in dealing with the long distance transport of ozone, that a emissions credit trading program for NOx would make a lot of sense.

I think the challenge in any of these is going to be the cap. I mean, all these programs work once you set a cap. And I am sure we will have large discussions between various regions of the country over what an appropriate cap would be, but we certainly think that—

Senator SMITH. But that is the beginning.

Ms. BROWNER. That is the beginning.

Senator SMITH. If we can decide on that, if we can get there, we can work out how to get there, so I think we need to work on that.

Ms. BROWNER. Right.

Senator SMITH. I would just conclude, we talked about a number of issues here today, and I am pleased to hear your views on them. We did not mention the Everglades, which is something of importance to you, I know. But, in terms of where our priorities are, I think it is fair for me to give you some indication of that publicly, as well as I have already privately. I think we are looking at the possibility of brownfields, certainly looking at the clean air issue regarding the bubble concept. RCRA we did not mention here this morning, but something we would like to work with you on, the Everglades, WRDA initiative, and MTBE.

Ms. BROWNER. That is a good list.

Senator SMITH. Those are certainly five high priorities, and we will not get them all done, but if we could get four out of the five we would be doing well and finish up clean air perhaps early next year.

I appreciate your being here this morning.

Ms. BROWNER. Thank you.

Senator SMITH. It has been very informative, and I know you had a long morning because you testified before the Agriculture Committee, but thank you very much, Administrator.

Ms. BROWNER. Thank you very much.

Senator SMITH. Before I adjourn, let me just say if Senators have questions for the record we will leave the record open until Friday at close of business at 5.

The hearing is adjourned.

[Whereupon, at 12:35 p.m., the committee was adjourned, to reconvene at the call of the chair.]

[Additional statements submitted for the record follow:]

STATEMENT OF HON. CRAIG THOMAS, U.S. SENATOR FROM THE STATE OF WYOMING

Thank you Mr. Chairman for holding today's hearing. I know I join you and other Members of the Committee in wanting to ensure that the Environmental Protection Agency's budget priorities reflect the programs Congress entrusted the Agency to administer.

Mr. Chairman, as in previous years, the EPA's budget contains funding for several initiatives which I believe, do not accurately reflect Congressional intent. For fiscal year 2001, the Administration is requesting the largest increase ever for the EPA's operating budget, while at the same time, cutting funds for popular and successful state-administered programs. Certainly, it is this Committee's responsibility to see that the Agency's focus and funding resources are directed to programs the EPA was authorized to implement.

Again Mr. Chairman, I thank you for holding today's hearing and I look forward to hearing the Administrator's justification for these funding proposals.

STATEMENT OF HON. LINCOLN CHAFEE, U.S. SENATOR FROM THE STATE OF RHODE ISLAND

Thank you, Mr. Chairman, for conducting this important hearing on the President's fiscal year 2001 budget request for the Environmental Protection Agency. I would also like to extend my appreciation to EPA Administrator Carol Browner for being here today to discuss EPA's budget.

As Chairman of the Subcommittee on Superfund, Waste Control, and Risk Assessment I am particularly interested in hearing your testimony regarding funding for Superfund, brownfields, Underground Storage Tanks, and the Resource Conservation and Recovery Act. In today's atmosphere of limited resources, we must ensure that every dollar spent returns the highest yield possible. I am especially interested to hear how EPA plans to ensure that cleanup activities continue at an acceptable rate. In addition, I am eager to hear testimony on EPA's efforts to enhance brownfields redevelopment. This is an issue with important implications for Rhode Island, and I commend Administrator Browner on the focus EPA has placed on brownfields.

I would also like to take this opportunity to express my concern about the proposed \$550 million cut to the clean water revolving fund, which would have adverse impacts on Rhode Island and many other states. This is a program that has worked incredibly well and is supported by virtually all stakeholders. Last year, Congress refused to cut this important program and I urge my colleagues to once again protect funding for the clean water S-R-F.

Thank you, Mr. Chairman.

STATEMENT OF HON. JOSEPH I. LIEBERMAN, U.S. SENATOR FROM THE STATE OF CONNECTICUT

Thank you, Mr. Chairman. I'd like to welcome Administrator Browner and her staff. I know that this time of year is extremely busy in the agencies, and budget oversight hearings are sometimes not so eagerly anticipated. EPA's budget has a significant impact on the quality of life in our states and across the nation, and I look forward to hearing Ms. Browner's testimony regarding the President's \$9.5 billion budget request for the Environmental Protection Agency (EPA) for fiscal year 2001.

Let me begin by saying that in general I am pleased to see an increase in funding for nonpoint control grants, the proposal to allow states to use State Revolving Fund (SRF) money for estuary management, and strong funding for the Climate Change Technology Initiative. The latter proposes promising investments in energy efficient technologies and partnerships with businesses, schools, and state and local governments to reduce greenhouse gas emissions. Programs like Energy Star and PATH have already saved consumers money and improved industrial efficiency, demonstrating that emissions reductions can be achieved in a cost-effective manner. New funding proposals in these areas will continue to spur critical technology innovation.

I have serious concerns about other aspects of the President's budget request, particularly in the area of Clean Water Programs. First, the President's request for the Office of Water reduces funding by 20 percent from the fiscal year 2000 level of \$3.465 billion to \$2.782 billion. The Clean Water State Revolving Loan Fund (SRF) is cut by more than 40 percent from the fiscal year 2000 enacted level of \$1.350 billion to just \$800 million.

In Connecticut, the Clean Water SRF has been an important funding mechanism for addressing combined sewer overflows and water infrastructure projects that improve the quality of the Long Island Sound. In fact, Connecticut has one of the highest contributions to the SRF programs, matching Federal contributions with 4–5 times the level of state funds, making this an extremely cost-effective Federal program. In recent years, Connecticut received about \$15 million in SRF funding while contributing \$50 million in state bond authority. While the modest increase in nonpoint source grants offsets the cut to the SRF in part, it is not adequate to cover the existing needs, nor does it leverage the existing support of the state SRF contributions.

I am even more disappointed by the apparent status in this budget of the Long Island Sound cleanup and management program in light of the President's requests for significant and, in several cases, increased funding for a number of other regional programs. Several of us in Congress have been appealing for full funding for the LIS program for years. Yet despite constant attempts to increase the budget levels to an amount consistent with the needs of the Sound and the \$3 million authorization, this budget includes a mere \$500,000—only half of last year's enacted amount.

I am particularly troubled today because the Long Island Sound Program has enabled Connecticut and New York to make significant progress on improving water quality in ways that directly support the administration's goals in the Clean Water Action Plan. The Department of Environmental Protection and Natural Resources Conservation Service have already conducted a unified watershed assessment for the Sound. In November 1999, Connecticut and New York proposed a nitrogen total maximum daily load (TMDL), probably the most significant proposal set forth in the nation in terms of technical evaluation and resource commitments. In comments submitted to EPA on the Agency's proposed TMDL rule, the State of Connecticut supported the revisions but highlighted the need for flexibility and funding in order for the proposal to be effective. The state specifically estimated the cost for the Long Island Sound TMDL as \$20 million—the bulk of which has been borne by the states and localities.

And while the needs for Connecticut and New York to achieve the goals of the Long Island Sound Comprehensive Management Plan for restoring water quality are roughly \$1 billion, EPA has not even included \$1 million in this year's budget. For comparison, the President has included \$19.5 million for the Chesapeake Bay, \$4.1 million for the Great Lakes, \$4 million for the Gulf of Mexico, and \$2.2 million for Lake Champlain.

Administrator Browner, I hope you will address these questions during your testimony. I look forward to working with the EPA in the coming year to enhance our nation's environmental resources.

STATEMENT OF HON. CAROL M. BROWNER, ADMINISTRATOR, U.S. ENVIRONMENTAL PROTECTION AGENCY

Mr. Chairman and Members of the Committee, I am pleased to be here today to present the Clinton-Gore Administration's FY 2001 budget request for the Environmental Protection Agency. Our \$7.3 billion request, and the \$2.15 billion Better America Bonds program, continue and strengthen the Administration's commitment to the environment and public health by providing our children, our communities with cleaner water, cleaner air and an improved quality of life.

I would like to begin, Mr. Chairman, as I did last year, by thanking this distinguished Committee for its support over these past few years. I believe we have fostered a productive working relationship, which has enabled us to work together towards our mutual goal of protecting public health and the environment. I look forward to working with you, Mr. Chairman, as I know the strong bond between our Agency and this Committee will continue through your leadership.

I am particularly proud of this budget request: \$7.3 billion will directly support our operating programs, air and water infrastructure, and the trust funds. \$2,150,000,000 are for the Better America Bonds program, to help communities invest in green-space preservation, water quality improvements and brownfields cleanup. Most importantly, this budget includes an 11 percent increase, or \$384 million, for EPA's core environmental programs.

Once again, the President presents a budget that maintains fiscal discipline while making essential investments in environmental priorities. This Administration repeatedly has demonstrated that we can enjoy enormous prosperity—including the longest economic expansion in history and a plan that will eliminate our national debt for the first time since 1835—while implementing important environmental and public health protections. The American people know that our Nation does not have to choose between a strong economy and a healthy environment.

Over the past 7 years of unprecedented economic progress, this Administration, working with this Committee, has distinguished itself through unprecedented environmental progress.

The 1996 amendments to the Safe Drinking Water Act, a fine example of what we can achieve when the Committee and the Agency work together, coupled with the President's Clean Water Action Plan, have contributed greatly to cleaning up the Nation's waters and to making drinkable, fishable and swimmable water a reality for all Americans.

We have set the tightest emissions standards ever for cars and the first such standards that apply equally to SUV's and minivans.

We have placed special emphasis on protecting our Nation's greatest resource—our children—through actions like working for, winning and implementing the Food Quality Protection Act, that for the first time puts emphasis on protecting the health of infants and children from pesticide risks.

We have provided communities with new access to more information about toxic chemicals released into their communities by greatly expanding the public's right-to-know.

Under this Administration, more than three times as many toxic waste site cleanups have been completed than were completed in the previous 12 years of the Superfund program.

And we have taken the unprecedented step of revitalizing communities by accelerating the cleanup of Brownfields and returning the land to productive use.

The budget we are announcing today preserves this record of success and builds on it.

As it has since the inception of the Clinton-Gore Administration, the EPA budget builds upon those core environmental programs that are the backbone of this Agency. This includes: setting environmental standards; environmental enforcement and compliance; and direct implementation programs for the states.

In FY 2001, the Clinton-Gore Administration is requesting an 11 percent increase, or \$384 million, over last year in its operating programs to allow the Agency to meet the American public's expectations for a safe and healthy environment. The increased money in the operating budget is directed at programs for cleaner air and water, safer food and sound science.

For water, the President's FY 2001 budget bolsters the successes we have achieved by providing \$495 million in Clean Water state grants, including a \$50 million increase to specifically address polluted runoff, the largest current threat to our Nation's water quality.

The Great Lakes, among our Nation's most revered and beautiful water resources, receive \$50 million in the President's Budget for a new initiative that will continue the progress we have made in their cleanup and restoration. Through this initiative, states and communities will be eligible for competitively-awarded matching funds to improve water quality through stormwater pollution control, wetlands restoration and remediation of contaminated sediment.

We are stepping up our efforts to identify and restore polluted waterways by providing an additional \$45 million in state grants for the Administration's new Cleaner Waters Across America program. The program is aimed at waterways still in need of improvements. Resources will be used to develop specific restoration plans for some 20,000 waterways across the Nation.

Consistent with our goal to provide sufficient capital so that, over the long-term, \$2 billion in average annual assistance will be available to localities, the President's Budget provides \$800 million for the Clean Water State Revolving Fund—a flexible funding mechanism designed to help communities provide clean, safe and healthy water. This year, we are requesting authority to give states the option of using 19 percent of their Clean Water SRF in the form of grants to fight polluted runoff. I am asking Congress to join us in providing states with this additional flexibility to provide clean and safe water for the public.

The Administration has taken the most aggressive actions in history to provide cleaner, healthier air for all Americans, and this budget continues that effort.

The President's Budget is providing \$85 million for the Clean Air Partnership Fund—fund that will provide resources to states, cities and tribes to help reduce air pollution. This initiative will foster public-private partnerships to help communities achieve their own clean air goals in ways that make the best sense for them.

In addition, to continue reducing the air pollution that contributes to global warming, \$227 million has been proposed for the third year of the Climate Change Technology Initiative. This program promotes voluntary measures that reduce energy use and bring down the energy bills of all Americans, while also reducing greenhouse gas emissions.

Furthermore, to continue to strengthen our relationships with our state and tribal partners, this budget provides \$215 million in state and tribal grants to help find solutions to air pollution. Of these resources, \$5 million will be granted to states and regional planning bodies specifically to combat the problem of regional haze—one of the most obvious effects of air pollution.

The Administration remains dedicated to improving children's health by providing \$68 million for the Children's Environmental Health Initiative. These funds go for critical programs that fight such threats as lead contamination and childhood asthma. We also are continuing our dedication to food safety through the Food Quality Protection Act by providing \$75 million for its implementation so that the American public will continue to enjoy one of the safest, most abundant, and most affordable food supplies in the world.

The President's Budget continues expanding the public's right-to-know about toxic releases in their local communities through several initiatives. One of those new efforts is a new environmental information system that will provide the public more critical environmental information than ever before. Under this Initiative the Administration will provide \$30 million to work with the states to provide one of the Nation's greatest sources of shared, key environmental information.

To better protect America's communities, the Administration is again proposing the Better America Bonds Initiative. This Initiative, which has increased by more than \$1 billion over 5 years from last year's proposal, will help communities grow in ways that ensure sustainable economic growth by providing them the resources they need to address local smart-growth challenges like protecting water sources and shrinking parklands as well as cleaning up brownfields. Through this initiative, the Administration will provide the authority to issue \$2.15 billion for investments by state, local, and tribal governments in 2001.

This budget provides almost \$1.45 billion to continue our progress in cleaning up the Nation's Superfund toxic waste sites. The Agency plans to complete construction at 75 sites for a total of 830 construction completions by the end of 2001. This will keep EPA on a path towards meeting the President's goal of 900 construction completions by 2002. In the Clinton-Gore Administration, about three times as many Superfund sites have been cleaned up—as in the 12 previous years of the program. The new budget proposal will continue that progress. In addition, to help communities return their abandoned or idled industrial properties to productive use, the President has committed \$92 million for the extremely successful Brownfields redevelopment program.

The Clinton-Gore budget request for FY 2001 protects public health and the environment by ensuring that we will be able to provide America with cleaner water, cleaner air, better protection of children, more protection for individual communities and a continuing cleanup of toxic wastes and restoration of Brownfields.

The Clinton-Gore Administration's budget protects the health and the environment of the American public. Last year, however, Congress "earmarked" from EPA's budget some \$470 million for more than 320 special projects in individual congressional districts. These earmarks direct money from the Agency's core programs—the very programs that keep the environmental cops on the beat, use the best science to set standards to protect our children, and support the work of our partners, the states, tribes and local governments. That is why we are not carrying over last year's earmarks, and that is why we will continue to oppose earmarks this year.

We also remain strongly opposed to any legislative riders that undermine our country's basic environmental laws. Our goal is to work with this Committee, which has the jurisdiction over almost all of this country's environmental laws, to provide real protections for the Nation. I strongly believe that the authorizing committees, the traditional forum for discussing these issues, should again guide the process.

By providing our children and our communities with cleaner air, cleaner water and an improved quality of life, this budget maintains the Administration's dedication to the protection of public health and the environment. It ensures that the Environmental Protection Agency will be aggressively adding to 7 years of unprecedented environmental progress built under the Clinton-Gore Administration.

These are the highlights of our fiscal year 2001 request. I look forward to discussing with you, as the year progresses, these initiatives and innovative financing mechanisms. I would be happy to answer your questions at this time.

RESPONSES BY CAROL BROWNER TO ADDITIONAL QUESTIONS FROM SENATOR SMITH

Clean Water State Revolving Fund

Question 1. EPA has revised the estimated total cost of 20-year wastewater infrastructure needs to be an estimated \$200 billion. American communities absorb 90 percent of the wastewater infrastructure costs nationwide. States continue to have strong support for the Clean Water State Revolving Fund. The President's request for the Clean Water State Revolving Fund is \$800 million, a \$550 million reduction from the fiscal year 2000 enacted level of \$1.35 billion. The President also requests to allow States to reserve up to an amount equal to 19 percent of their CWSRF capitalization grants to provide grants of no more than 60 percent of the costs of implementing eligible nonpoint source and estuary management projects.

The committee recognizes that EPA's budget office estimates that \$800 million will allow the SRF to revolve at the \$2 billion level. We also recognize the need to have the budget remain consistent with the balanced budget agreement. However, the \$550 million reduction in SRF from fiscal year 2000 does not demonstrate an effort to take care of the infrastructure needs that exist today.

How does EPA plan to take care of these needs? Will this budget allow us to take care of the infrastructure needs, as well as the TMDL, NPDES permit backlog, and CAFO permits?

Response. Financing for wastewater infrastructure has been, and will continue to be, a partnership between EPA, other Federal agencies, State governments, and local communities. By capitalizing the SRF such that it will be able to provide at least \$2 billion in financial assistance to local communities over the long run, the Agency is providing a substantial source of financing consistent with historic levels of Agency contribution. Over \$17 billion has already been provided to capitalize the CWSRF, more than twice the original Clean Water Act authorized level of \$8.4 billion. Total SRF funds available for loans since 1987 reflecting loan repayments, State match dollars, and other sources of funding are approximately \$30 billion, of which \$26 billion has been loaned to communities (\$4.2 billion was available for loans as of June 1999).

The Agency acknowledges that the preliminary needs estimates may be higher than previously estimated. Given that, and the fact that we now have a better understanding of the water quality challenges that States and local governments face, the Administration believes it would be useful to have a dialog with the Congress and the broad range of stakeholders on the future funding levels and project eligibilities of a reauthorized Clean Water SRF program.

With respect to TMDLs, the President's request includes a substantial increase (+\$45 million) explicitly to assist States in the development of TMDLs. This increase, coupled with the required State contributions for this Section 106 increase, State flexibility to use up to 20 percent of their also increased Section 319 grant, and other financial assistance would provide sufficient resources to allow States to substantially meet their TMDL obligations in 2001 based on the estimated cost of the new TMDL regulation proposed in August 1999. While earmarked for TMDL development, this increase in grant funding should allow States to reallocate existing base grant funds to their most significant priorities, including addressing their NPDES permit backlog and issuing permits for certain concentrated animal feeding operations. It is also critically important that the Congress provide full funding for the Agency's operating programs under which the Agency provides substantial technical support for State TMDL development and NPDES permitting efforts.

Question 2. Has EPA analyzed the broader package of investments used to help State and local governments such as the Department of Housing and Urban Development and the Department of Agriculture's Rural Utility Service to name a few,

in determining the adequate levels of funding for the SRF? Could you explain how all these sources will provide the adequate level of funding to take care of the infrastructure needs?

Response. We estimate that total State, local, and Federal spending for the construction of municipal wastewater treatment for calendar year 2000 is currently about \$9 billion per year. Most of this spending has traditionally come from State, and local government or local sewage authorities. EPA or Congress have never committed to addressing all wastewater needs through the CWSRF. Federal financial support (from EPA, the Rural Utility Service of the Department of Agriculture, and the Department of Housing and Urban Development) accounts for up to one-third of the total annual spending.

Since expiration of the CWSRF authorization, much has been learned about the size and scope of water quality challenges the Nation faces. In that context, the Administration believes it would be useful to have a dialog with the Congress and the broad range of stakeholders on the future funding levels and project eligibilities of a reauthorized Clean Water SRF program.

Question 3. What other programs did EPA see as needing greater funding so as to reduce the SRF by \$550 million from the fiscal year 2000 level?

Response. The Agency believes its request for the Clean Water State Revolving Fund represents a substantial investment in needed infrastructure improvements. In the case of the CWSRF, the Agency is honoring and expanding its commitment to capitalize the Fund such that it will be able to provide at least \$2 billion in annual financial assistance over the long-term, a level consistent with historical levels of wastewater funding through EPA. Since program inception, over \$17 billion has been invested in the CWSRF—a level more than twice the original Clean Water Act authorization. Total SRF funds available for loans since 1987 reflecting loan repayments, State match dollars, and other sources of funding, are approximately \$30 billion, of which \$26 billion has been loaned to communities (\$4.2 billion was available for loans as of June 1999). The fiscal year 2001 budget level for the CWSRF continues to ensure the viability of the Fund. In terms of future funding for the CWSRF, the Administration believes it would be useful to have a dialog with the Congress and the broad range of stakeholders on the funding levels and project eligibilities of a reauthorized CWSRF program.

EPA's fiscal year 2001 budget request reflects support for the numerous areas requiring focused attention on some of the most pressing threats to a clean and healthy environment. Ensuring all Americans live in a clean and healthy environment requires efforts addressing all sources of pollution and all means by which pollution threatens human health and the environment.

In the area of water quality, nonpoint source pollution is the largest remaining threat, and EPA is dedicated to addressing water quality through increased funding in the Nonpoint Source Pollution grants, the water quality State grants addressing Total Maximum Daily Loads (TMDLs), and our new Great Lakes initiative grant program. Threats to human health along the U.S.-Mexico Border are of particular concern, and EPA is responding by investing in infrastructure financing for this geographic area susceptible to waterborne diseases.

Cleaning America's air is also a top priority. Over one-third of Americans still live in areas where the air does not meet the new air quality standards. In fiscal year 2001 EPA is investing in three major areas to achieve clean air goals through cost-effective and innovative means: the Clean Air Partnership Fund, Climate Change Technology Initiative, and State and tribal air grants. The Clean Air Partnership Fund will be a catalyst for innovative local, State, and private partnerships for air pollution. Meeting the Climate Change challenge requires investments from across the Federal Government as we address the significant threat that global warming poses to public health and the environment. EPA's investment in air State and tribal grants will address regional haze and integrate those programs with approaches to reducing ozone and fine particulate matter.

In addition, EPA is committed to building a strong environmental presence on Tribal lands. To that end, EPA's investment in Tribal General Assistance Program (GAP) grants will help ensure the development of sustainable and comprehensive core environmental programs in Indian Country.

Other areas of EPA investment include protecting food quality, drinking water research, and integrating environmental information. Implementing the Food Quality Protection Act of 1996 poses multiple challenges, and EPA will continue working toward ensuring all Americans enjoy the safest, most abundant, and most affordable food supplies in the world. EPA's investment in drinking water research will continue to strengthen the scientific basis for safe drinking water standards. Finally, EPA proposes to invest in an initiative aimed at enhancing the coordination of data collection activities with States and to improve collection methods.

In sum, all of these vital resource investments are ensuring that EPA and its partners meet the multi-faceted requirements in achieving human health and environmental protection.

Section 319—Nonpoint Source

Question 4. Is EPA concerned with the way that States are allocating their funds in the SRF and/or 319 grant programs to a point that we need to require that up to 19 percent of the SRF be set-aside for Nonpoint Source programs? What States are failing to adequately prioritize their SRF projects?

Response. The proposal would not require that States provide grants from their CWSRF, nor would it reduce allotments of States that chose not to provide grants. The President's fiscal year 2001 budget proposal would allow States, at the Governor's discretion, to use up to 19 percent of their capitalization grant for nonpoint source and estuary management projects. Since its inception, the CWSRF has been a flexible, State-run program in which the States choose which projects to fund based on their water quality goals and needs. In fact, although the Clean Water Act establishes broad project eligibilities, States are not required to fund all types of eligible projects. Also, States determine the priority order of funded projects. Some States have made substantial progress toward meeting Wastewater treatment needs, but still have very large needs for control of pollution from nonpoint sources. Our intent is to provide the States additional flexibility, if they so choose, to direct a portion of their CWSRF funds into grants for nonpoint source and estuary purposes. Many of the States have communicated to us that they have a critical need for these nonpoint and estuary projects and have not been able to finance this work with loans alone. This is especially true for projects involving small and disadvantaged entities. Although we do not expect that all the States will use this flexibility, or may use only a portion of it, we believe that in order to make greater strides toward addressing nonpoint source pollution, it is appropriate to allow interested States to use the funds in the CWSRF in this manner.

Question 5. The budget calls for a 20 percent increase in 319 funds to a total of \$250 million. EPA is currently examining the States' upgraded 319 programs in making allocation determinations. How many State have been approved? How many States is EPA currently reviewing for approval? How many States have not submitted their programs?

Response. 45 States and six Territories have submitted upgraded programs; and 26 of these programs have been approved by EPA. Of the remaining 25 programs that have been submitted, EPA is nearing the approval stage. Specifically, EPA has provided written comments to the States/Territories on 21, and is currently preparing comments on the remaining 4. Five States have not yet submitted upgraded programs.

Question 6. In the States that have been approved would EPA consider these programs to be providing the "reasonable assurance" under the proposed TMDL program, that non point sources are adequately included in the State TMDL program?

Response. No, not solely by themselves. Enhanced State NPS programs will provide a stronger framework to better control NPS problems, including a clearer statement of short- and long-term goals; identification of public- and private sector partners who will help the State implement its program; a summary of watershed and state-wide programs in the States; a prioritization strategy to help the States focus on priority problems; a process to review Federal programs for consistency with the State program; and the incorporation of review and feedback mechanisms into their programs. The upgraded programs are not specifically required to provide reasonable assurance that TMDLs will be implemented, although some programs may in fact be capable of providing such assurance for some or all categories of sources that will need to be addressed to implement particular TMDLs. Under the TMDL proposed rule, the implementation plan for TMDLs must specifically describe how the TMDLs will be implemented including reasonable assurance for NPS. For NPS, reasonable assurance would mean that the controls are specific to the pollutant(s) of concern, implemented according to an expeditious schedule and supported by reliable delivery mechanisms and adequate funding. We assume that in most, if not all, cases, implementation plans for TMDLs involving NPS controls will take advantage of the programs, authorities and approaches encompassed in the State's overall NPS program.

Question 7. The increase of 20 percent is outlined as another source of funding for the proposed revisions to the Total Maximum Daily Load program. Would this 20 percent set-aside be allocated to those waters that are solely impaired by nonpoint sources?

Response. EPA's 2001 budget is proposing an increase of 25 percent in the Section 319 State NPS grant program (from \$200 million to \$250 million). Under EPA's current 319 grant guidelines, States have the flexibility (at their discretion) to use up to 20 percent of their 319 funds for NPS program development needs, specifically including developing TMDLs for waters impacted by NPS. States will continue to have this flexibility in 2001.

Total Maximum Daily Loads

Question 8. The budget calls for an increase in Section 106 grants from \$116 million to \$161 million (\$45 million increase) with a State cost share requirement of 40 percent of project costs. The budget calls for this increase, coupled with use of up to 20 percent of the 319 grants and possibly other unidentified sources to provide sufficient resources to allow States to meet their TMDL obligations in 2001 based on the estimated cost of the EPA's TMDL proposed regulation.

The proposed rule states that the incremental costs to States at less than \$25 million per year and that the private sector would incur no costs. The budget states it based the number on the proposed regulation and not the existing TMDL program and calls for Federal and State dollars in just the Section 106 program of \$75 million.

Has there been a change in EPA's estimated costs of the proposed TMDL program?

Response. No. Per our cost analysis released with the proposed TMDL rule, we estimate that the incremental costs to States to carry out those proposed requirements beyond the current TMDL program as \$10 to \$24 million annually.

Question 9. If not, why does proposed budget provide dollars in excess of the \$25 million suggested in the proposed rule?

Response. The proposed 106 increase of \$45 million, with 40 percent State match, is intended to help States carry out current TMDL program requirements as well as the incremental costs of the proposed rule. We appreciate that States face substantial resource needs in carrying out the existing TMDL program as well as their other Clean Water Act responsibilities. According to the 1998 303(d) list, there are roughly 20,000 impaired waters nationwide with an average of 2 pollutants per water that will require TMDLs. Our 2001 budget justification indicates that States can take advantage of flexibility provided under Section 319 grants (i.e., to use up to 20 percent of nonpoint source grant funds to support nonpoint source-related TMDL needs) and other funding sources to address incremental requirements associated with the new regulations if the final rule in fact results in additional needs. As a result, our request is not premised on any specific incremental needs antler the proposed rule.

Question 10. Has EPA previously based budget allocations on a rule that has not been finalized?

Response. No.

Question 11. If so, could you provide some recent examples?

Response. Not applicable.

Question 12. The Association of State and Interstate Water Pollution Control Administrators claim the costs to the States and the private sector could total many billions of dollars. In the case that the States can not implement the proposed TMDL program, and if these cost estimates are true, is EPA prepared to assume many of the State TMDL programs?

Response. We believe the ASIWPCA statement relates to their rough estimate of the direct additional pollution control and abatement costs necessary to achieve State water quality standards in their currently impaired waters, not the annual costs of carrying out the TMDL program itself. EPA is working with States and proposing a significant resource increase for TMDLs in the sec. 106 budget to help assure that States can and will succeed in carrying out their TMDL responsibilities. As required by recent court orders and consent decrees resulting from TMDL lawsuits, EPA is prepared on a case-by-case basis to backstop State TMDL development if necessary. EPA is also supporting increased funding for TMDL implementation (e.g., increase \$50 million for nonpoint source grants and State discretion to use 19 percent of their SRF for nonpoint source and estuary management project grants). In addition, the fiscal year 2001 budget includes significant increases in funding for USDA conservation programs.

Question 13. What portion of the budget will allow EPA to complete the increased NPDES permits that will be needed for those States that do not have delegated authority?

Response. Funding of the fiscal year 2001 President's budget request for the NPDES program would enable EPA to address the increased NPDES permits for those States that do not have delegated authority.

Question 14. The proposed TMDL program has the potential to force many silviculture and agriculture operations which have traditionally been nonpoint sources, to get Clean Water Act NPDES permits. The EPA is currently working on taking care of a backlog of NPDES permits. The EPA has proposed the need to have approximately 20,000 Concentrated Animal Feeding Operations permitted in the next 5 years. This work load seems dramatic over the next 5 years. The costs of many of these projects will be placed on the States. Does this budget adequately fund the States and/or EPA to allow for all these permits? What are the cost estimates for implementing the 20,000 CAFO permits?

Response. EPA is still refining its estimates of the number of CAFOs that will need to be permitted both to achieve full compliance with current regulations and under revised regulations to be proposed this December. EPA currently estimates that 18,000 CAFOs will receive permits. Many of the CAFOs will be covered by general permits which require fewer EPA, State and regulated community resources. As for EPA, it is important to fully fund the fiscal year 2001 request for the NPDES program which provides critical funding for addressing the permit backlog and permitting of CAFOs. With respect to silviculture, under the proposed regulations, forestry operations that are not causing significant water quality problems would not be subject to a permit as a point source. Even in cases where forestry activities are causing significant water quality problems, the State would have the options of determining whether other approaches, such as existing voluntary programs, are effective and sufficient to restore the health of the polluted water body.

Question 15. EPA has continued to work on the issue of urban sprawl and the need to protect green areas and redevelop brown areas. The TMDL proposal has a provision that would require a 1.5-to-1 offset provision while States are developing their TMDLs for all new and expanding point sources. According to many of the industries that would have to purchase these offsets, the provision will drive urban sprawl because the Publicly Owned Treatment Plants and others will be unable to expand to handle population growth and thus urban sprawl. How will EPA coordinate the need to reduce urban sprawl and implement the TMDL proposal?

Response. Decisions regarding urban sprawl are fundamentally a State responsibility. TMDL development is also a State responsibility, but EPA has the legal authority to approve TMDLs and to backstop State TMDL development. As part of their TMDL development process, States must include an allowance for future loadings that accounts for reasonably foreseeable increases in pollutant loads. States may choose to completely allocate the pollutant loading for a water body and thus leave no loading for future growth. EPA encourages State and local governments to adopt "smart growth" policies and requirements. Where adoption and/or implementation of "smart growth" policies and requirements will reduce future loadings, the allowance for future loadings may be reduced accordingly.

Question 16. What are the incremental costs the TMDL proposal will place on other agencies such as Natural Resource Conservation Service, Forest Service, FWS or the BLM?

Response. We did not make any cost estimates concerning other Federal agencies and the TMDL proposal. Federal agencies may and do participate now in State TMDL programs. Also, under Section 313 of the Clean Water Act, Federal agencies are responsible for complying with all State requirements for controlling and abating water pollution. The proposed TMDL rule, while clarifying and strengthening State TMDL development programs, does not provide any new Clean Water Act authorities to implement nonpoint source controls. Such controls will necessarily depend on existing Federal, State and local authorities and voluntary action.

Question 17. What does EPA believe to be the largest contributor to environmental risks facing the American public today? Specifically describe the hazard, health effects, and the number of people affected. Please provide a risk comparison for those hazards.

Response. EPA's programs address a variety of different risks, and each of the programs addresses risks that are significant. Unfortunately, comparing and ranking dissimilar risks is not an easy task. Some scientists question whether such rankings are possible or even useful, since science does not provide us with the information that allows us to compare different risks in equivalent terms. We are not able to compare the risks of high blood-lead among children in substandard housing to the risks posed by mercury in the Great Lakes or nitrogen in the Chesapeake Bay to the risks of cancer and other adverse health effects for a community with several chemical plants. We would like to be able to do this, but different people

will have different judgments about which risks are worst, and science does not provide the answers.

In addition, when setting priorities for EPA activities, risk comparison should not be the only consideration. The greatest reductions in health and environmental risks are not necessarily achieved by starting at the top of a list of greatest risks and working our way down. Instead, we have to consider the potential for reducing the risks posed by each hazard, taking into consideration costs, technical feasibility, and other implementation considerations.

Although there are limitations to our ability to compare risks, and limitations to the utility of such comparisons, EPA has undertaken a number of activities over the years to try to compare different kinds of risks. The first effort was an EPA report titled *Unfinished Business*, which was completed in 1987. This report relied on expert judgment of a cross-section of EPA managers to rank risks in four categories: cancer risks, non-cancer health risks, ecological effects, and welfare effects (visibility impairment, materials damage, etc.). The report found that the risk rankings varied substantially by category—no hazard was found to rank high in all four categories, or low in all four categories. So any ranking will be highly dependent on the type of risk being considered. Comparing risks across categories is particularly difficult.

The results of *Unfinished Business* included this identification of priority risks:

Problems that ranks relatively high in three of four risks types, or at least medium in all four include: criteria air pollutants; stratospheric ozone depletion; pesticide residues on food; and other pesticide risks (runoff and air depositions of pesticides).

EPA has committed substantial effort in addressing risks posed by these hazards in the years since *Unfinished Business* was issued.

Question 18. EPA proposed budget did not identify any efficiencies in its operating programs that would effectively do more with less. In fact an 11 percent increase is proposed. Why is the EPA not including in its performance goals improvements in efficiencies and effectiveness? What message is EPA sending to its staff by not highlighting in its performance goals the need to improve efficiencies and effectiveness?

Response. Improving the efficiency and effectiveness of EPA's programs is an integral component of the Agency's overarching goal of increasing protection of public health and the environment. We do not view efficiency and effectiveness as separate, stand-alone goals, however. Rather, EPA has integrated these concepts into our broader strategies aimed at addressing the most serious environmental problems. Much of this work has been accomplished through increasing reliance on innovative approaches to help industry improve its environmental performance. Innovative ideas are helping EPA to think and operate more efficiently and effectively, and they are leading to real environmental improvements accompanied in many cases by reductions in costs to the regulated community. EPA's objective is to incorporate innovative approaches in environmental management throughout our many diverse programs, so that the Agency and its external partners achieve greater and more cost-effective public health and environmental protection.

Specific examples of Agency activities where our efforts to operate more efficiently and effectively have been integrated into our core programs include:

- Providing timely and accessible compliance assistance by becoming a more effective "wholesaler" of compliance information; providing tools, assistance, and resources needed to comply with regulatory requirements as new rules take effect; and using compliance assistance in strategic combination with enforcement, monitoring, and incentives to achieve environmental results.

- Creating flexible and streamlined permitting by working with the States to make permit systems more effective at meeting environmental goals without creating unnecessary social and economic burdens; and moving permitting toward measuring performance while providing regulated parties more flexibility in how standards are met.

- Reducing or eliminating unnecessary regulatory paperwork and red tape. Over the past few years, the Agency has been successful in creating a greater awareness among EPA managers and staff about the need to streamline regulatory procedures. As a result, since 1995, the Agency has cut the size of the environmental section of the *Code of Federal Regulations* by 1,500 pages. Along the way, we have made a conscious effort to achieve our environmental goals in more efficient and effective ways. For example, in our pesticides program, products that pose very low risk due to their inherent low toxicity now have been exempt from EPA review. New options allow companies to proceed with certain registration steps, such as making minor labeling changes, as long as they notify EPA first. Internal management improve-

ments at the Agency have reduced the average time that companies spend waiting for a decision on acute toxicity testing from 24 to 4 months.

- Increasing the numbers of innovative facility- and sector-based strategies to achieve improved environmental protection and make successful approaches more broadly available. EPA approaches this concept through Project XL Excellence and Leadership) and the Agency's sector-based programs growing out of the Common Sense Initiative (CSI). Overall, EPA has found that XL projects produce greater reductions in environmental releases than would have occurred under conventional regulatory approaches. At the same time, XL project participants have reduced environmental management costs and improved their competitiveness as a result of expedited or consolidated permitting, reduced recordkeeping and reporting requirements, and greater operational flexibility afforded by use of innovative approaches such as facility-wide emission caps. The Agency has undertaken a process to evaluate the outcomes of its XL and sector-based programs, in order to more fully integrate the most efficient and effective approaches into our core programs.

- Committing to a number of actions to help accelerate environmental progress. These actions include promoting the voluntary use of Environmental Management Systems (EMSs) that help organizations to better incorporate environmental considerations into business operations. In addition, the Agency is developing a new "performance track" that will distinguish between different levels of environmental performance. The goal is to reward and recognize top environmental performers and provide meaningful incentives for others to improve. EPA sees these programs as a major step toward creating a more performance-based system for driving continuous environmental improvement. Despite the voluntary nature of these programs, we believe they have the potential to result in significant improvements in the efficiency and effectiveness with which environmental protection is achieved, augmenting the traditional regulatory approach.

Question 19. What is the EPA doing differently in order to improve effectiveness, be less prescriptive, and become more outcome oriented?

Response. As discussed in greater detail in the response to question No. 4, the Agency has undertaken many actions to improve the effectiveness of its programs and to focus its activity on the achievement of public health and environmental outcomes. Much of this work has been accomplished through increased reliance on innovative approaches to help industry improve its environmental performance. These innovative approaches typically are characterized by an increase in the flexibility provided to the regulated community, with a corresponding decrease in EPA's reliance on traditional, more prescriptive methods.

Specific examples of Agency activities where our efforts to improve effectiveness, be less prescriptive, and operate in a more outcome-oriented manner include:

- Providing timely and accessible compliance assistance, in strategic combination with enforcement, monitoring, and incentives to achieve environmental results.
- Moving toward less prescriptive and more flexible permitting aimed at achieving environmental results; providing regulated parties more flexibility in how standards are met, with primary emphasis on results to be achieved.
- Reducing or eliminating unnecessary regulatory paperwork and red tape, without sacrificing protection of public health or the environment.
- Increasing the numbers of innovative facility- and sector-based strategies (through Project XL and programs growing out of the Agency's Common Sense Initiative) to achieve improved environmental protection. As a result of the Agency being less prescriptive, these efforts have allowed the regulated community to achieve superior environmental outcomes, using more cost-effective and efficient methods than would be allowed under conventional regulatory approaches.

- Actions including promoting the use of Environmental Management Systems (EMSs) that help businesses to better incorporate environmental considerations into their operations. EPA sees these voluntary programs as a major step toward creating a more performance-based system for driving continuous environmental improvement focused on outcomes, augmenting the more traditional regulatory approach.

Children Health Testing Program

Question 20. What criteria is presently being considered for selecting chemicals to be included in EPA's Children's Health Testing Program?

Response. EPA is currently working with stakeholders on the chemical selection criteria to be used by this program. In all likelihood, chemicals selected for testing under this program will be based on presence in tissues of children, foods children regularly eat and drink, air children breathe, including residential or school air and products children use. EPA also will rely on readily available data from existing sources, including:

- National Health and Nutrition Examination Survey III (NHANES);
- National Human Adipose Tissue Survey (NHATS);
- Total Exposure Assessment Methodology (TEAM);
- FDA data base of Everything Added to Food in the United States (EAFUS);
- National Contaminant Occurrence Data base (includes unregulated drinking water contaminants);
- National Human Exposure Assessment Survey (NHEXAS); and
- EPA Office of Research and Development studies and other published indoor air data.

At this time, EPA estimates that about 50 chemicals will be selected for testing.

Question 21. What are the estimated costs for testing and exposure data collection for chemicals to be included in the Children's Health Testing Program?

Response. If a chemical were to have all 10 tests in the proposed battery conducted, the estimated cost of testing would be approximately \$3 million per chemical. Because of the criteria used to select chemicals for this Program, it is likely that most of the chemicals selected will have many of the 10 tests in the battery already conducted. EPA expects the average chemical currently under consideration in this Program would actually need only five tests done, at an average cost ranging from \$1.5 to \$2.0 million per chemical.

Safe Drinking Water Act

Question 22. In the fiscal year 2001 budget request, \$48.9 million will be directed toward Safe Drinking Water Research. Considering the Safe Drinking Water Act requires the issuance of new standards for a substantial number of contaminants within the next year, what is your justification for the proposed level of research funding? Is this adequate to ensure that regulations are based on sound science while considering health risks, risk reduction and implementation costs? How will the research dollars be allocated within the Safe Drinking Water account?

Response. EPA funding for drinking water research has grown from \$20.8 million in fiscal year 1995 to \$48.9 million in fiscal year 2001. This has enabled the Agency to improve the science and provide new data and technologies in support of all priority Safe Drinking Water Act rulemakings and risk management decisions required to date. We believe that the level of funding in the President's Request for fiscal year 2001 will allow us to continue to meet the requirements of the SDWA in a timely and scientifically sound manner.

In the near-term, the Agency is required to make regulatory determinations on a subset of the chemicals and microbial pathogens on the Contaminant Candidate List (CCL). The contaminants that will be selected for this first round of regulatory determinations are not expected to have significant research requirements. The fiscal year 2001 President's budget includes \$13.3 million in support of CCL research, which represents a near doubling of resources over fiscal year 2000 when congressional add-one are excluded. This funding level will help to ensure that future decisions on unregulated contaminants will be based on sound science while considering health risks and cost-effective risk reduction strategies. EPA's drinking water research budget in fiscal year 2001 also includes funding to address scientific issues for special topics (e.g., sensitive subpopulations) as well as for rules that have already been or will soon be promulgated (e.g., microbes/disinfection by-products and arsenic).

Attached is an allocation of research dollars according to the major SDWA provisions.

Drinking Water Research Program Summary (SDWA by statute)

Pending 2000 Enacted*		2001 President's Budget	
Total \$ (millions)	FTE	Total \$ (millions)	FTE
\$47.4	221.0	\$48.9	220.1

*fiscal year 2000 includes \$6.3 million congressional add-on

The Agency requests a total of \$48.9 million and 220.1 total work years in the 2001 President's budget for the Drinking Water Research Program. (The request includes the operational support staff and associated operating expenses necessary to implement the research program.)

The Safe Drinking Water Act (SDWA) amendments require that the U.S. Environmental Protection Agency (EPA) set standards and establish processes to ensure that drinking water from public water systems is safe to drink. The Office of Research and Development (ORD) research efforts contribute to the Agency's scientific

basis for regulations implementing SDWA. The research also seeks to increase our understanding of the health effects, exposure, assessment, and risk management issues associated with contaminants in drinking water from a public health basis. EPA scientists also provide technical assistance to EPA program and regional offices, States, municipalities, and private suppliers of drinking water to assist in prevention or removal of contaminants in drinking water. Implementation of the research requirements in Sec. 1458(a-d) and Sec. 109 of the SDWAA required an expanded program in several areas, with a particular emphasis on research on sensitive subpopulations, adverse reproductive effects of drinking water contaminants (toxicology and epidemiology studies), research and assessment of selected disinfection by-products (DBPs) (single chemical and complex mixtures) and arsenic, and waterborne disease occurrence studies, as well as treatment and distribution system development.

Allocation of Drinking Water Research resources by SDWA Statute

	2000 Pending Enacted		2001 President's Budget	
	Total \$ (millions)	FTE	Total \$ (million)	FTE
Section 103, 1412(b)(3)	\$1.1	5.3	\$1.4	4.9
Section 109, 1412(b)(12)	\$3.4	16.3	\$2.3	15.3
Section 137, 1458(a)	\$2.3	7.8	\$2.6	7.7
Section 137, 1458(b)	\$4.8	18.5	\$3.8	16.5
Section 137, 1458(c)	\$15.9	67.6	\$17.7	65.5
Section 137, 1458(d)	\$6.0	26.6	\$6.7	27.0
Section 201	\$13.9	78.9	\$14.4	83.2

Question 23. In last year's EPA fiscal year 2000 budget hearing record, EPA referred to an intensive, comprehensive evaluation of research that was underway to assess the support needed for a wide range of regulatory activities facing the Agency over the next 5 years (e.g., the Contaminant Candidate List, Stage 2 Disinfection Byproduct Rule, and reevaluation of existing national primary drinking water standards). Please describe the results of this evaluation in detail, taking into account the regulations listed above and other regulations to be promulgated in the coming years.

Response. The EPA is still in the process of conducting the comprehensive evaluation of drinking water research needs and resource requirements over the next 5 years, and is still on track to complete this evaluation in fiscal year 2001. We have, however, conducted a thorough assessment of research needs and resource requirements in the context of EPA's annual budget cycle and ORD's research planning process. This assessment has been guided by a consideration of: 1) the progress made toward addressing critical scientific issues described in the Agency's research plans for Microbial Pathogens/Disinfection By-Products and for Arsenic; and 2) the research priorities described in the draft Contaminant Candidate List Research Strategy. In the process we have considered input on research needs and resource requirements from outside stakeholders, including the American Water Works Association (AWWA), the AWWA Research Foundation (AWWARF), other governmental agencies, universities and other public and private sector groups.

As noted in response to Question 22 above, we believe that the fiscal year 2001 budget request of \$48.9 million will allow us to meet the requirements of the SDWA in a timely and scientifically sound manner.

Question 24. EPA is to be congratulated for its pioneering work with the National Park Service (NPS) to establish a network of Groundwork organizations in Brownfields communities. We are familiar with the excellent work that is going on in Bridgeport, CT; Lawrence, MA; and Providence, RI; and have a strong interest in the Concord, NH program. Most impressive are the broad-based committees that are directing Groundwork organizations, and their ability to leverage dollars for redevelopment projects in Brownfields communities.

What are your plans to expand the Groundwork network beyond the northeast?

Response. In fiscal year 2000, the Groundwork network will mature in six communities, all in the northeast. One additional community, probably in New Jersey, will begin preparing a business plan. In addition, a central organizing Groundwork USA organization will be established to support all of the sites.

Once a level of sustainability has been achieved in the initial communities in the northeast, we would expect to support the expansion of the network to other Brownfields communities which are well prepared to make the required commit-

ment. Our approach will be to continue to work with the National Park Service's (NPS) Rivers & Trails program to build additional Groundwork Trusts that will facilitate the cleanup and reuse of Brownfields sites and the development of sustainable community-based environmental conservation efforts.

Question 25. What will it take in support from EPA and NPS to assure the sustainability of the Groundwork organizations?

Response. To sustain the existing Groundwork organizations and expand the system by 10 communities would require a commitment of \$0.5 million in fiscal year 2001 and an estimated \$1.5 million in fiscal year 2002.

EPA funding is transferred to NPS through an Interagency Agreement between the EPA and the NPS. These funds are currently awarded to eligible public entities to be used for environmental response planning and implementation activities at Brownfields sites, including the share of overhead costs attributable to such activities. Examples of these activities include, outreach efforts, community participation and the hiring of staff for building local Groundwork Trust organizations.

Currently, in fiscal year 2000, NPS is funded at \$150,000 and the Groundwork network will mature in six communities, all in the northeast. One additional community, probably in New Jersey, will begin preparing a business plan. In addition, a central organizing Groundwork USA organization will be established to support all of the sites.

Once we are successful in achieving a level of sustainability in the initial communities in the northeast, we would expect to expand the network to other Brownfields communities which are well prepared to make the required commitment. Our approach will be to continue to work with the NPS Rivers & Trails program to build broad-based steering committees with strong support from the local government and the private sector to undertake the necessary planning and assessment critical to establishing new Groundwork organizations.

Resource Conservation and Recovery Act (RCRA)

Leaking Underground Storage Tank Program

Question 26. EPA's fiscal year 2001 Annual Plan Summary states that EPA intends to achieve 93 percent compliance with the requirements of RCRA Subtitle I. However, the deadline for compliance with these requirements was December 22, 1998. Although the States are the primary enforcers of the UST program, it seems appropriate for EPA to increase enforcement efforts when owners have been on notice of the requirements since 1988 and the deadline has passed without full compliance. How have the Agency's enforcement resources been targeted in the past?

Response. Since States are the primary, and most effective, enforcers of the UST program, EPA's major efforts are aimed at augmenting and assisting State programs where possible. It is in this area that the Agency's resources can be most effectively utilized and leveraged.

The Agency's assumption that 93 percent of the existing underground storage tanks will be in compliance by the end of fiscal year 2001 is based, in part, on the fact that many States have laws and enforcement tools that go well beyond those available to EPA. This includes the "red tag" laws in 20 States which allow them to prevent delivery of fuel to noncompliant facilities. In addition, distributors in many other States have decided not to deliver fuel to non-complying facilities for liability reasons. These State enforcement tools are the best way to force increased compliance.

EPA's Office of Enforcement and Compliance assurance has designated compliance with the 1998 requirements as an "important activity" in its fiscal year 2000/2001 Memorandum of Agreement (MOA) Guidance to all EPA regions, noting that "EPA efforts should be focused on States where compliance rates are lowest or States' compliance monitoring and enforcement programs are a concern." Thus, EPA is increasingly targeting Federal efforts in this direction. Inspection and enforcement full time equivalents (FTEs) for the UST program were increased to over 30 FTEs by the time of the December 22, 1998 deadline, and will remain approximately at that level for fiscal year 2001. The Federal Facility Enforcement Office recently conducted an inspection initiative targeting Federal facilities. In addition, EPA recently changed its field citation policy for 1998 upgrade violations by both increasing the penalty amount from \$900 to \$1,300 and narrowing the categories of owners/operators eligible for field citations to private operators of two or fewer small facilities as well as all State, local, and tribal facilities. The remainder of non-compliant facilities will be subject to substantially higher administrative penalties.

Question 26a. How many underground storage tanks were addressed (cleaned up, replaced or closed) in fiscal year 1999?

Response. As of September 30, 1999, EPA estimated that 60 percent of 760,000 (i.e., about 456,000) active tanks were in compliance with the leak detection requirements. As of December 1999, approximately 85 percent of 760,000 (i.e., 646,000) active tanks were in compliance with the 1998 deadline for upgrading, replacing, or closing tanks. In fiscal year 1999, approximately 25,000 tanks were cleaned up.

Question 26b. Are there impediments to achieving 100 percent compliance with the enforcement of this deadline?

Response. There are major impediments to achieving 100 percent compliance with the enforcement of this deadline. The size of the UST universe is enormous (760,000). Bringing all non-compliant facilities into compliance represents a huge workload for the States and EPA, and is an on-going activity. This difficulty is increased by the fact that the owners of USTs still out of compliance are generally either recalcitrant or are financially unable to comply. This group will not be easy to bring into compliance. Furthermore, every year the States and EPA discover unregistered tanks that need to be brought into compliance. In addition, there are operation and maintenance requirements that need to be met over time. It will be a continuing challenge to ensure that UST operators and owners properly operate and maintain their USTs to remain in compliance. Nonetheless, EPA is committed to working with the States to bring the compliance rate to as close to 100 percent as is possible.

Question 26c. EPA's fiscal year 2001 budget request indicates that the Agency intends to assist in the cleanup of 21,000 leaking underground storage tank cleanups for a cumulative total of 271,000 cleanups since 1987. How many historical cleanups still remain?

Response. There is a backlog of approximately 170,000 cleanups not completed. There have been approximately 400,000 releases confirmed and approximately 230,000 cleanups have been completed. EPA, with very few exceptions, does not perform the cleanups of the leaking underground storage tanks. States and Territories use the Leaking Underground Storage Tanks (LUST) Trust funds to administer their corrective action programs, oversee cleanups by responsible parties, undertake necessary enforcement actions, and pay for cleanups in cases where a responsible party cannot be found or is unwilling or unable to pay for a cleanup. Most States have cleanup funds that cover the majority of owners and operators' cleanup costs. These State funds are separate from the LUST Trust Fund. Collectively, the States have and spend about \$1 billion annually to pay for cleanup of releases from underground storage tanks.

Question 26d. How many new cleanups come up each year?

Response. Since 1989, States have overseen the completion of an average of 21,000 cleanups annually.

Question 26e. How is EPA going to address the preliminary assessment of California's UST data base by the University of California at Davis which indicates that the annual leak rate for UST systems in compliance with upgrading requirements is still almost 1 percent per year?

Response. EPA, working with the States, has undertaken activities to evaluate UST system performance, determine ways to improve UST systems, and improve owners'/operators' operation and maintenance of UST systems. For example, EPA is working with States to identify the cause of a release from a 1998 upgrading compliant UST system that is currently leaking. OUST is also working to increase the education of owners and operators of UST systems. Along this undertaking, OUST is finalizing an "Operations and Maintenance Manual" planned for distribution to State inspectors and individual tank owners and/or operators. The manual identifies maintenance procedures that must be accomplished by Federal regulations. In addition, the manual is filled with numerous suggestions to optimize the performance and benefits that are derived from leak detection, spill and overfill, and corrosion protection equipment that are part of a total UST system. Although no system is foolproof against failure, increasing awareness of proper maintenance is essential in averting a return to the magnitude of leaks that are presently being cleaned up from previously substandard underground storage tank systems.

Addressing Risk in the RCRA Program

Question 27. —EPA's Summary of the fiscal year 2001 budget states that "the Agency will continue work to develop concentration-based exemption levels for constituents occurring in hazardous waste". Does EPA intend to revisit efforts to propose a "bright line" approach for contaminated media (a point at which waste is no longer considered to be hazardous) as was rejected in the final HWIR-Media rule?

Response. EPA does not intend to propose a "bright line" approach for contaminated media.

Question 28. What progress has the Agency made "to better address risk in the RCRA Program?" Specifically, at what stage of implementation are the following programs: Agency's Air Toxics Multi-Media Initiative, Risks from Surface Impoundments, Toxic Constituents Leaching Procedure, Hazardous Waste Minimization and Combustion Strategy, Hazardous Waste Listings Determinations and Industrial Non-Hazardous Waste Guidance?

Response. Agency's Air Toxics Multi-Media Initiative: In 1996, EPA's Hazardous Waste Characteristic Scoping Study identified direct inhalation risks from emissions of waste management units as one potential gap in the RCRA hazardous waste characteristics. The Air Characteristic Study, completed in May, 1998, and revised in August, 1999, addressed this issue by examining the potential direct inhalation risks due to emissions from certain waste management units. The study was designed to highlight areas that might require more detailed review. Out of all waste management units analyzed, risk assessment showed that wastewater treatment tanks proved to be of most concern for risks from the inhalation pathway. Important elements of the RCRA program exist that would reduce the air risk from certain tank units and land-based units. However, if EPA chose to address these risks under RCRA, wastewater treatment units would remain exempt unless current regulations on these units are modified. EPA is starting to look at whether some air release controls could be imposed on those exempt tanks under RCRA in a reasonable way and whether we can get better information as to how often potentially risky concentrations are present in wastewaters managed in such exempt tanks.

Risks from Surface Impoundments: Under the 1996 Land Disposal Program Flexibility Act, EPA was charged with conducting a study of the risks associated with those surface impoundments that had received wastes that had been previously but were no longer hazardous waste. EPA is progressing well with the surface impoundment study. After several years of public comment, external peer review, methodology design and clearance under the Paperwork Reduction Act, a screener survey was issued last year. The results of that initial survey were used to design and focus a subsequent more in-depth survey. The long survey was sent out late last year and most respondents have returned their surveys. EPA is actively organizing and automating the responses. In addition, EPA after several years of peer review finalized its risk assessment methodology earlier this year. The final methodology was evaluated by an external group of peers reviewers and we are now finalizing our approach in response. Field sampling of selected surface impoundments will be conducted this spring and summer. The risk analysis will be conducted this summer and fall. The Agency is on track to develop a final risk report before the deadline of March 2001.

Toxic Constituents Leaching Procedure: The Toxicity Characteristic Leaching Procedure (TCLP) is used in a wide array of applications: for making hazardous waste determinations (toxicity characteristic and listing) decisions, demonstrating compliance with land disposal restrictions (LDR), delisting of hazardous waste, and evaluating the hazardous nature of contaminated media. In the Phase IV LDR/mineral processing final rulemaking, the Agency committed to conducting and concluding a 3-5 year review of the TCLP test and its application to mineral processing and other waste types. A public meeting on the TCLP and leach testing was held in July 1999 as part of the leach testing review process. EPA is considering what further steps should now be taken in this area.

Hazardous Waste Minimization and Combustion Strategy: EPA has set a goal under GPRA of 50 percent reduction of persistent, bioaccumulative and toxic (PBT) chemicals. This is followup from the Waste Minimization National Plan, part of the Strategy. EPA proposed a draft PBT list in 1998, and is presently considering comments, and plans to finalize the list later this year.

EPA issued Phase I of its Maximum Achievable Control Technology (MACT) controls in 1999, part of the Strategy. We plan to pursue development of the Phase II MACT standards in late Fall and plan to propose the Phase II controls in 2002.

Hazardous Waste Listing Determinations: Under a consent decree with the Environmental Defense Fund (EDF), EPA must complete hazardous waste listing determinations for wastes from numerous industries. In June 1999, EPA renegotiated the deadlines for the remaining four industry listing determinations. The court has accepted the negotiated revisions. The revised deadlines, however, are extremely tight and the Agency is taking extraordinary efforts to meet them.

Industrial Non-Hazardous Waste Guidance: EPA is currently summarizing the comments received on the Draft Industrial D guide. The comment period closed on December 13, 1999, but some comments were not received until mid-January. The Agency has a 2-year plan to finalize the Industrial Waste guidance and as such the Guide is currently scheduled to be finished at the end of 2001 or the beginning of 2002.

Addressing Risk in the RCRA Program

Question 29. EPA's Summary of the fiscal year 2001 budget indicates that the Agency is moving toward a RCRA program that reflects actual levels of risk. How does the Agency intend to regulate based on risk and not fall back to the traditional technology based regulation of hazardous waste?

Response. EPA's Office of Solid (OSW) waste remains committed to considering risk in the RCRA regulatory program. There are a number of developments that offer tangible evidence that we continue to move forward in this arena. First, all of our major regulatory programs are supported by intensive, detailed national scale risk analysis efforts. Recent examples of these include analyses to support hazardous waste listing determinations such as those for petroleum refining, solvents wastes, chlorinated aliphatics, paint wastes, inorganic chemical wastes and dye and pigment wastes. In addition, we are increasing by looking toward the development of risk-based criteria so that only those wastes posing a risk of concern would be captured in our listing description. In addition to our listings program, we continue to rely on risk assessment tools for evaluating, waste derived fertilizers and soil amendments, hazardous waste air emissions and Bevill wastes (fossil fuel combustion wastes, mining and mineral processing wastes, cement kiln dust wastes exempt from RCRA Subtitle C regulation).

We also use risk assessment tools to help implement our existing programs. Local communities often express considerable concern regarding the permitting of hazardous waste combustion units and hazardous waste cleanup sites. We have developed extensive guidance for conducting site specific human health and ecological risk assessments of the stack emissions from hazardous waste combustors. In addition, under the Government Performance and Results Act (GPRA) we have developed risk-based goals for measuring progress in our cleanup programs. For example, one indicator of progress is to what extent has our cleanup program prevented human exposures.

Finally, our commitment to considering risk in the RCRA regulatory program is evidenced by OSW's organizational and resource commitments. Several years ago OSW formed a division to serve as a center of risk assessment excellence and serve the entire office. There are over 20 staff with expertise in environmental chemistry, toxicology,

Corrective Action Program

Question 30. EPA's Summary of the fiscal year 2000 budget states that the goal for fiscal year 2000 was to address 170 high-priority RCRA corrective actionsites. EPA's Summary of the fiscal year 2001 states that the Agency will address 172 high-priority RCRA Corrective Actionsites. The Agency has request an increase of \$3.4 million from the amount enacted in fiscal year 2000, yet it only intends to address two more high-priority sites than last year. Can you explain why there is such a disparity between the increase in funding requested and the disproportionate increase in high priority sites to be addressed?

Response. Additional funding in fiscal year 2001 is not expected to yield increases in the number of facilities addressed annually for 1 to 2 years. The delay is a function of the lead time needed to hire and train additional staff, then move increased numbers of facilities through the cleanup process. The expected increase in annual output is therefore reflected in the RCRA national cleanup goals for control of human exposures which jumps from 172 in 2001 to 257 for each of the years 2002-2005. Without the requested funding increase, it is unlikely that this higher annual number can be sustained that the national cleanup goal can be met. Additionally, the potential for exposure to pollutants or for groundwater contamination could increase at the identified sites. The annual cleanup goal for control of groundwater contamination which remains constant at 172 for the years 2001 through 2005 reflects the relative difficulty in meeting this goal. Without the requested funding increase, the program will similarly fall short in meeting this cleanup goal.

Question 31. Where is the additional \$3.4 million requested to be used in the RCRA Corrective Action Program?

Response. The full increase over fiscal year 2000 enacted for corrective action is \$11.4 million. This includes \$8 million to augment State programs and \$3.4 million to implement the RCRA Corrective Action Reforms announced by Assistant Administrator Fields July, 1999. these reforms include training for regional and State program implementers, and guidance on implementing the flexibility inherent in the RCRA regulations.

Question 32. Since the Agency only focuses on "controlling human exposure" and/or controlling groundwater releases," how many high priority RCRA sites has EPA completed remediation or cleanup, if any?

Response. As the committee notes, the RCRA Corrective Action Program's national cleanup goals through 2005 are controlling human exposure and migration of contaminated groundwater at the roughly 1,700 worst facilities. In addition to the goals we plan to achieve by 2005 for our highest priority facilities, all RCRA permitted facilities are legally required to eventually complete any final cleanup actions necessary at their facilities. To date, 73 facilities have completed cleanup, and there has been substantial progress at other facilities. For example, 1,276 of the facilities are under enforceable permits or orders to conduct cleanup. Measures to stabilize releases have been put in place at 848 facilities, and 216 have completed construction of final remediation measures. Last, human exposures are under control at 487 facilities, and migration of contaminated groundwater is under control at 419 facilities.

Question 33. EPA has reached a settlement in the Corrective Action Management Unit (CAMU) Rule litigation. The settlement agreement includes deadlines by which EPA is to publish a notice of proposed rulemaking on whether the CAMU Rule should be amended by August 2000 and whether the Agency should take final action regarding such proposal by October 2001. Does EPA have adequate resources to meet these deadlines?

Response. EPA has adequate resources to meet the August 2000 and October 2001 deadlines in the CAMU settlement.

Superfund

National Priority List

Question 34. In the Presidential Justification for fiscal year 2001 it is obvious from Chart 4-1, Major Progress in Superfund Cleanups, that there is a ramp down of sites at which construction is to be completed in the Superfund program. Fiscal year 1999 and 2000 had a goal of 85 construction completions. In fiscal year 2001, the Agency will complete construction at 75 sites and it is projected that in fiscal year 2002 70 sites will be construction complete. Will this decrease in construction completions jeopardize the ability of the Agency to meet the GPRA goal of 925 construction completions by 2002?

Response. In the 2001 budget request the GPRA construction complete target is 900 by 2002. This is lower than the target of 925 completions by fiscal year 2002 that was included in the fiscal year 2000 budget request, because Congress appropriated less for the Superfund program in fiscal year 2000 than the fiscal year 2000 budget request.

The current pace of 75 sites in 2001, and 70 sites in 2002, will assure that the Agency meets the revised GPRA goal of 900 construction completions by 2002.

Question 35. Will the proposed change of the definition of construction complete allow the Agency to meet the GPRA goals that it would not otherwise meet without the new definition?

Response. The GPRA goals for completion will be met using the existing construction completion definition. EPA is considering the creation of a parallel measure that will capture legitimate construction work completed at sites "proposed" to the NPL. This new measure will not be used for meeting current GPRA goals.

Question 36. Does the Agency intend to apply the new definition of construction complete retroactively?

Response. The original construction completion definition will be used to measure progress toward the GPRA goal. The parallel construction completion definition will be used to capture the legitimate construction work at completed sites "proposed" to the NPL and will be used as part of a parallel measure with our current GPRA goal.

Question 37. There are fewer sites on the National Priorities List every year. The Agency is removing 85 sites per year and adding about 30 sites, for net reduction of about 55 sites per year. Why is the Superfund budget request increasing instead of decreasing when there is a net reduction of about 55 sites per year?

Response. The budget for fiscal year 2001 maintains the pace to achieve 900 completions by fiscal year 2002. Although there are fewer sites listed than are completed, our workload has remained steady as we continue to work on ongoing sites. The President's request for \$1.45 billion in fiscal year 2001 is a \$50 million increase over the fiscal year 2000 enacted budget of \$1.4 billion.

Brownfields

Question 38. The Brownfields program has been successful in bringing local, State and Federal resources together to achieve environmental and economic improvements around the country. EPA's fiscal year 2001 Annual Plan Summary requests approximately the same amount as in fiscal year 2000 but the number of projects

to be supported has decreased. In fiscal year 2000, you pledged to provide supplemental support for 50 existing assessment pilots and to fund 50 additional assessment demonstration pilots. In fiscal year 2001, the Agency does not plan to start any new assessment demonstration projects and will only support the 50 existing assessment pilots. What is the explanation for decreasing the number of projects supported while maintaining the same level of funding?

Response. By the end of fiscal year 2000, more than 350 Assessment pilots will be awarded. As the earlier awarded pilots complete their assessment activities, an increased need for cleanup dollars, supplemental funding for existing assessment pilots and assessments to support greenspace preservation activities has emerged. Major shifts between the funding levels of assessment and cleanup activities within the Brownfields budget reflect this need:

- \$4 million will be redirected from Brownfields assessment pilots to Brownfields Cleanup Revolving Loan Fund pilots. This redirection reflects a shift in program emphasis as more Brownfields communities move into the cleanup phase.
- \$4 million, which will be derived from assessment pilot funding, will be invested to award 10 new Brownfields Showcase Communities. These communities will serve as models to demonstrate the benefits of interagency cooperative efforts in addressing environmental and economic issues related to Brownfields.
- \$3.4 million will be redirected from Brownfields assessment pilots to Brownfields Technical Support. This redirection reflects development and implementation costs of information systems to collect, track and report key Brownfields program data. It also reflects the increased cost of oversight and technical support for the increased number of Brownfields pilots.

EPA is still evaluating the appropriate balance between awarding new assessment pilots within the existing dollar amount and providing funding to supplement existing assessment pilots.

National Institutes of Environmental Health Sciences

Question 39. The President's fiscal year 2001 budget request for the National Institute of Health Sciences (NIEHS) is \$48.5 million. This is a decrease of \$11.8 million from last year's enacted budget. The NIEHS program has been traditionally underfunded and has taken the brunt of cuts in EPA's budget. Should NIH be the funding mechanism for the NIEHS program, instead of EPA, since your Agency apparently does not consider NIEHS a priority?

Response. EPA is very supportive of the work NIEHS has been doing for a number of years. The request of \$48.5 million for NIEHS represents what the Administration has consistently requested for the last several years. Congress, over the past 3 years, has increased its budget to \$60 million while at the same time reducing Superfund cleanup funding.

The Agency has attempted to balance cleanup dollars versus research needs, and has reflected this with a substantial budget request of almost \$50 million for NIEHS which will allow NIEHS to continue to do very important work in support of the Superfund program.

Pesticides/Toxic Substances

Food Quality Protection Act

Question 40. The Food Quality Protection Act (FQPA) requires the Agency to reevaluate 9,721 food residue tolerances approved before the passage of the Act by 2006. The Agency met its first deadline to reassess 33 percent of these tolerances by August 1999. In fiscal year 2000, the Agency planned to assess 20 percent of 9,721. In fiscal year 2001, the Agency plans to reassess 1,200 tolerances. Assuming that the Agency meets both of these goals, 842 tolerance reassessments will need to be completed in 2002–2006. Is the Agency on an "appropriate" schedule to meet the 2006 tolerance reassessment deadline?

Response. Yes. EPA is planning to complete tolerance reassessment on schedule.

Question 41. How many tolerances have been reassessed to date?

Response. As of March 21, 2000, EPA has reassessed 3,471 tolerances.

Pesticides

Question 42. The Agency has two deadlines to meet regarding safe food. By 2002 reregistration of pesticides currently on the market must be completed to ensure they meet the latest health standards. By 2006, a review of tolerances and exemptions for pesticide residues approved before FQPA are to be reviewed. EPA has been conducting reregistration in conjunction with tolerance reassessments. Can you explain the reasoning behind this seeing as it may jeopardize meeting the deadlines?

Response. EPA is conducting reregistration in conjunction with tolerance reassessment because it saves resources and improves the efficiency of both programs to conduct them together. During reregistration, EPA conducts a complete assessment of a pesticide's risks to human health and the environment, including acute and chronic dietary risk assessments for any food uses. Mitigation measures are developed for risks posing concerns. In reassessing tolerances for a pesticide, the Agency similarly must conduct a complete dietary risk assessment. The goal of both review programs is to determine whether pesticides with food uses meet the safety standard of FQPA, and to mitigate any dietary risks of concern. It makes sense to combine schedules and integrate reviews for reregistration and tolerance reassessment, so that the needs of both programs are met through one effort. EPA has prioritized pesticides for reregistration and tolerance reassessments based on their potential risks, as required under FQPA. There are three groups, with group 1 having the highest potential risk, group 2 lesser risk and group 3 the least. Pesticides under the reregistration program fall into each of the three groups, and this impacts the schedule for completing the reregistration program. At present, EPA is planning to complete tolerance reassessment on schedule, in 2006, and to complete reregistration prior to the deadline for completing tolerance reassessment.

Question 43. What is the total number of pesticides needing reregistration by 2002?

Response. A universe of 612 reregistration cases (groups of related pesticide active ingredients) will be complete prior to the deadline for completing tolerance reassessments in 2006.

Question 44. How many have been completed to date?

Response. To date, EPA has completed 198 REDs (15 of which were early voluntary cancellations), and 231 more cases have been voluntarily canceled by their registrants. Thus, 429 cases have completed the reregistration eligibility decision-making process, leaving 183 cases to complete.

Question 45. Will you meet the deadline?

Response. EPA is combining schedules and integrating reviews for reregistration and tolerance reassessment, so that the needs of both programs are met through one effort. At present, EPA is planning to complete tolerance reassessment on schedule, in 2006, and to complete reregistration prior to the deadline for completing tolerance reassessment.

Toxic Substances Control Act

Question 46. There seems to be a lot of basic hazard testing being done at EPA. Although it is good to know what risks exist in the environment, some of these efforts appear to overlap. Reducing duplication in testing will provide us with hazard data while preventing the loss of animal lives used in the process of testing. Some of your testing projects include: High Production Volume Chemical Testing Challenge; Children's Health Initiative; Endocrine Disruptors Screening Program; National Program Chemicals. Can you distinguish between the data each of these programs provides?

Response. EPA does not anticipate having any problem in distinguishing between the data each of these programs will provide. Each of these programs has been structured to meet a different need, and there has been substantial coordination both within the Agency and with outside groups, including industry, to guarantee that duplicative testing will be avoided. Under section 4 of TSCA, EPA must not require duplicative testing and therefore applies extreme care and diligence in assuring that none of the testing it proposes either has already been conducted, is being conducted, or is in the process of being proposed by another program or entity.

The HPV Challenge Program will provide only screening-level toxicity and fate data on high production volume chemicals. Some of the HPV Challenge Program chemicals may also be included in the Children's Health Program and in the Endocrine Disruptors Screening Program, but the data being sought in each program are different. The Children's Health Program builds upon the basic screening-level data to pursue additional information directly relevant to children's exposures where the data included in the Challenge Program may not be sufficient; it would not duplicate the Challenge Program data, nor require a company or consortium to perform two different levels of tests on the same chemical to achieve a more refined hazard characterization. The Endocrine Disruptors screening program has only one point of overlap with the HPV Challenge and Children's Health programs—a two-generation reproductive toxicity study—and the programs are being closely coordinated to ensure that no duplication of testing will be necessary or requested. The National Program Chemicals work does not involve testing of chemicals.

Question 47. Are many of the same chemicals tested in each of these programs?

Response. As noted in the response to Question 46, there will be some overlap among the programs in terms of which chemicals are being tested. However, the specific testing requirements and the data generated from the testing will differ from program to program. There will be substantial inter-program coordination to ensure against duplication of effort.

Question 48. Does the Agency intend to consolidate these efforts in such a way as to reduce the loss of animal lives? Is the Agency currently working on the validation of non-animal testing methods?

Response. The Agency is committed to reducing the number of animals used for testing, to reducing pain and suffering of test animals, and to replacing animals in testing with validated in vitro (non-animal) test systems. These are fundamental principles to which EPA has been committed for many years. In addition to pursuing the validation of in vitro test methods (which is addressed more fully in response to questions 4b, 4c, and 4d, below), EPA is committed to incorporating these principles into the design of its various hazard testing programs by, for example, encouraging participating companies to first make available all existing data pertaining to the chemicals and endpoints being addressed. In this way, available existing data will be evaluated for their adequacy in assessing the potential health risk of a chemical before additional testing is conducted. EPA also observes these principles by ensuring that duplicative testing is avoided, and by strongly encouraging the use of chemical categories and the application of chemical structure-activity relationships, to reduce the absolute number of chemical substances that may need to be tested.

HPV Chemical Testing Program

Question 49. EPA's fiscal year 2001 summary budget states that "in 2001, EPA will initiate safety reviews on chemicals already in commerce by obtaining data on an additional 10 percent of the 2,800 HPV chemicals on the master test list." How many HPV Chemicals has toxicity data been gathered?

Response. Under the HPV Challenge Program, 437 companies, either individually or as part of more than 150 consortia, have committed to sponsoring over 2,070 chemicals by 2005. In their commitments to participate in the Program, companies and consortia specify a "start year" for each chemical, during which work on that chemical will begin. Presently, companies have committed to start 413 HPV chemicals during calendar year 2000 and 1,150 chemicals during calendar year 2001. These calendar year commitments are not perfectly in step with the government fiscal year.

To "start" a chemical, the sponsoring company or consortium begins by collecting and assessing the existing data on the chemical, which it furnishes to the Agency and to the public in the form of a robust summary. The company or consortium then also provides a test plan or work plan on the chemical, indicating where existing data are deemed adequate and where new testing may be required. We have not yet received robust summaries or test plans for the 2000 and 2001 chemicals, although we expect those submissions to begin shortly.

Question 50. The MEIC human cell line replacement is a promising method for replacing the LD/50 test. Will the MEIC receive a portion or all of the Agency's monetary commitment in the HPV agreement for non-animal test methods for fiscal year 2001 ?

Response. EPA has previously responded to this question in Acting Assistant Administrator Susan H. Wayland's letter to you dated March 15, 2000. Ms. Wayland stated that the funding committed to by EPA in its letter of October 14, 1999 to participants in the HPV Challenge Program, is intended to promote the development and validation of non-animal alternative test methods and protocols, and that the Multicenter Evaluation of In Vitro Cytotoxicity (MEIC) test battery is one of several alternative in vitro methods that will be given priority attention. The MEIC is already receiving consideration: the Interagency Coordinating Committee on Validation of Alternative Methods (ICCVAM) initiated a review of the MEIC test battery on August 24, 1999. EPA co-chairs the ICCVAM along with the National Institute for Environmental Health Sciences (NIEHS). ICCVAM recommended that an Expert Panel Workshop be convened to evaluate the current validation status of the proposed MEIC test battery and other in vitro tests for predicting acute toxicity. This workshop is now scheduled for October 17-19, 2000, and will be announced in a notice published in the Federal Register.

Question 51. If so, how soon do you anticipate sponsoring the validation of this method?

Response. Validation consists of ensuring that a new method is both reliable and relevant for the proposed use. At its meeting in August 1999, ICCVAM initiated a

process to investigate the potential for validation of various acute in vitro methods, including the MEIC test battery. The workshop that will be convened on October 17–19, 2000 is to identify and prioritize the research, development, and validation efforts necessary to demonstrate the extent that in vitro methods could be used to reduce animal use for predicting acute oral toxicity of chemicals, and what would be necessary to further reduce or replace animal use. For example, some of these methodologies may hold some promise but still require additional basic research prior to validation; the October workshop may help to focus such research.

EPA is committed to incorporating into the HPV Challenge Program, as appropriate, any alternative methods that have been scientifically validated and peer reviewed via recognized authorities, such as ICCVAM, and that have achieved regulatory acceptance. The funding which EPA is making available will support these activities.

Question 52. If not, how does the EPA intend to spend the \$250,000?

Response. The EPA budget for alternative animal models will be used to fund an agreement with NIEHS to act on the recommendations of the October Expert Panel Workshop regarding validation of, and further research on, in vitro toxicological tests.

Endocrine Disruptor Screening Program

Question 53. The Agency received \$4 million in congressional appropriations for fiscal year 1999 to, in part, develop and validate a High Throughput Screen Program (HTPS) for the Endocrine Disruptor Screening Program. However, the initial contract for \$70,000 for the HTPS did not produce the desired results, causing the EPA to put the project on hold until later in 2000. Will the Agency invest adequate resources for ensuring that the HTPS (which will expedite priority for chemical testing, save animals and save money) becomes a valid method prior to beginning animal testing in the Endocrine Disruptor program?

Response. The Agency initiated and completed a High Throughput Pre-Screening (HTPS) demonstration project that was judged by an external scientific peer review panel in May 1999 to be insufficiently developed for regulatory use. HTPS was intended to pre-screen chemicals using computer automated robotic systems to measure the potential of chemicals to bind to the estrogen receptor. EPA has committed to expending additional resources to evaluate other HTPS technologies as recommended by the external scientific peer review.

The Agency is investigating the use of computer simulation techniques (Quantitative Structure Activity Relationship Models or QSARs,) alternative HTPS technologies, and conventional in vitro bench methods for use in priority setting and initial screening of chemicals. EPA is conducting research internally and collaborating with the Food and Drug Administration and the National Institute of Environmental Health Sciences to accomplish the development of these simulation and in vitro methods for use in its Endocrine Disruptor Screening Program. One to 2 years will be required to fully develop these approaches.

Neither HTPS nor the existing in vitro methods replace animal tests. These methods were to be used with animal screens and tests, until they could be appropriately validated as sound replacements for conventional animal methods testing. This approach was recommended by the Federal Advisory Committee that was formed to provide advice on the design of EPA's endocrine disrupter screening program (the Endocrine Disruptor Screening and Testing Advisory Committee, or EDSTAC). It was also endorsed by the National Research Council, as well as the Agency's scientific peer review panel. HTPS was to be used to facilitate the sorting process for the large number of chemicals for which we have little or no data on endocrine effects. It was to be used only as a screening and prioritization tool.

Toxic Release Inventory

Question 54. EPA's fiscal 2001 summary budget states that the quantity of Toxic Release Inventory (TRI) pollutants released, disposed of, treated, or combusted for energy recovery will be reduced by 200 million pounds, or 2 percent from 2000 reporting levels. How does EPA plan to limit the amount of pollutants released, disposed of, treated, or combusted for energy recovery?

Response. EPA has several authorities and programs that can encourage waste prevention and reduction, including:

State grants under the Pollution Prevention Act (PPA) fund State programs, which provide technical assistance to help TRI releasers implement source reduction measures.

EPA-sponsored voluntary programs, such as those under Partners for the Environment, which helps businesses reduce waste and TRI releases.

Design for the Environment which helps businesses incorporate environmental considerations into the design of products, processes and technical management systems.

The Green Chemistry program which promotes the use of chemical products and processes that reduce or eliminate the use and generation of hazardous substances, through methods that include benign feedstocks and safer substitutes.

The EPA-sponsored Michigan Source Reduction Initiative which demonstrates the value of collaborative approaches for finding pollution prevention opportunities at industrial facilities. EPA is supporting the development of additional pilots for this approach.

These programs can help to encourage source reduction for TRI chemicals, although they are not focused exclusively on TRI releasers. The process of TRI reporting itself can lead to waste reduction without any further effort on the part of the Agency, as business adopt source reduction practices in response to public interest and the opportunities to save money by reducing waste. The Pollution Prevention Act provides for reporting of source reduction measures undertaken at a facility subject to TRI reporting.

EPA is exploring ways to better focus its authorities and ongoing programs on reducing TRI releases. The first step is to identify a subset of TRI chemicals and industry sectors on the basis of risk and the feasibility of reductions that would be the target for more intensive efforts.

Technical assistance would emphasize approaches that can reduce waste at the source, since the goal relates to waste generation, and not simply release reduction.

Question 55. Is the Toxics Release Inventory strictly a reporting statute to inventory releases as opposed to a regulatory mechanism?

Response. The Toxics Release Inventory was created by the Emergency Planning Community Right to Know Act of 1986 (EPCRA) Section 313. It requires that certain industries report annually to EPA and their State government on their releases of toxic chemicals into the environment. In other words, it is a regulatory requirement to report.

Nuclear Waste

Setting standards

Question 56. The EPA fiscal year 2001 summary budget focuses on the benefits of partnerships and working with academia, however, you have refused suggestions to work jointly with the Nuclear Regulatory Commission and National Academy of Sciences to set joint standards for the Yucca Mountain repository. If you encourage cooperation, wouldn't the setting of Yucca Mountain standards be a good place for collaboration?

Response. In developing the standards for Yucca Mountain, the Environmental Protection Agency (EPA) held numerous meetings with the Nuclear Regulatory Commission (NRC) and the National Academy of Sciences. In developing the proposal, EPA incorporated most of NAS' recommendations and accommodated several of NRC's suggestions for improving the rule.

EPA has gone to great length to work with a variety of interested stakeholders including other Federal agencies, the scientific community and members of the public. We realize that this project involves a unique facility with many complex issues. EPA has made every effort to consider all of the issues which have been brought to our attention. This includes meetings with interested parties and discussions within the Administration. A significant amount of this time was spent addressing scientific issues in coordination with NAS, the Administration's Office of Science Technology and Policy, the Department of Energy (DOE) and NRC. EPA has worked diligently to resolve the many complex issues. We took the necessary time to ensure that we prepared standards that were technically sound, legally defensible, that could be reasonably be implemented, and were protective of public health and the environment.

The EPA's proposed Yucca Mountain standards are entirely consistent with other standards the Agency has established and, in almost every respect, are consistent with the recommendations of the NAS. For Yucca Mountain, NAS suggested a risk level equivalent to an annual dose in the range of 2 to 20 millirem/yr. The annual risk associated with EPA's proposed 15 millirem standard and 4 millirem standard for drinking water fall within this range. The 25 millirem/yr dose limit proposed by the NRC would allow greater risk than that recommended by NAS. NAS has supported EPA's proposed 15 millirem standard. In its November 26, 1999 comments on the 15 millirem standard, NAS stated that "the magnitude of the proposed numeric value of the individual-protection standard is consistent with the recommendations in the [NAS] report."

We will continue to make every effort to consider all of the issues which have been brought to our attention by the NRC, NAS, and other interested parties. Both NRC and NAS have submitted written comments on EPA's proposed standards. EPA will work closely with NRC and NAS to address their comments in EPA's final standards.

Question 57. If it is decided that EPA, as opposed to NRC, is adequately prepared to set standards for the Yucca Mountain repository where the nation's highest level nuclear waste will be stored, would it be reasonable for EPA to also set standards for low activity waste, NORM, FARM and FUSRAP waste?

Response. Yes. EPA currently has broad authority under the Atomic Energy Act of 1954 to set generally applicable standards for waste disposal of radioactive materials. This arrangement of having EPA set the standards and NRC implement them is the system of checks and balances that was established when EPA was formed in 1970 and how nuclear facilities have been regulated for the past 30 years.

EPA has the expertise to set appropriate health and safety standards for the disposal of radioactive waste and has done so for decades. EPA also has expertise in implementing such standards successfully. In fact, EPA set the safety standards for, and certified, the only operating geologic repository for permanent disposal of radioactive waste in the United States—the Waste Isolation Pilot Plant in New Mexico.

In addition, EPA has a wealth of experience in setting standards for, and licensing, hazardous waste facilities. This has informed our proposed Yucca Mountain standard. Our Yucca Mountain proposal was designed to achieve the same level of protectiveness, an increased risk in the 10⁻⁶ to 10⁻⁴ range (1 chance in 1,000,000 to 1 chance in 10,000), as all these other Agency standards.

EPA Initiatives

Integrated Information Systems

Question 58. EPA's fiscal year 2001 summary budget provides \$30 million for Integrated Information Initiative. Is this a similar initiative as the Integrated Risk Information System, an EPA data base of Agency consensus health information on environmental contaminants?

Response. The Integrated Information Initiative is designed to fundamentally change the way the Agency integrates and manages information by creating a centralized, integrated information network that supports EPA's core business needs and establishes a data exchange network to provide a wide-range of shared information systems with the States (who provide the bulk of environmental information), Tribes, and other stakeholders to improve data quality and accuracy. The Integrated Risk Information System (IRIS) is a much smaller and contained system. Its functionality addresses lists of chemicals and their attributes and enables chemical modeling. As the Agency implements a chemical standard, we anticipate that the IRIS information will likely be more useful and could be linked to the information integration efforts to provide as complete an environmental picture as possible for those who provide and access environmental information.

The Administration's budget request of \$30 million will support the first steps for EPA, in close partnership with the States, to nationally integrate a core set of shared environmental information into a single, easy to use, and less burden some source of reliable information. The \$16 million will support State and tribal efforts to integrate and manage their environmental information systems and the remaining \$14 million will fund EPA's efforts. It is critical for EPA to modernize and integrate the Agency's systems together with the States and develop a mutually agreed upon approach that will coordinate all of the integration efforts.

Question 59. How does the Agency ensure that the data input into these information systems is accurate?

Response. EPA must ensure the quality of the environmental information that is provided for use and delivery in Agency information systems. The information systems must maintain the integrity of the data that are delivered to the Agency. The Information Integration Initiative will substantially contribute to data accuracy by initiating and incorporating improved data quality efforts including the Facility Identification System that will provide high quality, accurate, and authoritative facility identification records. In addition, the electronic reporting/central receiving facility supported in the integration initiative will centralize and streamline the receipt, validation, storage and sharing of the environmental data reported to EPA; thus transcription errors will be greatly reduced. Central receiving will address issues of security, data quality, error prevention and correction, burden reduction, and efficiency in the electronic transmission of data.

Question 60. Does the IRIS system only include data produced by EPA or other sources, for example academic papers or industry groups?

Response. IRIS contains EPA's consensus positions on the potential human health effects resulting from lifetime exposure to chemical substances found in the environment. IRIS assessments address two components of risk assessment: hazard characterization and dose response assessment. For hazard characterization, the question is: Does exposure to the chemical agent have the potential to cause adverse health effects and what are the nature of these health effects. For dose-response assessment, the question is: What is the relationship between the exposure and dose and the likelihood of adverse health effect?

In performing hazard and dose response assessments for IRIS entry, EPA utilizes the best available scientific information, both in the published and unpublished literature. EPA conducts a thorough open literature search for pertinent scientific information for each chemical substance. During the information gathering phase, the Agency also invites the public to provide scientific comments, analyses, studies, and other pertinent scientific information, particularly unpublished studies or other primary technical sources that EPA may not otherwise be able to obtain through open literature searches.

Question 61. If IRIS does include information from a wide variety of sources, does it lose credibility in that the data may not have been peer reviewed or has been taken out of context?

Response. Most data utilized in conducting hazard and dose-response assessments for IRIS entry, (e.g., those generated by the National Toxicology Program or presented in the academic literature), have received independent peer review. Some data submitted by industry groups directly to EPA generally have not received peer review prior to EPA submission. However, all information used in IRIS has received peer review within EPA, at a minimum through the consensus review of each chemical assessment in which each EPA organization has participated. Since 1995, all IRIS assessments have undergone an external peer review prior to consensus review and inclusion in the IRIS data base.

Question 62. Please quantify the reduction in public health and ecological risks affecting the American public directly attributable to EPA activities in the last decade or so.

Response. Quantifying all of the human health and ecological risks facing the country today is not a simple task, and one that is not complete. We have made significant efforts over the last decade in improving our understanding of risks and incorporating risk reduction into our strategic planning and programmatic activities. However, there is still much more to learn about the nature and extent of relative environmental risks, as we do not yet have tools and methods for quantifying many of the health and ecological risks that are addressed by EPA activities. Understanding risk is one factor in making decisions for the Agency. Decisions also need to factor in technological and policy opportunities to reduce risk, costs and benefits from actions, and the legislative and administrative authorities available to address risks.

We believe that EPA's programs to reduce air pollution, reduce water pollution, cleanup hazardous waste sites, and to manage new wastes, toxic substances and pesticides have made great strides over the last decade in reducing health and ecological risks affecting the American public. At the beginning of the decade, the Reducing Risk report from EPA's Science Advisory Board (SAB) made ten recommendations to EPA to help set priorities in reducing environmental risks. These ten recommendations are as follows:

1. EPA should target its environmental protection efforts on the basis of opportunities for the greatest risk reduction. Since this country has already taken the most obvious actions to address the most obvious environmental problems, EPA needs to set priorities for future actions so the Agency takes advantage of the best opportunities for reducing the most serious risks.

2. EPA should attach as much importance to reducing ecological risk as it does to reducing human health risk. Because productive natural ecosystems are essential to human health and to sustainable, long-term economic growth, and because they are intrinsically valuable in their own right, EPA should be as concerned about protecting ecosystems as it is about protecting human health.

3. EPA should improve the data and analytical methodologies that support the assessment, comparison, and reduction of different environmental risks. Although setting priorities for national environmental protection efforts always will involve subjective judgments and uncertainty, EPA should work continually to improve the scientific data and analytical methodologies that underpin those judgments and help reduce their uncertainty.

4. EPA should reflect risk-based priorities in its strategic planning processes. The Agency's long-range plans should be driven not so much by past risk reduction efforts or by existing programmatic structures, but by ongoing assessments of remain-

ing environmental risks, the explicit comparison of those risks, and the analysis of opportunities available for reducing risks.

5. EPA should reflect risk-based priorities in its budget process. Although EPA's budget priorities are determined to a large extent by the different environmental laws that the Agency implements, it should use whatever discretion it has to focus budget resources at those environmental problems that pose the most serious risks.

6. EPA and the Nation as a whole should make greater use of all the tools available to reduce risk. Although the national has had substantial success in reducing environmental risks through the use of government-mandated end-of-the-pipe controls, the extent and complexity of future risks will necessitate the use of a much broader array of tools, including market incentives and information.

7. EPA should emphasize pollution prevention as the preferred option for reducing risk. By encouraging actions that prevent pollution from being generated in the first place, EPA will help reduce the costs, intermedia transfers of pollution, and residual risks so often associated with end-of-the-pipe controls.

8. EPA should increase its efforts to integrate environmental considerations into broader aspects of public policy in as fundamental a manner as are economic concerns. Other Federal agencies often affect the quality of the environment, e.g., through the implementation of tax, energy, agricultural, and international policy, and EPA should work to ensure that environmental considerations are integrated, where appropriate, into the policy deliberations of such agencies.

9. EPA should work to improve public understanding of environmental risks and train a professional work force to help reduce them. The improved environmental literacy of the general public, together with an expanded and better-trained technical work force, will be essential to the nation's success at reducing environmental risks in the future.

10. EPA should develop improved analytical methods to value natural resources and account for long-term environmental effects in its economic analyses. Because traditional methods of economic analysis tend to undervalue ecological resources and fail to treat adequately questions of intergenerational equity, EPA should develop and implement innovative approaches to economic analysis that will address these shortcomings.

Using these recommendations, EPA has made great progress in reducing human health and environmental risks facing the country. Although we have not fully quantified and measured all environmental risks, we have used the broad guidance from the SAB to reduce relative risks. In the last decade, EPA fostered the use of market-based mechanisms to effectively control pollution. EPA placed great emphasis on pollution prevention, rather than simply focusing on end-of-the-pipe controls. Improving the public's understanding of environmental risks is at the cornerstone of EPA's efforts to improve access to environmental information. We have worked closely with other Federal, State, and local government agencies and departments to include environmental considerations in their decisionmaking. EPA has placed greater emphasis on ecological risks, most notably in efforts to address global warming which is in many ways the greatest global ecological threat that we face.

Our ability to understand and use risk assessment in decisionmaking continues to be a great challenge. As EPA has implemented the SAB recommendations over the last decade, we have continued to call on them to revisit this important issue. We requested the SAB revisit the 1990 effort and update it. Specifically, we requested that the SAB explore additional techniques and criteria for identifying environmental risks, identify risk reduction opportunities and strategies, identify uncertainties and data quality issues associated with risk rankings, provide an assessment of the costs and benefits of various risk reduction options, and propose a new framework for assessing ecosystem value.

In response to our request, the Science Advisory Board continues to work on these issues and has prepared a draft report entitled Integrated Environmental Decisionmaking in the Twenty-first Century. The title of this report indicates a new direction for the SAB in using risk assessment in decisionmaking. As the report notes,

Seen from a scientific perspective, integration (of risks) can improve the environmental decisionmaking process in several ways. Interrelated and cumulative environmental risks, as they are found in specific integrated contexts such as particular ecosystems, local communities, segments of the population, or industrial sectors, can be assessed and compared. Formal cost/benefit methodologies can be improved so they weigh the full costs and benefits of different risk management options, and so they begin to weigh difficult-to-monetize values, such as ecological sustainability and intergenerational equity. They can be designed not only to control well-understood risks and prevent potential risks, but also to manage emerging risks whose implications are just beginning to be studied the focus of decisionmaking in goals that are defined in terms of improved human health and ecosystem outcomes, rath-

er than simply documenting steps taken, is consistent with accountability mandates that EPA must meet as a result of the government Performance and Results Act (GPRA).

To help inform the public and environmental policymakers on the economic benefits and costs of environmental protection, it is critical to have information on expenditures incurred by society to meet environmental requirements. Historically, one of the most important data sources for national spending by manufacturing and electric utilities has been a survey performed by the Census Bureau—the Pollution Abatement Costs and Expenditures (PACE) survey. The PACE survey has enabled the Agency to prepare Congressionally mandated reports on national spending on environmental protection, including EPA's Environmental Investments: The Cost of a Clean Environment. The “retrospective” and “prospective” studies on the economic benefits and costs of the Clean Air Act also have made extensive use of the PACE data.

The most comprehensive efforts to date to assess reduced risks from EPA activities have been EPA's studies of the benefits and costs of the Clean Air Act: The Benefits and Costs of the Clean Air Act 1970–1990 (the “retrospective” study) and The Benefits and Costs of the Clean Air Act 1990–2010 (the “prospective” study). Large reductions in risks to public health and ecosystems were obtained from the 1970 Clean Air Act (CAA) and the Clean Air Act Amendments (CAAA) of 1977 and 1990. Throughout the last decade, these laws have required that all areas in the United States meet specific National Ambient Air Quality Standards (NAAQS), which are routinely re-evaluated by EPA as the state of our knowledge progresses to ensure that public health in the U.S. is protected with an adequate margin of safety. NAAQS have been established for seven “criteria” pollutants—sulfur dioxide (SO₂), nitrogen oxides (NO_x), carbon monoxide (CO), particulate matter (PM), ozone (O₃), volatile organic compounds (VOCs) and lead. In addition, the statute has also required controls on emissions of hazardous air pollutants (“air toxics”).

Concerning risk reductions over the last decade or so, the prospective study found substantial risk reductions have been achieved in the area of criteria pollutants, including a mean of 14,000 avoided deaths per year in the year 2000. Additionally, millions of persons are projected to avoid a wide variety of ailments ranging from major illnesses such as chronic bronchitis, asthma and hospitalization to minor respiratory illnesses. Additional, non-health improvements to society's welfare are achieved from enhanced visibility in recreation areas, increased worker productivity, increased agricultural and timber yields, as well as improved recreational fishing from decreases in acid deposition into freshwater streams and lakes. The quantified and monetized benefits, as of the year 2000, amount to \$71 billion per year. Methodologies are insufficient at this time to quantify the risk reductions achieved by other portions of the Clean Air Act, such as provisions for reducing air toxics emissions, but that the Agency is making substantial progress in developing such methodologies.

It should be noted that several years of methodological development, including numerous reviews by EPA's Science Advisory Board, were required for the CAA retrospective and prospective assessments to be completed. EPA is now in the process of planning a similar assessment of the costs and benefits of the Clean Water Act, which we also expect to require a significant methodology development effort. We hope to move on to conduct similar assessments for other statutes and program areas in the future, and to update these assessments on a regular basis. Independent of these program-level assessments, EPA will continue with its numerous research activities, including its extramural grants programs, to improve our ability to quantify reductions in health and ecological risks.

Question 63. For the most risk significant hazards identified above, what are the options available to decisionmakers to reduce risk? What are the most effective risk reduction opportunities? Describe the role of Federal, State and local government, industry, the public and interest groups in the various options. Based on your knowledge, are stakeholders in agreement with your responses?

Response. This is an important question, as risk-reduction options can not be identified in a generic manner, independent of a particular hazard to be addressed. Whenever EPA initiates activities to seek reduction of an environmental hazard, an extensive effort is undertaken to identify an array of potential risk-reduction options for further assessment. Options identification usually includes extensive public participation. Depending on the particular hazard, the options identification process may include interactions with other Federal agencies and State and local government agencies, as well as regulated industries, interest groups and individual citizens. The most effective risk reduction opportunities are identified through cost-benefit analysis.

For example, particulate matter (PM) is a criteria pollutant found to be a priority concern under the Clean Air Act. There are many sources of PM, both natural (biogenic) and man-made (anthropogenic.) There are large particles (PM₁₀) and smaller particles (PM_{2.5}). Natural sources like road dust is composed of more large particles than small particles. Emission inventories conducted by EPA find that for PM₁₀, typical anthropogenic sources such as transportation, industrial processes and fuel combustion only make up about 10 percent of the total emissions inventory, with fugitive dust, wind erosion, and agriculture/forestry producing the bulk of emissions. However, this does not imply that these latter sources are uncontrollable. Various policy options are available to reduce emissions from these sources. While for PM_{2.5}, there is more uncertainty about the components which make up this pollutant due to a less developed monitoring network.

There are many possible methods to reduce both large and small particles from being released into the air. These range from controls on large industrial sources to strategies such as the paving of dirt roads. The National Ambient Air Quality Standards promulgated by EPA in 1997 for Ozone and PM give flexibility to the States in designing plans for meeting these new standards in cost-effective ways. If the States are ultimately called upon to implement these standards, local governments, industry, the public and special interest groups will all be able to work with their States to develop strategies for attaining compliance.

The issues raised by these three questions are important ones for EPA, and have significant implications for our future activities. As we look forward and plan for our activities for next several years, we must consider not only the risk posed by existing environmental hazards, but our expectations about how these risks may change in the coming years, as well as our statutory authorities, available options to address these risks (including market incentives, information campaigns and other methods in addition to traditional regulatory approaches), the costs and benefits of those options, and the feasibility of implementing the options.

At the same time as we look forward to identify the best risk reduction opportunities, it is also important that we look back to our past activities to estimate the actual risk reductions that these activities have achieved. This type of analysis can help to determine if EPA has been on the "right track", and also provides important lessons that we can apply to our future activities. We have recently completed two substantial analyses of the benefits and costs of the Clean Air Act, and are now initiating similar efforts for other program areas.

We have learned a great deal from the analyses of relative risks, and from our efforts to quantify risk reductions achieved by EPA activities. While these analyses have been hindered in some areas by limitations in the available data and methodologies, we seek continual improvement our risk analysis capabilities by applying the findings of EPA research, research conducted by EPA grantees, and efforts such as the Integrated Risk Project conducted by EPA's Science Advisory Board. We would welcome a continuing dialog with Congress and with our stakeholders addressing how we can best improve our risk analysis capabilities, and how we can best apply these capabilities, in the coming years.

Persistent Bioaccumulative and Highly Toxic Chemicals

Question 64. EPA's fiscal year 2001 summary budget states that "in 2001, the Agency will encourage and support implementation activities to meet our GPRA commitment of reducing PBT chemicals." What is the GPRA goal for PBT chemicals?

Response. EPA has committed to reducing the levels of the highest priority PBTs in hazardous waste by 50 percent in the year 2005, starting with a 1991 baseline.

Question 65. Is the Agency on track to meet those goals?

Response. EPA has set internal milestones to track progress toward meeting the goal. First, EPA released a draft PBT list of 53 chemicals in late 1998, and is nearly finished responding to issues raised in public comments on that proposal. We expect to issue a final list later this year. Second, EPA must develop a methodology to allow us to measure progress. We have developed a draft methodology which uses existing data collected under the Toxics Release Inventory (TRI), so that no additional burden will be imposed on States or the regulated community. EPA is making progress toward these interim milestones and we expect that in 2001 we will be able to issue a preliminary report on progress toward meeting the 50 percent goal.

In the meantime, the Agency, the States, and industry, have a number of activities underway for certain key PBTs, such as mercury. For example, levels of mercury in fluorescent lamps have been greatly reduced over the past 10 years, and EPA recently issued "special collection" rules to facilitate the collection and proper management of lamps.

RESPONSES BY CAROL BROWNER TO ADDITIONAL QUESTIONS FROM SENATOR BENNETT

Midvale Slag Superfund Site

Question 1. When should I expect a courtesy of a written response to the jointly signed November 30, 1999 letter?

Response. A letter, dated February 25, 2000 was sent to your office from William Yellowtail, Regional Administrator for Region 8. The letter described past and ongoing efforts to reach a settlement with Littleton, Inc.

Question 2. I am very interested in seeing progress toward a resolution of this matter. I understand that EPA has been working on this site (Midvale Slag) for over 15 years. The majority of the site is cleaned up. What is the impediment to completing the full cleanup of this site?

Response. There is no impediment to completing cleanup of the site. Work is underway to ensure that the final remedy is consistent with future land use and redevelopment. The Midvale Slag site comprises approximately 450 acres of property in the City of Midvale, Utah. The southern portion of the site, approximately 180 acres, was used by U.S. Smelting, Refining and Mining Company (U.S. Smelting) for smelting and refining activities for approximately 80 years, beginning in the 1870's until 1958. Five different lead or copper smelters operated over time on the site. In addition, zinc, silver, and cadmium were recovered at the site. Arsenic production began as early as 1913 with the construction of an arsenic plant and arsenic baghouse. These activities resulted in the creation of large amounts of waste material containing heavy metals, including lead and arsenic, in levels that threaten human health and the environment. The smelter was shut down in 1958, and, thereafter, the smelter buildings were demolished. Large piles of mixed smelter wastes including tailings, calcine, demolition debris, and baghouse dust cover the property. Massive slag piles also cover large portions of the property.

The northern portion of the Midvale Slag site, approximately 270 acres, was contaminated with mining wastes created from the smelting and refining activities on the southern portion which were dispersed through disposal and migration. While most of the northern portion is vacant land, the northwest portion contains the Winchester Estates, a trailer park residential development.

U.S. Smelting also conducted operations on the Sharon Steel Superfund site, adjacent to the Midvale Slag site, where lead, zinc, and copper ores were milled from 1906 to 1971. Approximately 10 million tons of tailings from milling operations were left in uncovered piles, in some places over 50 feet deep. In addition to the 270 acre milling facility, the Sharon Steel site also includes 571 acres of residential and commercial areas downwind of the milling facility that had been contaminated by wind borne tailings.

The Sharon Steel site was listed on the National Priorities List in August 1990; the Midvale Slag site was listed in February 1991.

EPA has completed cleanup of the Sharon Steel site. Contamination from the milling facility that had migrated onto more than 600 residential and business properties was excavated from the properties and moved to the milling facility. The tailings were consolidated and a soil cap was constructed over the consolidated pile. The cleanup also provided for groundwater monitoring and restoration of wetlands.

Cleanup of the residential portion of the Midvale Slag site has also been completed. Contaminated soils in the Winchester Estates residential development and the adjacent undeveloped residential area were excavated and removed by the State of Utah under a cooperative agreement with EPA. The excavated material was placed on the southern portion of the Midvale Slag site pending a final remedy decision.

Cleanup on the southern portion of the Midvale Slag site, the old smelting facility, is ongoing. To date, EPA has erected fencing to limit access, removed and disposed of hazardous chemicals in approximately 2,500 chemical containers that had been left in old laboratory buildings, plugged old production wells that may have been conduits for contamination to the deep groundwater aquifer and monitoring wells that were no longer needed, excavated contaminated material from a small unmarked pioneer cemetery and from a small area of this site currently being used as a lumber yard. In addition, EPA is in the process of evaluating potential remedies for final site cleanup that will address mixed smelter wastes, the slag piles, and groundwater contamination.

In completing the cleanup of the site, EPA is very concerned about the impact of its activities on future development. In making a final remedy decision, EPA wants to take into account future land use to the maximum extent possible consistent with our ultimate objective of protecting human health and the environment. We believe that the most efficient and effective way to incorporate future land use into remedy

selection is to promote the creation of a development plan for the property simultaneously with the evaluation of remedial alternatives. We are encouraging your constituent, Littleton, Inc., the owner of the site, to work with us in a cooperative fashion together with the City of Midvale, local citizens, and the State of Utah, and to begin working on a development plan for future use of the Midvale Site. We could then carefully evaluate the impact of various cleanup alternatives on the development plan and take all appropriate factors into account in selecting the final site-wide remedy.

In order to promote this integrated approach to remediation and development of the Midvale Slag site, EPA has taken a number of steps. First, EPA has included the Midvale Slag site in the Superfund redevelopment initiative. Under this program, the City of Midvale has received, pursuant to a cooperative agreement, with EPA \$100,000 to assist it in assessing potential future use of the site. Second, EPA is working closely with Littleton's technical advisors regarding cleanup issues. At Littleton's request, EPA is now evaluating additional remedial alternatives that your constituent indicated would be more conducive to its future development of the site property. Third, EPA is encouraging the creation of a process to be facilitated by a neutral party whereby all stakeholders, including Littleton, Inc., the City of Midvale, the State of Utah, the local citizen's group, and EPA would have the opportunity to discuss remedy selection and future development of the site. Fourth, EPA has provided additional funding through our technical assistance grant program to allow the local community to evaluate redevelopment issues.

Question 3. My constituent is anxious to resolve the liability issues and move forward with Site (Midvale Slag) redevelopment. However, every settlement offer has been rebuffed without EPA on any level showing any willingness to suggest counter-proposals to resolve the matter. Why can't my constituent obtain any meaningful feedback from the Agency?

Response. In the fall of 1990, the United States and the State of Utah entered into settlements with former owners and operators of both the Sharon Steel and Midvale Slag sites. The settling parties collectively paid approximately \$61 million to EPA to resolve their potential liability for cleanup of both sites. During the same timeframe, the United States also made a cash-out settlement offer to Littleton which was rejected. EPA used the settlement proceeds to establish two special accounts, one for each site, and deposited approximately \$56 million in the Sharon Steel special account and \$5 million in the Midvale Slag special account. Funds in the special accounts have been used to pay cleanup costs for the respective sites. EPA also reached an agreement with Ed Butterfield, the owner of a 5.3 acre parcel that is included within the Midvale Slag site.

EPA efforts to reach a settlement with Littleton, Inc., are on-going. It is EPA's position that all potentially responsible parties should pay their fair share of cleanup costs. As Superfund money has been and continues to be used to cleanup the Midvale Slag site, restoring and enhancing the value of the site property, we believe that it is fair and equitable that a significant portion of the equity created by such cleanup be used to reimburse the Superfund. Estimates of the value of the site property once the cleanup is complete have ranged between \$10 million and \$20 million.

Littleton has asserted that the United States is a liable party under CERCLA in light of the activities of Metals Reserve Company which took place over approximately two out of the 80 years that the facility was used for smelting and refining. EPA does not agree that the Federal Government is responsible for all the waste at the site and should therefore pay for virtually all past and future cleanup costs, as asserted by Littleton in its lawsuit against the United States. Nonetheless, we have advised Littleton's legal counsel that EPA is willing to discuss an allocation of cleanup costs that would be fair and equitable to all parties given the facts of the case, and that we would revisit the allocation of the settlement proceeds that involved the Sharon Steel site. We have also suggested to Littleton's counsel that the parties involve the services of a neutral mediator to facilitate these discussions. In addition, we have encouraged Littleton's counsel to consider entering into a prospective purchaser agreement that would involve the company, its development partners, and EPA. This settlement approach would address liability issues while allowing redevelopment to proceed without further delay and has been used successfully in many other similar situations.

Question 4. I understand that Midvale City is using Federal Brownfields grant money to create a hypothetical master plan for the Site. This is being done without the involvement of the ultimate site developer, who cannot be identified until Littleton's liability issues are resolved. Why are we using limited Brownfields grant money to develop a hypothetical land use plan that in all likelihood will be of little or not value when it comes to actual Site redevelopment?

Response. Midvale City is not the recipient of a Brownfields grant, rather it is the recipient of a Superfund Redevelopment Pilot cooperative agreement, which is being used to do future use planning for the site so that EPA can incorporate that information into remedy decisions. This planning is underway and has included participation by the Littleton's representative. A key visioning phase is scheduled to be completed in time to be factored into the plan for the Feasibility Study this spring. EPA has encouraged the Littleton's representative to get a developer involved in the planning and has suggested that working with them could lead to a better remedy.

RESPONSES BY CAROL BROWNER TO ADDITIONAL QUESTIONS FROM SENATOR CHAFEE

Superfund

Question 1. In the fiscal year 2001 budget request, EPA asserts that more than 670 sites have been cleaned up. How many NPL sites currently have records of decision (ROD) in place? Furthermore, how many NPL sites that have a ROD in place have not yet achieved "construction complete" status?

Response. As of March 15, 2000, there are 1,205 NPL sites that currently have records of decision (ROD) in place. There are 543 NPL sites that have a ROD in place and have not yet achieved "construction complete" status. Some of the sites that have been cleaned up did not have RODs because the sites were addresses through State deferrals or cleaned up through the removal program.

Question 2. EPA listed an average of 26 sites on the NPL per year from fiscal year 1995-1999. Last year, EPA listed approximately 40 sites on the NPL. How many sites do you anticipate listing in fiscal year 2001? Is EPA taking any actions that would directly lead to an increase or decrease in the number of additional annual NPL listings?

Response. The fiscal year 2001 President's budget request assumes that the Agency will list approximately 40 new sites on the NPL. It is difficult to predict future NPL listings due to a range of site-specific technical, policy, and resource considerations which influence each listing decision. EPA is not taking any actions that would directly lead to an increase or decrease in the number of additional annual NPL listings.

Question 3. EPA estimates that it currently takes 8 years from the time a site is listed on the NPL until it achieves "construction complete." Do you anticipate that EPA can increase the pace of cleanups in the near future? In addition, is EPA taking any action that will reduce the cost of cleanups in the near future in order to lessen the burden on the Hazardous Substance Trust Fund?

Response. EPA's estimate of an 8-year duration from site listing to construction completion is based on historical experience at sites where construction completions have been achieved. As a result of EPA's strong focus on achieving construction completions complemented by our implementation of the Superfund Administrative Reforms, this pace of activity is decidedly faster than the pace of construction completion during the first 12 years of the program.

EPA expects to continue to implement the Administrative Reforms to ensure the most effective, efficient, and fair use of public and private time and resources. These efforts include making the most use of our Remedy Review Board to evaluate the soundness of proposed remedies, continuing to reassess remedies in light of new scientific and technical information, and using our enforcement tools to allocate liability for cleanup costs quickly and equitably.

Question 4. EPA requested \$1.5 billion for the Superfund program in fiscal year 2000 and \$1.45 billion in fiscal year 2001. In EPA's view, what changes have occurred in the Superfund program to require decreased funding request?

Response. The president's request for \$1.45 billion in fiscal year 2001 is a \$50 million increase over the fiscal year 2000 enacted budget. This request for additional funding will allow the program to achieve the 900 construction completions by 2002. The Agency's entire fiscal year 2001 budget request balances fiscal responsibility with achieving environmental accomplishments.

Question 5. EPA's fiscal year 2001 budget request states EPA will complete 75 construction completions. However, it has been reported that EPA will change the definition of construction complete to include work completed at sites that are proposed for NPL listing but were never finalized. How many of the estimated 75 construction completions in fiscal year 2001 will be attributable to the definition change? Will the change in the definition of the term "construction complete" apply retroactively and increase the total universe of sites that are construction complete?

Response. None of the estimated 75 construction completions in fiscal year 2001 will be attributed to the new definition. The original construction completion definition will be used to measure progress toward the GPRA goal. EPA is considering a new parallel measure to report construction completion work at sites "Proposed" to the NPL. This parallel construction completion definition will be used retroactively to capture the legitimate construction work at completed sites "proposed" to the NPL, but will not be used to increase the total universe of sites that are construction complete.

Brownfields

Question 6. EPA has requested \$600,000 less for fiscal year 2001 than was appropriated by Congress in fiscal year 2000. Which part of EPA's Brownfields Initiative will absorb that funding cut?

Response. The \$600,000 to which the question refers was a technical change of one component of the Brownfields program. This was to have entailed no reduction in real terms to the total level of effort in the program. Based on Congressional inquiries concerning the apparent reduction, EPA will restore funding during the fiscal year 2001 Operating Plan process and maintain the same level of effort in the program as appropriated in fiscal year 2000.

Question 7. A significant number of States have implemented successful brownfields programs. Do you believe that EPA removal activities and NPL listings will decline in the future as State programs are strengthened further?

Response. The Agency does not expect State Brownfields program to have a measurable impact on the number of removal activities or NPL listings because they address different types of sites. Removals are undertaken at sites that pose imminent risks to public health. NPL sites are the Nation's worst uncontrolled hazardous waste sites. Brownfields programs address sites that generally pose lesser risks.

Underground Storage Tanks

Question 8. There have been several recent reports that MTBE is contaminating groundwater, due in large part to leaking underground storage tanks (USTs). As stated in the budget request, EPA's goal is to have 93 percent of underground storage tanks in compliance with Federal law by the end of fiscal year 2001. When do you anticipate that 100 percent of the nation's USTs be in compliance?

Response. Our goal is to achieve 93 percent compliance with the most recent regulatory requirement (December 22, 1998) to have spill, overflow, and corrosion protection. There are other requirements. Among those is the requirement to do leak detection. We anticipate that compliance with the spill, overflow and corrosion protection requirements may approach 100 percent in fiscal year 2003.

Question 9. There are reports that underground storage tanks installed in compliance with the December 22, 1998 deadline are already leaking. What is EPA doing to ensure that tank owners that have made the necessary investments and upgraded their tanks to comply with Federal law will not have to make additional investments?

Response. EPA has no data that underground storage tanks (USTs) installed in compliance with the December 22, 1998 deadline are already leaking. However, EPA, working with the States, is undertaking activities to evaluate UST system performance, determine ways to improve UST systems, and improve owners'/operators' operation and maintenance of UST systems. The results of this evaluation, expected in 2002, will provide EPA with valuable data to make appropriate decisions about specific revisions to the UST regulations, should that be necessary.

EPA is also working to increase the education of owners and operators of UST systems. For instance EPA is finalizing an "Operations and Maintenance Manual" for State inspectors and individual tank owners and/or operators. The manual identifies maintenance procedures that must be accomplished by Federal regulations. In addition, the manual is filled with numerous suggestions to optimize the performance and benefits that are derived from leak detection, spill and overflow, and corrosion protection equipment that are part of a total UST system. Although no system is foolproof against failure, increasing awareness of proper maintenance is essential in averting a return to the magnitude of leaks that are presently being cleaned up from previously substandard underground storage tank systems. Owners and operators will have to make regular periodic investments to ensure they are performing proper operation and maintenance.

Clean Water

Question 10. Combined sewer overflows present a serious problem in Rhode Island. The Narragansett Bay Commission, the regional wastewater authority for

metropolitan Providence, faces the burden of constructing a Phase One collection system at an estimated cost of \$350 million. Each time there is a major storm in Providence, runoff overwhelms the treatment plants and raw sewage escapes into Narragansett Bay. Shellfish beds must be closed and significant threats to public health are raised. This is a problem of national significance. Similar conditions exist in older urban coastal areas. Is EPA doing enough to help underwrite the enormous capital costs that we and all State governments and ratepayers are facing, considering the consequences to water bodies of national significance?

Response. The President's fiscal year 2001 budget honors and expands the Administration's commitment to capitalize State's SRF programs such that they will be able to provide \$2 billion in annual financial assistance over the long run. Given that, and the fact that we now have a better understanding of the water quality challenges that States and local governments face, the Administration believes it would be useful to have a dialog with the Congress and the broad range of stakeholders on the future funding levels and project eligibilities of a reauthorized Clean Water SRF program.

With respect to Combined Sewer Overflow (CSO), it is important to note that EPA's Combined Sewer Overflow (CSO) Control Policy recognizes the site-specific nature of CSOs. The policy provides the necessary flexibility to tailor controls to local situations. Implementation of the Policy ensures that CSO controls are cost effective and meet appropriate health and environmental objectives.

Question 11. Despite having made considerable progress over the years in cleaning our Nations' waters, significant investments are still required. According to your 1996 Clean Water Needs Survey, the Clean Water State Revolving Loan Fund (SRF) faces roughly \$140 billion in eligible needs over the next 20 years. This number is expected to be revised upwards to \$200 million in your next Needs Survey. EPA is in the process of conducting a "gap analysis" to estimate the difference between needed expenditures and actual expenditures. When will EPA complete its analysis and can you estimate what the funding gap will be?

Response. The preliminary results of the "gap analysis" were reported to Environment and Public Works Committee staff at a briefing on February 11, 2000. We continue to work on other aspects of the study including a broad exploration of approaches to reducing the costs of meeting infrastructure needs.

Question 12. What are the current annual expenditures on wastewater infrastructure? How much of the amount is paid for by the Federal Government and how much is covered by State and local governments?

Response. We estimate that total State, local, and Federal spending for the construction of municipal wastewater treatment for calendar year 2000 is currently about \$9 billion per year. Most of this spending has traditionally come from State, local government or local sewage authorities. Federal financial support (from EPA, the Rural Utility Service of the Department of Agriculture, and the Department of Housing and Urban Development) accounts for up to one-third of the total annual spending.

Question 13. Despite the considerable existing need, your budget proposes to decrease funding for the Clean Water SRF by \$550 million. Where do you intend to allocate those additional resources? Is this money being used to make significant investments in another area?

Response. The Agency believes its request for the Clean Water State Revolving Fund represents a substantial investment in needed infrastructure improvements. In the case of the CWSRF, the Agency is honoring and expanding its commitment to capitalize the Fund such that it will be able to provide at least \$2 billion in annual financial assistance over the long-term, a level consistent with historical levels of wastewater funding through EPA. Since program inception, over \$17 billion has been invested in the CWSRF—a level more than twice the original Clean Water Act authorization. Total SRF funds available for loans since 1987 reflecting loan repayments, State match dollars, and other sources of funding, are approximately \$30 billion, of which \$26 billion has been loaned to communities (\$4.2 billion was available for loans as of June 1999). The fiscal year 2001 budget level for the CWSRF continues to ensure the viability of the Fund. In terms of future funding for the CWSRF, the Administration believes it would be useful to have a dialog with the Congress and the broad range of stakeholders on the funding levels and project eligibilities of a reauthorized CWSRF program.

EPA's fiscal year 2001 budget request reflects support for the numerous areas requiring focused attention on some of the most pressing threats to a clean and healthy environment. Ensuring all Americans live in a clean and healthy environment requires efforts addressing all sources of pollution and all means by which pollution threatens human health and the environment.

In the area of water quality, nonpoint source pollution is the largest remaining threat, and EPA is dedicated to addressing water quality through increased funding in the Nonpoint Source Pollution grants, the water quality State grants addressing Total Maximum Daily Loads (TMDLs), and our new Great Lakes initiative grant program. Threats to human health along the U.S.-Mexico Border are of particular concern, and EPA is responding by investing in infrastructure financing for this geographic area susceptible to waterborne diseases.

Cleaning America's air is also a top priority. Over one-third of Americans still live in areas where the air does not meet the new air quality standards. In fiscal year 2001 EPA is investing in three major areas to achieve clean air goals through cost-effective and innovative means: the Clean Air Partnership Fund, Climate Change Technology Initiative, and State and tribal air grants. The Clean Air Partnership Fund will be a catalyst for innovative local, State, and private partnerships for air pollution. Meeting the Climate Change challenge requires investments from across the Federal Government as we address the significant threat that global warming poses to public health and the environment. EPA's investment in air State and tribal grants will address regional haze and integrate those programs with approaches to reducing ozone and fine particulate matter.

In addition, EPA is committed to building a strong environmental presence on Tribal lands. To that end, EPA's investment in Tribal General Assistance Program (GAP) grants will help ensure the development of sustainable and comprehensive core environmental programs in Indian Country.

Other areas of EPA investment include protecting food quality, drinking water research, and integrating environmental information. Implementing the Food Quality Protection Act of 1996 poses multiple challenges, and EPA will continue working toward ensuring all Americans enjoy the safest, most abundant, and most affordable food supplies in the world. EPA's investment in drinking water research will continue to strengthen the scientific basis for safe drinking water standards. Finally, EPA proposes to invest in an initiative aimed at enhancing the coordination of data collection activities with States and to improve collection methods.

In sum, all of these vital resource investments are ensuring that EPA and its partners meet the multi-faceted requirements in achieving human health and environmental protection.

RESPONSES BY CAROL BROWNER TO ADDITIONAL QUESTIONS FROM SENATOR HUTCHISON

Storm Water Phase II

Question 1. EPA determined under the final Phase II rule that the rule contains no regulatory requirements that might significantly or uniquely affect small governments and thus the rule is not subject to section 203 of the Unfunded Mandates Reform Act. Since the rule imposes six minimum control measures to be implemented by cities and counties on MS4s within their urbanized areas, please explain how that will not affect small governments?

Response. The Phase II rule will affect small governments, however section 203 of the Unfunded Mandates Reform Act looks at whether a rule significantly or uniquely affects small governments. Although Phase II expands the NPDES program to certain MS4s serving populations below 100,000 and although many MS4s are owned by small governments, EPA does not believe the rule significantly or uniquely affects small governments. Under the requirements of the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), EPA evaluated the economic impact of this rule on small governmental jurisdictions. EPA determined that compliance costs represent more than 1 percent of estimated revenues for only 10 percent of small governments and more than 3 percent of the revenue for 0.7 percent of these entities. In both absolute and relative terms, EPA does not consider this a significant economic impact on a substantial number of small entities. Therefore, EPA certified that the rule will not have a significant impact on small governmental jurisdictions.

MTBE

Question 2. As you know, Texas has several non attainment areas, that depend on blending MTBE to meet the 2 percent RFG oxygenate requirement to move closer to the achievement of the CAAs standards. I am concerned that current proposals to phase-out or limit MTBE production could result in unintended consequences that should be addressed before such action is taken.

As you know, the RFG program has been very successful and plays an important part in helping nonattainment areas achieve clean air goals. I am aware that EPA

has a proposal to allow an increase in Volatile Organic Compounds (VOC's), emissions to compensate for reduced MTBE use. However, as you know, increased VOCs would clearly have a negative health and environmental effect and would turn the o'clock back on air quality improvements that have been made over the last 25 years.

Response. The EPA is very mindful that any new regulations or standards being proposed carefully consider the impact on our current air quality benefits. In considering a VOC adjustment to the reformulated gasoline (RFG) Phase II standards for ethanol blends, EPA recognizes the fact that the oxygen content of gasoline affects the amount of carbon monoxide (CO) emissions from automobiles. Oxygenates, like ethanol and MTBE, lead to reductions in emissions of CO from 1990 technology cars, the benchmark used for the RFG program. MTBE-blended RFG typically contains 2.0 weight percent oxygen. Ethanol, on the other hand, is typically blended in RFG at levels of 10 volume percent which equates to 3.5 weight percent oxygen; thus, the oxygen content in ethanol-blended RFG is typically higher than in MTBE-blended RFG. According to EPA's complex model for certifying RFG, the CO reduction attributable to the typical ethanol-blended RFG (with 3.5 weight percent oxygen) is therefore greater than that attributable to the typical MTBE blend (with 2.0 weight percent oxygen).

The National Research Council recommended that "the contribution of CO to ozone formation should be recognized in assessments of the effects of RFG" in its report "Ozone-forming Potential of Reformulated Gasoline," p. 6, National Academy Press, 1999. Accordingly, the VOC proposal that EPA is considering would take account of the ozone benefits of CO emission reductions resulting from the use of oxygenates in the RFG program, which would allow for a slight increase in VOC. This would give fuel providers increased flexibility in blending ethanol into RFG.

Question 3. If the Federal oxygenate requirement, or MTBE were eliminated, what steps is EPA prepared to take to counterbalance the loss of this important tool in reducing pollution to current non attainment areas?

Response. If Congress amends the Clean Air Act to remove the Federal oxygenate requirement and eliminate or significantly reduce the use of MTBE, it is imperative that Congress at the same time insert into the Act language to ensure that the clean air benefits achieved through implementation of the reformulated gasoline program be preserved.

Question 4. State and local government in Texas, and many private companies have spent millions of dollars to comply with current Federal air standards. Has EPA studied what additional burdens would be imposed on those entities if the rules change now and fuel oxygenates or MTBE were not required for RFG?

Response. Additional burdens on State and local entities and the refining industry have been a major concern for the Agency. Any changes in fuel regulatory requirements must be implemented without disruptions to the nation's fuel supply system. Therefore, any changes to the current RFG requirements would need to provide sufficient lead time to both refineries and the distribution infrastructure while retaining flexibility in meeting the Agency's air quality goals and ensuring the fungibility in the nation's fuel system.

Question 5. EPA has testified that in the year 2000, the second phase of the RFG program will achieve even greater average benefits: a 27 percent reduction in VOCs, 22 percent reduction in toxics, and 7 percent reduction in oxides of nitrogen emissions that also contribute to the formation of urban smog. This is equivalent to taking more than 16 million vehicles off the road. Are these numbers still achievable without MTBE or the fuel oxygen requirement?

Response. Yes. As a result of the Agency's Blue Ribbon Panel process, EPA concluded that a combination of the lifting of the mandate with gradually imposed limits to MTBE use would be a cost-effective approach to significant reduction or an eventual phaseout of MTBE all together. During this phase-out period, and beyond, ethanol could be used by refiners in meeting RFG emission reduction requirements. Although the Agency would need to allow the industry adequate time and flexibility to modify their refining practices, we are confident that refiners can meet the Phase II standards should the Federal oxygenate mandate be lifted or MTBE use be restricted.

RESPONSES BY CAROL BROWNER TO ADDITIONAL QUESTIONS FROM SENATOR INHOFE

Question 1. What is the status of EPA's consideration of the October 20, 1999 environmental groups' petition to regulate CO₂ emissions from new cars and trucks? When does EPA plan to respond to the petition?

Response. On October 22, 1999, a coalition of 19 groups, headed by the International Center for Technology Assessment, submitted a petition asking EPA to regulate emissions of carbon dioxide and other greenhouse gases from new motor vehicles and engines. EPA has made no decision whether to grant or deny the petition. In compliance with the Agency's common practice and requests by Members of Congress, EPA plans soon to publish a notice asking for public comment on the petition. The notice will probably provide a 90-day comment period. Several comments have already been received and placed in a public docket that EPA has established for the petition. See docket number A-2000-04. EPA will consider all comments in making a decision on the petition.

Question 2. Under EPA's reading of the Knollenberg funding restriction, the Agency may issue regulations to reduce greenhouse gas emissions as long as the regulation is "not for the purpose of implementing, or in preparation for implementing, the Kyoto Protocol." But, reducing greenhouse gas emissions is the purpose of the Kyoto Protocol. As a practical matter, what real difference is there between issuing regulations to accomplish the purpose of the Kyoto Protocol and issuing regulations for the purpose of implementing the Protocol? Isn't EPA's reading of Knollenberg permissive rather than prohibitive or restrictive?

Response. The Clean Air Act authorizes (and, in places, requires) EPA to take a variety of actions to address air pollution problems entirely unrelated to climate change. As elaborated below, some of these actions can also have the indirect effect of reducing greenhouse gas emissions, depending on the sources that are controlled and the types of pollution reduction measures sources elect to use. In addition, certain provisions of the Clean Air Act authorize regulatory actions that directly address emissions of greenhouse gases. These provisions pre-date the Kyoto Protocol, and action taken under them carries out purposes articulated in the Clean Air Act itself and does not implement or prepare to implement the Protocol. EPA does not believe that the Knollenberg language bars, or was intended to bar, either of these types of regulatory action under the Clean Air Act.

The Knollenberg language covers EPA's proposal or issuance of a rule, regulation, decree, or order for the purpose of implementation, or in preparation for implementation of the Kyoto Protocol. EPA's regulatory activities implementing the requirements of the Clean Air Act are for the purpose of implementation of those particular requirements of the Clean Air Act, not the Kyoto Protocol.

As noted above, many EPA activities authorized under the Clean Air Act are entirely unrelated to climate change, but have various indirect effects, including reduction of greenhouse gas emissions. For example, control of sulfur dioxide for the purpose of reducing acid rain, or control of nitrogen oxides for the purpose of reducing tropospheric ozone, may have the indirect effect of reducing greenhouse gas emissions, depending upon the sources controlled and the types of abatement measures they elect to use. Protecting human health and the environment from ozone pollution and from acid rain are major goals of the Clean Air Act. The Knollenberg language does not on its face bar expenditures on such activities, and it would be unreasonable to assume that Congress intended such an interpretation.

Other provisions of the Clean Air Act authorize regulatory actions that directly address emissions of greenhouse gases, but do not implement or prepare to implement the Kyoto Protocol. For example, Title VI of the Clean Air Act, enacted in 1990, provides for EPA to take certain actions regarding the health and environmental risks of substances that serve as replacements for ozone-depleting chemicals. Section 612 directs EPA to place limits on the use of particular replacement chemicals if the Agency determines that other existing alternatives "reduce overall risk to human health and the environment." EPA believes that a reasonable and common-sense interpretation of the quoted language includes the consideration of contribution to climate change. Thus, in comparing the "overall risk" of various substitutes for ozone-depleting substances, EPA considers ozone depletion potential, human toxicity, flammability, contribution to global warming, occupational health and safety, and effects on water and air quality. Actions taken under section 612 of the Clean Air Act carry out the purposes of that provision (i.e., ensuring that replacements for ozone-depleting substances do not in turn create new and unnecessary risks). These actions are not for the purpose of implementing or preparing to implement the Kyoto Protocol.

Question 3. Similarly, EPA continues to work toward its clearly anticipated objective of implementing the Kyoto Protocol, despite that the treaty has yet to be submitted to the Senate for a vote, and despite the "Knollenberg" restrictions. The most recent euphemism for the prohibited "implementation" is pursuing the "compliance regime" under the Kyoto Protocol. Given this on its face appears to be a distinction without a difference, crafted to circumvent congressionally mandated limitations on

expenditure of taxpayer funds, please explain how pursuing a "compliance regime" to follow upon Kyoto's ratification is not in fact pursuing implementation, including distinguishing these purportedly different activities.

Response. EPA, together with the Department of State and other departments and agencies of the executive branch, is participating on behalf of the United States in continuing international negotiations over compliance-related issues under the Kyoto Protocol, as described in Decision 1/CP.4 of the Conference of Parties to the FCCC. These compliance-related international negotiations do not in any way implement the Protocol.

The Decision 1/CP.4 issues that are under negotiation include the identification of compliance-related elements under the Protocol and the development of procedures by which compliance with Protocol obligations should be addressed. These negotiations are intended to flesh out how the Kyoto Protocol's compliance system will operate should the Protocol enter into force. That is something the Senate undoubtedly will wish to understand fully in considering whether the U.S. should ratify the Protocol.

Participation in these compliance-related international negotiations also does not involve the proposal or issuance of rules, regulations, decrees or orders encompassed by the Knollenberg restriction in EPA's appropriations legislation. EPA believes it is a reasonable interpretation that this language covers only domestic regulatory activity; domestic regulations are, in fact, the only kind of "rules, regulations, decrees or orders" that EPA "propose[s] or issue[s]."

This interpretation of the Knollenberg restriction is supported by statements from the legislative history of the restriction as part of EPA's funding legislation. See, e.g., 144 Congressional Record 8425, 8434 (daily ed. July 17, 1998) (Statement of Senator Bond) ("Our only goal here is to prevent the issuance of Federal regulations designed solely for the purpose of Kyoto Protocol implementation.").

Further, as stated in President Clinton's signing statement accompanying the Consolidated Appropriations Act for Fiscal Year 2000 (which applies the same Knollenberg language to the State Department), the Administration construes this language so as not to detract from the Constitutional authority of the President "to engage in the many activities, both formal and informal, that constitute negotiations relating to climate change." Negotiation of the compliance-related elements and procedures referred to in the Kyoto Protocol clearly is one such activity.

Question 4. Some environmental groups contend that early action crediting would turn into a corporate windfall, rewarding companies for emission reductions they would make anyway under a business as usual scenario. Do you agree, or do you think a well designed early action program could motivate companies to make energy efficiency and carbon reduction investments they would not otherwise make?

Response. EPA believes that a well designed early action program could motivate companies to make greenhouse gas reductions they would not otherwise make. Careful design of baseline requirements is critical to ensure that such a program would provide incentives for companies to take actions above and beyond those that would be taken under business as usual. A well designed program would have to balance the need for good baselines, monitoring, and verification with reasonable transaction costs.

Question 5. On January 13, 2000, EPA hosted a stakeholders' meeting to examine ways of reforming the New Source Review (NSR) program. One proposal, developed by the Clean Energy Group and distributed by EPA to all the stakeholders, would allow companies to opt out of NRS technology-based requirements if they agree to participate in a "voluntary" cap and trade program for multiple air "pollutants," including CO₂. Does EPA support this proposal? Do you agree that it is a misnomer to describe such an alternative as "voluntary," when all the reform would do is give companies a second regulatory option? Also, wouldn't this second regulatory option allow EPA to do something it has never done to date, namely, regulate emissions of CO₂?

Response. EPA has made no commitment to any system such as the Clean Energy Group ("CEG") is proposing. EPA is just beginning its consideration of options such as the one suggested by CEG and the Agency believes that there are a number of questions that must be addressed in the development of such a concept, including whether or not to allow trading between affected sources.

For your reference, I am attaching a February 29, 2000 letter from Gary S. Guzy, EPA General Counsel, to Congressman McIntosh that responds to his questions on the CEG proposal (see response to questions 5 and 6). The response to Question 6 from Congressman McIntosh also responds to your question of whether the CEG proposal would establish a system that could be considered "voluntary." As stated

by Mr. Guzy, “a system that cannot apply to a source unless the source volunteers to have it apply is plainly voluntary.”

You have also asked whether the CEG proposal would “allow EPA to do something it has never done to date, namely, regulate emissions of CO₂.” As stated in the February 29 letter from Mr. Guzy, EPA has not formed a legal opinion on whether the utility sector emission reduction program suggested by the Clean Energy Group could be implemented without amending the Clean Air Act. At a minimum, the issue of legal interpretation raised by your question would have to be addressed in a notice-and-comment rulemaking, which would be required in order to take action on the CEG alternative, and there would be a full opportunity for public participation and Congressional scrutiny.

Question 6. Please provide a detailed description (identifying the EPA program) for all grants, contract funding, or assistance (technical or resources, including personnel) provided to the web site smartgrowth.org, for both past and current fiscal years as well as planned for the fiscal year 2001 budget cycle.

Response. The Smart Growth Network is a voluntary partnership program of 24 government and non-government organizations, including those representing architects, planners, local governments, developers, environmental groups, citizens and a State government. The Network is a resource to inform development decisions with best practices, policy innovation, technical assistance, and research on the impacts of development alternatives. The home page of the Smart Growth Network (www.smartgrowth.org) provides the public (avg. 200,000 visits per month) and the more than 600 organizational and individual network members of the Smart Growth Network with access to: 1) research, news, case studies, tools, etc; 2) information on Network partners, activities and partner programs; and 3) best practices and policy innovations.

The Smart Growth Network web site is a cooperative effort between CONCERN, Inc. and the EPA, each of whom are partners in the Smart Growth Network (SGN). This partnership is formalized in a cooperative agreement, a vehicle meant to support cooperation between the EPA and external organizations. Through the cooperative agreement, EPA has provided approximately \$281,000 over 4 years in total funding from April 1996 through December 1999 to CONCERN, Inc. for website development and maintenance. Current year and budget year amounts have not yet been determined. Historical amounts are shown in the table below.

Fiscal year	1996	1997	998	1999	2000	2001
Amount*	\$55,000	\$127,000	\$45,000	\$58,000	To be determined	To be determined

* Note: dollar amounts are estimates web activities are a subset of a larger cooperative agreement.

EPA has committed to Congress that we will compete all of our new grants and cooperative agreements. We have not yet completed the competition for this activity for this year, and do not yet know how much funding will be allocated for either fiscal year 2000 or 2001.

In addition to providing a vehicle for funding the cooperative agreement spells out the terms and conditions of collaboration. Substantive involvement on the part of the Agency is a basic requirement of all cooperative agreements.

As part of the Agency’s substantive involvement in this cooperative agreement, EPA has agreed to provide materials on smart growth—tools, research, links, events, news items—for possible inclusion on the smart growth network web site. There are no dedicated staff performing this function, but we do have a project officer for this cooperative agreement. Among his many duties, he helps to ensure that EPA’s responsibilities as described in the cooperative agreement, are carried out.

Question 7. In addition, please provide the same information for any additional websites supported by the EPA through grants, contracts, or assistance (technical or resources, including personnel). For the purposes of this question please provide the information for fiscal years fiscal year 1995 through fiscal year 2001.

Response. EPA uses contracts to procure technical support for developing and maintaining webpages for various offices within the Agency. EPA does not award contracts to support a contractor’s own webpages.

For the past 6 years EPA has provided grants and technical assistance in support of the following websites:

EPA Program Office: Region 9

U.S.-Mexican Border Environmental Information Project
 Website: www.borderecoweb.sdsu.edu—Border EcoWeb

EPA Program Office: Office of Transportation and Air Quality, Office of Mobile Sources

Grantee: Colorado School of Mines
CX827973-01-0
Website: www.smogtestlog.org

EPA Program Office: Office of Communication, Education and Media Relations, Office of Environmental Education

Website: <http://www.nceet.snre.umich.edu/index.html>—EE Link

EPA Program Office: Region 6

Texas/Mexico Borderlands Data and Information Center

Region 6: <http://www.bic.state.tx.us/bicmain.html>

Rio Grande Alliance Home Page

Region 6: <http://www.riogrande.org>

U.S.-Mexico Border Geospatial Data Directory

Region 6: <http://us-mex-border-dir.unm.edu>

P2 RX (at Univ. of Texas-El Paso)

Region 6: <http://www.p2.utep.edu>

EPA Program Office: Region 10 Solid Waste, Product Stewardship

Project: Medical Industry Round Table

Website: <http://dnr.metrokc.gov/swd/bizprog/waste-pre/medical.htm>
Fiscal year 1999

EPA Program Office: Office of Air and Radiation,

Office of Transportation and Air Quality, Transportation and Regional Programs Division, Transportation and Market Incentives Group
American Management Association for the Commuter Choice Initiative
Website: COMMUTERCHOICE.COM
Fiscal year 1999—plan to continue funding this fiscal year

EPA Program Office: Office of Air and Radiation, Office of Atmospheric Programs
Ruminant Livestock Efficiency Program, managed by Virginia Tech,

<http://www.isis.vt.edu/dss/plms/index.html> (CX 826579-01-0)

<http://www.ext.vt.edu/cowcalf/> (CX 826568-01-1)

<http://hes.lbl.gov/HES/>

EPA Program Office: USEPA Great Lakes National Program Office

Great Lakes Information Network Project.

Recipient of the cooperative agreement: Great Lakes Commission, US EPA was but one of numerous partners in this cooperative

Website: <http://great-lakes.net/>

Fiscal year: 1995

Project Title: Expanding the Great Lakes Information Network by Strengthening Connections for Great Lakes Ecosystem Management

Grant ID: GL 995708

Fiscal year: 1997

Project Title: Online Spatial Data Sharing and Integrated Mapping—Great Lakes GIS Online

Grant ID: GL97022

EPA Contact: Pranas Pranckevicius

EPA Program Office: Office of Environmental Information

EPA Project: Environmental Monitoring for Public Access and Community Tracking (EMPACT)

Grantee: City of Las Vegas and Clark County.

Website: www.epmact-lv.org

Fiscal years 1998-2001.

EPA Program Office: Region 6

Grantee: City of Houston Brownfields

Website: <http://www.gcr1.com/brownfields/>

The following submissions contain mostly grant information and reference only a few actual websites:

EPA Program Office: Office of Ground Water and Drinking Water, Source Water Assessment Programs

Grants were given to help States develop (or add to existing) web sites where they could post their (drinking water) Source Water Assessment Programs:

		Dollars (thousands)
Georgia	Web site development (partial)	\$20K
Montana State University	On line discussion group (partial)	\$10K
Florida	Web site development (partial)	\$9K
Massachusetts	Web site development	\$2K
New Hampshire	Web site development	\$2K
Rhode Island	Web site development	\$2K
Vermont	Web site development	\$2K
New York	Web site development	\$1.5K
West Virginia	Web site development	\$3K
Mississippi	Web site development	\$3K
Oklahoma	Web site development	\$7.5K
Colorado	Web site development	\$2K
Montana	Web site development	\$2K
Wyoming	Web site development	\$2K
Hawaii	Web site development	\$3K
Alaska	Web site development	\$4.5K
Oregon	Web Site development	\$4.5K
Drinking Water Source Assessment	larger grants to associations.	
New England Interstate Water Pollution Control Commission/ Ground Water Protection Council/ Association of State Drinking Water Administrators.	Source water list serve (partial).	
Interstate Council on Water Policy ..	Interstate web site (partial)	\$25K
Lehigh Valley Water Suppliers, Inc ..	create an educational drinking water web site that includes links to each of the member suppliers' Consumer Confidence Reports (www.lvwater.org).	\$28,631

EPA Program Office: Region 4

Environmental Education Grant:

Fiscal year 1998 Walton County (GA) Board of Education, environmental education grant, Composting and Recycling.

Fiscal year 1996 University of North Carolina Wilmington, Project University and Schools (US)

EPA Program Office: Office of International Activities

1. Cooperative Agreement with San Diego State University

Amount—\$300,000.

Agreement number: X999813-01-0.

2. Grant to Environmental Education Exchange.

Amount—\$55,000

Agreement number: X 826001-01-01.

3. Cooperative Agreement with The Alliance to End Childhood Lead Poisoning

Amount—\$400,000

<http://www.globalleadnet.org/>

Agreement number: CX826748-01-0 [NOTE: This agreement was the result of a Congressional pass-through]

EPA Program Office: Region 6

Web Site Development Maintenance Projects

GRANT NUMBER	GRANT NAME	FUNDED
CD-996397-01-0	Implement an Internet-Based Network to facilitate the acquisition, use, and exchange of wetlands information.	104(b)(3)
CD-996400-01-0	Wetlands training workshops for Extension staff, landowners and land managers.	104(b)(3)
CD-996563-01-0	Wetland Education Information Resources and Workshops for Landowners and Land Managers.	104(b)(3)
CD-996944-01-0	Enhanced Wetland Protection through Monitoring and Enforcement of Compliance with Conditions of Coastal Use Permit.	104(b)(3)

Web Site Development Maintenance Projects—Continued

GRANT NUMBER	GRANT NAME	FUNDED
CD-986222-01-0	Development of Internet Wetlands Data base and Participation in Development of Wetlands Education Center.	104(b)(3)
CD-986233-01-0	Wetlands Environmental Education and Community Outreach Project	104(b)(3)
1CD-996939-01-0	Still water Creek Wetlands Demo Project; Deep Fork Assessment; Inter-agency Co-op; Aquatic Plan manual; and Worldwide Web Site for Oklahoma.	104(b)(3)
X-996367-01-0	Watershed Planner	104(b)(3)
X-996369-01-0	Rio Grande Alliance	104(b)(3)
X-996097-01-0	Web Development and Implementation	104(b)(3)
X-986108-01-0	Sabal Palm Grove Binational and Bilingual Education Program	Misc. 104
I-006350-99-0	Ground Water Data Base for Contamination Incidents	106
I-006350-00-0	Ground Water Data Base and Outreach Website Maintenance	106
I-006350-00-0	Wellhead Protection Website	106
I-006642-97	Development/update a Web site	106
C9-996102-06-0	Project for Web Development	319
C9-996102-07-0	Implementation for NPS Program	319
C9-996236-03	Update & maintain TSSWCB Website, to contain list of 319 projects	319
C9-996260-05	Tex*A* Syst-Ground Water protection project for land owners, information available on a TAES website.	319
C9-996146-03	Educational Outreach to Teachers—information from the training session on TNRC website.	319
C9-996146-03	Hamshire-Fannett Constructed Wetlands	319
C9-996146-04	Nonpoint Source Handbook (NCTCG)	319
C9-996146-04	Texas Witch Volunteer Monitoring—website use for general info about TX Watch and transmittal of water quality data.	319
C9-996146-05	Alternative onsite treatment—information on website	319
C9-996146-05	Nonpoint source protection through enforcement, adoption of city ordinances, information on city website.	319
C9-996146-06	Big Cypress TMDL	319
C9-996146-06	E.V. Spence TMDL	319
C9-996146-06	Salado Creek TMDL	319

Question 8. As the author of S. 880 which was signed into law last year, I am very concerned about the security aspects of the implementation of the legislation. I understand your Agency is poised to issue a Site Security Chemical Alert. Last month I requested a list of all Federal employees who reviewed the technical aspects of the alert, which I have yet to receive. Before you issue the Alert, please provide me with the list.

Response. I am pleased to say that the Agency responded to the initial request by forwarding a list to your staff some weeks ago. Following is a copy of the information we provided.

External Reviewing Group

Chemical Manufacturers Association (CMA)
 American Petroleum Institute
 The Chlorine Institute
 Synthetic Organic Chemical Manufacturers Association, Inc.
 Texas Department of Health
 Oklahoma Department of Environmental Quality
 International Association of Refrigerated Warehouses
 National Association of Chemical Distributors

EPA Reviewing Group

Office of Solid Waste and Emergency Response; Chemical Emergency Preparedness and Prevention Office.

Contact: James Makris, Office Director, Tel. (202) 260-8600

Office of General Counsel

Contact: Alan Eckert, Associate General Counsel, Tel. (202)564-5606

Office of Enforcement and Compliance Assurance

Contact: David Nielsen, Director RCRA Enforcement Division,
 Tel. (202) 564-4067

EPA Regional Offices

Region 6—Superfund Division

Contact: Myron Knudson, Director, Tel. (214)665-6701

Region 8—Office of Ecosystems Protection and Remediation

Contact: Max Dodson, Assistant Regional Administrator, Tel. (303)312-6598

Question 9. Recently the GAO has criticized EPA's management of their Internet data. Considering the importance of the risk management information, how are you addressing the public access aspect of the pending regulations in light of the GAO's concerns?

Response. The Agency is taking action to address GAO's concerns regarding our management of Internet data. We have assessed the issues and are managing the security risks, enhancing our hardware, software, and procedures to reflect state-of-the-art technologies. Further, EPA has been working closely with the Department of Justice (DOJ) and the Office of Management and Budget on public access to the risk management information collected under Section 112r of the Clean Air Act. EPA and DOJ will soon propose a rule that provides for limited public access while providing significant safeguards for the data. The data base itself will not be available over the Internet. As provided under P.L. 106-40, the offsite consequence information of risk management plans is exempted from the Freedom of Information Act until August 5, 2000, while the provisions for limited public access are being formulated.

Question 10. This July, the EPA is scheduled to begin designating nonattainment areas for the 8-hour ozone standard which has been placed on hold by the courts. Currently, which cities does the EPA believe will be designated nonattainment?

Response. EPA does not now know which areas of the country will be designated as "nonattainment" for the 8-hour ozone standard. Designations (including the geographic area covered by a designation) will be based on recommendations from States and Tribes, but EPA could make changes that it finds are appropriate to State recommendations as needed. Under the Clean Air Act, we can not make changes until after a 120-day consultation process with each affected State has been completed.

In preparation for the 8-hour designations, last summer EPA asked all States to submit their most current air quality data. We are now updating this information with more recent measurements and will soon ask States to make their initial designation recommendations. EPA will soon be issuing further guidance on the designation process, timing and boundaries.

Question 11. Due to the NAAQS court decision, States will not be updating their SIPs to reflect 8-hour designations. What will the highway funding effect be on cities and States with 8-hour nonattainment designations, both timing and sanctions-wise?

Response. When EPA final designations are effective, the transportation conformity rule begins to apply. Specifically, that means that highway or transit projects must be part of a transportation plan that the Department of Transportation (DOT) has found to conform with air quality goals before DOT can fund or approve new projects. Projects that DOT has already committed to fund for construction would not be affected. Also, some projects are completely exempt from conformity, such as safety and maintenance projects.

A nonattainment designation does not trigger highway sanctions. Highway sanctions would not come into effect until such time as a State fails to submit a required nonattainment State implementation plan (SIP) for its new 8-hour ozone standard. Even then, EPA must propose a sanction after a State's "failure to submit" or SIP disapproval and there is an 18-month "clock" that must expire before a sanction will be in place.

Question 12. Last year I asked for specific examples of programs which would be eligible for grants under the Clean Air Partnership Trust, after a year's reflection on the program could you please provide a more detailed explanation for the types of programs and grants expected if the program is enacted.

Response. President Clinton's fiscal year 2001 budget proposes a new \$85 million Clean Air Partnership Fund. The Fund will provide an opportunity for cities, States and tribes to partner with the private sector, the Federal Government and each other to provide healthy clean air to local citizens. The Fund will demonstrate smart multi-pollutant strategies that reduce air toxics, soot, smog, and greenhouse gases.

The Clean Air Partnership Fund will provide critical startup capital for innovative financing of local air pollution reduction and energy efficiency projects. The attached document, "Clean Air Partnership Fund: Example Demonstration Projects & Programs" provides specific examples of the types of programs that will be encouraged by using the Fund as an initial source of capital and as a magnet for creative partnership proposals. Also attached for your information are three additional docu-

ments that further describe EPA's initial thoughts on the program's design framework, examples of potential demonstration projects and programs, and frequently asked questions concerning the Fund.

Municipal Energy Efficiency Investments

The City of Phoenix, Arizona, with a population of 972,000, established a revolving fund to encourage energy efficiency in municipal buildings. It started the Energy Conservation Savings Reinvestment Plan in 1984 with \$50,000 seed money from State oil overcharge funds. Each year, Phoenix reinvested half of all documented energy savings in the Plan. By 1986, annual energy savings were over \$1 million, capping off the Plan at its maximum allowable limit of \$500,000 a year.¹ The Plan has financed retrofits which resulted in \$18 million of audited savings from 1978 to 1992. Accrued projected savings from 1978 to 2002 are expected to total \$42.6 million.

In 1983, the School District of Philadelphia, embarked on an incentive based energy conservation program which has resulted in a 10-year savings of \$45 million. Faced with budget constraints, district personnel looked at the then \$33 million energy budget as a potential resource.²

With the cooperation of all departments, program guidelines were established that provided a financial incentive to any school that could show a savings on its annual—averaged over past 3 years—energy bills. The savings were divided with 40 percent going back to the school, 40 percent to the district and 20 percent earmarked for investment by the district in energy saving projects. By the end of the first year, district wide savings were \$3 million, with two-thirds of schools showing savings. Twenty-five percent of the rebates to schools are to be spent on benefiting school maintenance staff, to reward their contribution and ensure their cooperation.

Energy Service Contracts

An energy service company, CES/Way International, carried out a turnkey performance contract to retrofit seven municipal buildings in Jefferson County, Kentucky, U.S.A. The \$2.5 million project included boiler, air infiltration, HVAC control and lighting retrofits, monitoring, and training of building operators. CES/WAY International also arranged funding and guaranteed the energy savings would be sufficient to repay the debt. After the debt payment, the ESCO split the remaining energy savings with the County in a standard "shared savings" arrangement. Annual energy savings were \$530,000 in 1992, about 20 percent of the investment.³

Lease Purchase Agreements

The City of Buffalo, New York recently used tax exempt municipal lease purchase financing, provided by Oppenheimer & Co., Inc., to retrofit 55 City facilities. Total project cost was approximately \$3.5 million, \$1.2 million of which was available as incentives from the local electric utility Niagara Mohawk. Total 15-year benefits to Buffalo will be in excess of \$6,100,000. Energy saving measures implemented included energy efficient lighting, high efficiency motors, HVAC upgrades, programmable building controls and controllers on ice rink brine pumps.⁴

State Bond Sales

The sale of over \$12 million in "energy conservation bonds" is financing the retrofit of office buildings, hospitals, and schools owned by State agencies in Iowa. The State of Iowa Facilities Improvement Corporation (SIFIC) uses the bond proceeds to pay for the installation of energy efficient equipment. The bond proceeds support a wide range of energy management improvements. Energy improvements installed to date in State-owned facilities total \$19 million, and are saving the State \$3.4 million a year.⁵

State Revolving Loan Program

The Texas LoanSTAR program is Texas' own program designed to "Save Taxes And Resources" by monitoring energy use and recommending energy-saving retrofits. In 1988, the Texas Governor's Energy Office (now known as the State Energy Conservation Office) received approval from the U. S. Department of Energy to establish a statewide retrofit demonstration program. The initial capital came from oil overcharge funds. The LoanSTAR program is designed to demonstrate commercially available, energy efficient, retrofit technologies and techniques. LoanSTAR has al-

¹ International Council for Local Environmental Initiatives (ICLEI), 1998.

² ICLEI, 1998.

³ ICLEI

⁴ ICLEI

⁵ ICLEI

ready generated \$62 million in savings (as of August 1998) for Texas taxpayers, and the program is projected to save another \$250 million over the next 20 years.

State agencies, such as schools and public buildings, may apply for loans to make recommended retrofits. Participants must repay the loans in 4 years or less based on estimated energy savings. In most cases repayment is made from savings generated by the cost-effective retrofit measures. Once the loans are repaid, the savings are available for the agencies.

Savings-generating retrofits to buildings include installing variable speed pumps and variable air volume systems, upgrading heating and air conditioning systems, and installing high efficiency chillers, energy management control systems, high efficiency lighting systems and thermal storage systems.⁶

Transportation Air Pollution Investments

Clean-Fuel Taxi Cabs

Funding from several sources (DOE, California and South Coast Air Quality Mgmt. District) combined to reduce the cost of purchasing an alternative-fueled taxi cab from \$27,000 to \$21,000. Each CNG fueled cab reduced on average HC by 6,300 lbs/year and NO_x by over 11,000 lbs/year. The Clean Air Partnership Fund could provide initial capital to attract such matching funds.⁷

Clean-Fuel Fork Lifts

By converting 36 of 96 forklifts to natural gas, an airport facilities company demonstrated fuel cost savings of \$10,000 in the first year. Conversion expenses were \$1,200 per vehicle. CO, HC, NO_x and CO₂ emissions were reduced an estimated 90 percent, 70 percent, 50 percent, and 10 percent respectively.⁸

Electric Buses

Converting diesel buses to electric buses results in virtually zero tailpipe emissions. Air toxics, soot and smog are all reduced. Chattanooga Area Regional Transportation Authority has converted 16 of 81 vehicles to electricity at a cost of \$160,000 to \$180,000 for 22- and 31-ft electric buses. Fuel costs ranged from \$0.04 to \$0.05/mile for electric compared to \$0.16/mile for diesel. Maintenance costs ranged from \$0.04 to \$0.075/mile for electric and \$0.185/mile for diesel. The initial capital costs of the bus conversions can be offset by fuel and operating cost savings.⁹

Residential and Commercial Energy Consumption

Solar Water Heaters

Replacing an average home electric water heater with a solar water heater would prevent 26 pounds of NO_x and 40 pounds of SO₂ on average annually. It would also reduce 7,600 pounds of CO₂ annually.¹⁰

Energy Efficient Lighting

In a commercial office building project, replacement of over 12,000 florescent T12 lamps with energy-efficient T8s with electronic ballasts prevented over 2.5 million pounds/year of CO₂, and over 3 million g/year of SO₂ and NO_x. This reduced electricity consumption by 43 percent and saved over \$100,000 per year.

Renewable Energy Sources

Wind Turbines

A 10-MW wind farm would annually displace 23,000 tons of CO₂, 123 tons of SO₂ and 80 tons of NO_x.¹¹

Fuel Cells

Fuel cells emit about 1/250th as much NO_x per unit of electricity generated as that from a conventional power plant.¹²

⁶Texas Loan STAR Program, 1998.

⁷"Spotlight on Niche Markets—Taxis Are Changing to AFVs," *Alternative Fuel News*, Department of Energy, Vol. 2, No. 5.

⁸Case Studies on Cost-Effective Forklift Truck Fleets. Gas Research Institute, May 1, 1996.

⁹Electric Buses Energize Downtown Chattanooga. Argonne National Lab, Department of Energy, August 1, 1997.

¹⁰"Reducing Greenhouse Gases and Air Pollution: A Menu of Harmonized Options. Preliminary Findings, November 1998. State and Territorial Air Pollution Program Administrators (STAPPA) and Association of Local Air Pollution Control Officials (ALAPCO).

¹¹STAPPA-ALAPCO, 1998.

¹²STAPPA-ALAPCO, 1998.

Municipal Landfill Emissions as Energy Source

Private developers use gas collected from a Raleigh, NC city owned landfill to fuel boilers, thus reducing GHG and conventional pollutants. The facility eliminates the methane emissions of the landfill avoids the emissions at the utility that provided the original supply of electricity. City of Raleigh receives royalties of \$65,000–\$75,000 per year.¹³

The South Davis County Sewer Improvement District operates a cogeneration project that burns methane from sewage sludge processing, thus virtually eliminating the methane emissions and avoids the emissions at the utility that provided the original supply of electricity. The system saves \$5,000 per month on utility bills for the District and provides 75 percent of the facilities electricity and all of its heating needs.¹⁴

Municipal Cogeneration Facilities

Trenton, NJ partnered with a private company to build and operate a cogeneration facility to avoid paying all the construction and maintenance costs itself. The private company keeps the electricity sales revenues. The cogeneration facility reduces oil and gas consumption by nearly 50 percent avoiding emissions of 33,000 pounds/year of particulates.

A new \$52 million wood-fired combined heat and power system is to be built in St. Paul, Minnesota. The plant will provide 25 megawatts of electricity to Northern States Power—enough to supply electricity to 20,000 homes and heat to 450 downtown St. Paul commercial customers. A substantial portion of the wood waste to fire the system will come from downed trees, trimmings and branches from the Twin Cities area.

The project will significantly reduce air pollution by displacing 110,000 tons of coal that are presently burned every year, with wood waste. This will reduce sulfur dioxide emission by roughly 600 tons per year and reduce fossil fuel derived carbon dioxide emissions by roughly 280,000 tons per year. The power plant can operate at more than double the efficiency of conventional electricity-only power plants, resulting in twice the useful end-energy for the same raw energy input.¹⁵

CLEAN AIR PARTNERSHIP FUND EXAMPLE DEMONSTRATION PROJECTS & PROGRAMS

President Clinton's fiscal year 2001 budget proposes a new \$85 million Clean Air Partnership Fund. The Fund will provide an opportunity for cities, States and tribes to partner with the private sector, the Federal Government and each other to demonstrate innovative approaches to providing healthy clean air to local citizens. The Fund will support grants to demonstrate smart multi-pollutant strategies that reduce air toxics, soot, smog, and greenhouse gases to protect our climate and our health.

The Clean Air Partnership Fund will provide critical startup capital for innovative financing of local air pollution reduction and energy efficiency projects. Demonstration projects in the following areas, among others, will be encouraged by using the fund as an initial source of capital and as a magnet for creative partnership proposals.

Electric Ground Service Equipment: Airport conversion of ground service equipment to electric power could reduce NO_x, PM, and air toxic emissions and generate significant cost savings.

Ultra Low-NO_x Gas Fired Burners: Industrial furnaces and boilers in municipal and government owned buildings could apply ultra low-NO_x technology. New technology can produce low NO_x levels comparable to selective catalytic reduction technology at significantly lower costs.

Urban Air Toxics Monitoring: As cities develop their urban air toxics control strategies, the need for ambient air toxic monitoring information is increasing. The Fund could be used to promote improvements to the existing air toxics monitoring networks.

Cleaner Small Engines: New clean 2-stroke engines and alternative fuels for small consumer and commercial equipment will make significant advancements in traditionally uncontrolled sources of air pollution. The Clean Air Partnership Fund could establish programs to demonstrate these new cleaner engines in use at a local level.

Energy Efficiency Revolving Loan Funds: The Fund could provide start-up capital for State and local energy efficiency revolving loan investment programs. In Texas,

¹³ Department of Energy, Energy Solutions for Cities and Counties.

¹⁴ Department of Energy, Energy Solutions for Cities and Counties.

¹⁵ Trigen-Cinergy Solutions, January 8, 1999.

such a program (LoanSTAR) has generated \$62 million in savings (as of August 1998) for Texas taxpayers, and the program is projected to save another \$250 million over the next 20 years. State agencies could apply for loans to make recommended retrofits in schools and other public buildings.

Clean-Fuel Taxi Cabs: In California, funding from several sources (DOE, California and South Coast Air Quality Mgmt. District) combined to reduce the cost of purchasing an alternative-fueled taxi cab from \$27,000 to \$21,000. Each CNG fueled cab reduced on average 6,300 lbs/year of HC and NO_x by over 11,000 lbs/year. The Clean Air Partnership Fund could provide initial capital to attract matching funds in order to reduce the cost of purchasing an alternative fueled taxi cab and thus expand the presence of clean-fuel fleets.

Solar Water Heaters: Replacing an average home electric water heater with a solar water heater would prevent 26 pounds of NO and 40 pounds of SO₂ on average annually. It would also reduce 7,600 pounds of CO₂ annually.

Energy Efficient Lighting: In a municipal office building project, replacement of over 12,000 fluorescent lamps with energy-efficient lights prevented over 2.5 million pounds/year of CO₂, and over 100,000 pounds/year of SO₂ and NO_x. This reduced electricity consumption by 43 percent and saved over \$100,000 per year. The Partnership Fund could demonstrate new innovative applications of energy efficient technology.

U.S. EPA CLEAN AIR PARTNERSHIP FUND DRAFT PROGRAM DESIGN FRAMEWORK

Introduction

This Clean Air Partnership Fund draft program design framework is being prepared and distributed to solicit suggestions from all parties. Please contact Keith Mason (202-564-1678) in EPA's Office of Air and Radiation with comments or questions. A final Clean Air Partnership Fund program design will be contained in the solicitation for proposals and accompanying guidance that will be developed and distributed at a later date.

Statutory Authority

The CAPF will operate as an EPA grant program under Section 103 of the Clean Air Act which authorizes EPA to issue demonstration grants.

Eligible Grant Recipients

The Fund will provide grants to local, State and tribal governments, and to multi-governmental organizations, specifically: Government agencies and organizations at the State, city, and county levels Tribal government agencies and organizations Regional and multi-governmental organizations whose members are from State, city, county and tribal agencies.

Selection Criteria for Project/Program Evaluation

EPA will use the following criteria in the evaluation of CAPF grant proposals:

Reduce multiple air pollutants. Projects or programs should reduce or prevent more than one kind of air pollutant. All classes and types of air pollutants are eligible including: NO_x, SO_x, SO₂, PM, VOCs, CO, lead, air toxics, ozone-depleting substances and greenhouse gases.

Demonstrate innovative programs or technologies which reduce or prevent multiple air pollutants.

Result in significant leveraging of Federal (CAPF) funds by:

- providing a minimum level of matching funds directly from the grant recipient (match percent to be determined)
- providing additional leveraging, as appropriate to the project or program, through one or more of the following mechanisms:—revolving loan funds;—bond guarantees;—tax incentives;—supplemental matching funds;—funding from private sources; and/or—others to be proposed by applicant and approved by EPA
- Transferability. Project should demonstrate the potential to replicate results and create benefits in other areas of the country.

Additional criteria will also be developed that address the role of partners and public participation. Criteria may also be developed that are specific to the types or categories of projects that are eligible, as appropriate, as part of the final Solicitation of Proposals and Guidance.

Eligible Projects & Programs

The CAPE will provide an initial source of funding for many types of demonstration projects or programs that include but are not limited to the following: air pollution control technologies or processes; air pollution prevention technologies or proc-

esses; retrofits or improvements that increase the energy efficiency and reduce associated air pollution of—commercial, industrial, municipal or residential buildings and facilities;—transportation systems or fleets;—industrial processes; or—existing pollution control technologies or systems power technologies using low or no-emitting resources as cleaner energy sources, such as renewable energy; financial mechanisms or other types of strategies that enable an eligible grant recipient to implement a number of demonstration projects.

Apportioning the CAPF

By size of grant—to make the CAPF accessible to as many entities as possible, different amounts of funding are apportioned to different sizes of programs or projects as follows:

Grant size	Amount of pool	Size range	No. of grants	percent of total
Large	\$20 million	\$2.5—\$5.0M each	4–8	25%
Medium	\$45 million	\$1.0—\$5.0M each	10–45	50%
Small	\$20 million	< \$1.0M each	20–100	25%

By EPA’s strategic air goals—EPA will review the set of final award decisions to ensure alignment with the Agency’s air goals, focusing at least 2/3 of the Fund on projects/programs that address criteria pollutants and 1/3 of the Fund on projects/programs that address air toxics and all projects/programs required to demonstrate significant co-benefit reductions of other categories of air pollutants such as greenhouse gases.

Project/Program Timeframe

- Projects or programs should minimize the time from proposal to project start-up.
- Projects or programs should be implemented within 1–3 years after the grant is awarded.

Grant Evaluation & Selection Process

EPA will use a two-tiered process to evaluate proposals and select final grant awards.

- Tier 1 provides an initial screen of a project/program synopsis to see how well they meet a limited set of necessary selection criteria.
- Tier 2 provides a more in-depth evaluation of full proposals across all selection criteria for projects/programs that qualify based on the Tier 1 process.

EPA’s two-tier process for the CAPF comprises the following steps:

- EPA selects evaluation panels
- EPA sets parameters for Tier 1 and Tier 2 evaluations
- All applicants submit a 3–5 page synopsis of their proposals
- Panels evaluate proposal synopses using a pre-determined methodology
- Applicants that qualify based on Tier 1 evaluations develop and submit a full proposal
- EPA panels perform Tier 2 evaluations
- Final award decisions are made

Design Process & Timetable

Clean Air Partnership Fund Program Development Steps	Approximate Time Frame	Approximate Target Date
Gather information and stakeholder ideas & input	4–6 months	2/00–8/00
Develop draft program design options	2–5 months	4/00–9/00
Evaluate options and further develop guidance	2–5 months	8/00–1/01
Issue Solicitation of Proposals and Guidance, and provide outreach and training about guidance to States, locals and tribes.		2/01–4/01

CAPE Grant Proposal Calendar

Grant Project/Program Synopses Due	summer 2001
Full Grant Proposals Due	fall 2001

Final Selections Made winter 2001/2002

U.S. ENVIRONMENTAL PROTECTION AGENCY THE CLEAN AIR PARTNERSHIP FUND

Frequently Asked Questions March 20, 2000—draft

President Clinton's fiscal year 2001 budget proposes a new \$85 million Clean Air Partnership Fund. The Fund will provide an opportunity for cities, States and tribes to partner with the private sector, the Federal Government and each other to demonstrate innovative approaches to providing healthy clean air to local citizens. The Fund will support grants to demonstrate smart multi-pollutant strategies that reduce air toxics, soot, smog, and greenhouse gases to protect our climate and our health.

Why is the Clean Air Partnership Fund being created?

Cities, States and tribes face many air quality challenges in providing clean air to their residents. Localities and States must develop plans to meet health-based Federal air pollution standards for ozone and particulate matter (e.g., smog and soot). Some localities must form State plans to reduce emissions of NO_x to prevent the transportation of ozone from one region to another. Many urban areas are designing their urban air toxics reduction strategies. In addition, electric utility restructuring and visibility-degrading regional haze must be addressed by air quality planners. The Clean Air Partnership Fund is designed to help meet these existing clean air needs in an integrated fashion.

Why is the Clean Air Partnership Fund unique?

Currently, businesses and municipalities often invest in short-term, single-pollutant control approaches. The Partnership will encourage many industries, such as electric utilities and the transportation sector, to pursue comprehensive criteria pollutant reductions while improving energy and operational efficiencies, thereby also reducing air toxics and greenhouse gas emissions. Unique public-private partnerships could also result.

What types of projects will be financed by the Clean Air Partnership Fund?

The Clean Air Partnership Fund will support demonstration projects that: (1) control multiple air pollution problems simultaneously; (2) leverage the original Federal funds; (3) facilitate meaningful public involvement; and (4) provide innovative approaches to air pollution control that could be replicated in other cities and States.

- Partnership Funds could help provide startup capital for municipalities to establish programs to convert existing diesel fleets of school buses to cleaner fuels.
- Partnership Funds could help establish home energy efficiency investment loan funds. Reducing energy use in homes will reduce local soot, smog and air toxics and greenhouse gas emissions.
- Partnership Funds could be used to create incentives for cleaner electricity generation at utilities. Increased use of combined heat and power and natural gas combined-cycle electricity generation will yield criteria, air toxic and greenhouse gas emission reductions.
- Partnership Funds could support local revolving loan funds to finance energy efficient retrofits for local and State agency buildings, public schools, hospitals and private industry. The cost savings realized from lower energy bills would allow borrowers to repay the loans and provide an ongoing source of funding for future innovative investments.
- Partnership Funds could help support tax credits for innovative air pollution control technology investments.
- Partnership Funds could be used to stimulate demand for renewable sources of energy. Renewable energy sources such as fuel cells, photovoltaics, wind and geothermal provide ideal integrated air pollution control technologies.

Who is eligible for funds under the Clean Air Partnership Fund?

Entities eligible for grants through the Partnership Fund include local and State governments, tribes and multi-State organizations.

Special consideration will be given to locally based governmental projects that leverage resources in order to obtain early multi-pollutant benefits through innovative means.

How will EPA implement the program and select projects?

EPA will solicit ideas from all stakeholders for potential multi-pollutant projects and suggestions for program design. Shortly after Congress approves EPA's budget, EPA will prepare and release guidelines for proposals and the criteria for project selection.

How will the funding mechanism work?

Grants will be made to cities, States and tribes. These organizations could receive funds to carry out projects themselves or to set up programs which might fund other projects. It is expected that the Fund will support the development of local revolving funds, low-interest loan programs, matching funds, public-private partnerships, and other capitalization mechanisms.

What opportunities exist for harmonizing strategies to address multiple air pollution problems?

Many opportunities exist because air pollution sources usually contribute to more than one air pollution problem at a time. For example, reducing air pollution from the transportation sector by using cleaner fuels will help improve smog conditions, reduce particulate pollution, reduce hazardous air toxics as well as reduce greenhouse gas emissions. The same multiple pollutant reduction opportunities can be found in most sectors of our economy.

Question 13. Taking into consideration the recent promulgation of the Tier Two sulfur standards, what would the effect of an MTBE ban be on Refiners ability to provide needed octane enhancement to make up for the octane lost from desulfurization?

Response. During the course of the public comment period regarding the Tier Two sulfur standards, the Agency received comments on our proposed rule and the potential impact of a phase-down of MTBE use in gasoline. With growing public concern about MTBE and groundwater contamination, refiners can expect MTBE levels to be phased down or eliminated. We designed the gasoline sulfur control program to phase in over a number of years to allow refiners additional time to factor in their preferred method for MTBE phase down, should one occur. Gasoline desulfurization technologies do involve a small loss of either octane or gasoline production volume, losses which are similar to those resulting from a MTBE phase down. Refiners with fewer options available for making up the lost octane will likely select gasoline desulfurization technologies which minimize octane loss.

The phase in of the gasoline sulfur control program also spreads out the capital investments associated with gasoline desulfurization, facilitating to some degree the need for further investment associated with the MTBE phase down.

Question 14. Please identify in the budget (the change from fiscal year 2000 to fiscal year 2001) the resources to support the Refiner permitting changes required to address the desulfurization program in the Tier Two rule.

Response. There are no changes in the fiscal year 2001 budget request to support new source permitting changes that may result from the desulfurization requirements of the Tier Two rule. When the Agency took comments on the proposed rule, States did not identify an inability to meet the permitting schedule with their current assistance levels. In fact, States with some of the largest number of sources subject to Tier Two have indicated that all their permitting could be completed rather quickly, even as quickly as 6 months.

The Agency expects that the rule will require changes to only small parts of each of the 115 refineries nation-wide. These permit changes will occur over a 3-5 year period and will be assimilated into the base permit review load of the States affected. Therefore, States did not identify a need for additional funding assistance when they provided comment on the rule.

EPA is taking a number of steps all of which should help ensure that permit review and issuance is done as quickly as possible in order for refineries to meet the Tier II requirements. For example, we have formed an EPA Tier II permits team of experts to help States facilitate Tier II permitting. This includes representatives from each of the regions where refineries are located, as well as across EPA. Another example is the development of best available control technology (BACT) guidance that will be available for public review in the next week or two. This will assist permitting authorities by letting them know what EPA would likely accept as best available control technology for emission units that are subject to the New Source Review Program. That being said, this guidance would not preclude any specific State permitting decisions that would be made due to new information or site specific information that arises during the public comment period. A third example is that EPA will be making available assistance in dispute resolution to States, refineries and communities where environmental justice concerns are raised.

Question 15. Considering the Inhofe amendment to TEA-21 and the court decision regarding the NAAQS, to what extent is the EPA implementing the Regional Haze Rule? Are any aspects of the Regional Haze Rule on hold pending the implementation of the 8-hour standard?

Response. The TEA-21 legislation links the schedule for submittal of regional haze SIPs to the dates for designation of attainment, unclassifiable, and nonattainment areas for PM_{2.5}. EPA has requested that the Supreme Court review the decision by the Court of Appeals on the PM_{2.5} NAAQS, and expects to know within the next few months whether this request is to be granted. Despite the constitutional issues raised by the Court of Appeals, the Court did not vacate the PM_{2.5} standards. Accordingly, the schedule for regional haze SIPs remains linked to the PM_{2.5} designation schedule.

EPA is working on various planning activities to support future implementation of the regional haze rule by the States: development of technical tools and guidance; expansion of the IMPROVE visibility monitoring network; funding and work plan development for five regional planning bodies; and specific work with the Western Regional Air Partnership on an Annex to the recommendations of the Grand Canyon Visibility Transport Commission. We are not requiring any control strategies at this time to implement the PM_{2.5} standard or the regional haze program. EPA is also proceeding with its plans to complete a review of the PM_{2.5} standards by 2002. EPA will continue its work on the regional haze program in light of the future outcome of this review as well as the litigation on the PM_{2.5} NAAQS.

Regarding the 8-hour ozone standard, the regional haze rule does not depend on it for any aspect of program planning. Therefore, there are no aspects of the regional haze rule on hold pending its implementation.

Question 16. What is the legal authority for the Federal Land Managers' Air Quality Related Values Workgroup (FLAG AQRV)?

Response. The FLAG AQRV is not an EPA workgroup. This group is preparing guidance on how Federal land managers exercise their Clean Air Act mandated "affirmative responsibility" to protect the air quality related values (e.g., visibility, ozone impact to terrestrial resources, acidic deposition impacts to aquatic and terrestrial resources) in Federal Class I areas. The guidance is being developed to bring more predictability and uniformity to FLM participation in the new source review permit process. For information on the authority to convene this work group, we recommend that you contact the Federal land managers directly (U.S. Department of Interior—National Park Service, Air Quality Division, and U.S. Department of Agriculture—U.S. Forest Service).

Question 17. Page 27 of the FLAG Phase I report issued October 1999 states, "The FLAG recommendation is designed to prevent new sources from causing visibility impairment." Do FLAG AQRV standards affect legal rights and responsibilities of permit applicants?

Response. The recommendations by the FLAG do not affect the legal rights and responsibilities of permit applicants. Permit applicants are bound by the Clean Air Act and the applicable implementing regulations. Pursuant to the statute and these regulations, Federal Land Managers have the responsibility to identify AQRV's and protect them against adverse impacts. The work by the FLAG will promote more predictability in NSR permitting by providing more information up-front on the AQRV's in Class I areas.

Question 18. Please describe the procedures used to develop the FLAG AQRV standards, particularly in view of the Administrative Procedures Act. Please detail EPA's role in the process.

Response. Because the FLAG AQRV document is guidance that has been drafted by the National Park Service and the U.S. Forest Service, we recommend that you contact them for an explanation of the procedures followed in developing it. Regarding EPA's role in the process, EPA staff have reviewed and commented on drafts of the guidance.

Question 19. Please explain the public process aspect of the FLAG AQRV standard development.

Response. The Federal land managers drafting the FLAG AQRV guidance held a public hearing on the guidance in December 1999 and provided a public comment period as well. We recommend that you contact the National Park Service or U.S. Forest Service for more information on these issues.

Question 20. Was any cost-benefit study conducted on the FLAG AQRV standards? Is so, what were the results?

Response. It is our understanding that a cost-benefit study was not performed on this guidance. Because the FLAG AQRV guidance has been drafted by the National

Park Service and the U.S. Forest Service, we recommend that you contact them with questions about this issue.

RESPONSES BY CAROL BROWNER TO AN ADDITIONAL QUESTION FROM SENATOR LAUTENBERG

Brownfields

Question. Administrator Browner, although there was strong support for the work being done by EPA on Brownfields, there was some confusion in the hearing this week about the proposed overall funding level for the Brownfields program in the President's budget. Can you clarify whether the \$4m increase in the Brownfields State Revolving Loan Fund (to a total of \$41.1m) is within the overall budget of \$91.626m for Brownfields, which is approximately \$587m (sic) less than the fiscal year 2000 enacted level of \$92.215m, or represents an overall increase of approximately \$3.4 (\$4m less the reduction of \$587m) (sic), as was suggested?

Response. The \$4m increase in Brownfields Cleanup Revolving Loan Fund program is within the overall budget for Brownfields. It reflects a shift from assessment pilots to fund an increasing demand for cleanup assistance.

RESPONSES BY CAROL BROWNER TO ADDITIONAL QUESTIONS FROM SENATOR LIEBERMAN

Question 1. I am extremely concerned about the funding level for the Long Island Sound in the President's budget. Compared with other areas, the Sound gets only \$500,000 while other areas are receiving over \$19 million. The Long Island Sound is among the most complex estuaries in the National Estuary Program, and over 8 million people live within its watershed. Over the years, I have sought much stronger Federal funding of efforts to restore the Sound. Federal commitments to date have been minuscule compared with State and local funding. New York State approved \$200 million for Long Island Sound as part of a \$1.75 billion bond act. Connecticut has awarded more than \$200 million in the past 3 years to support upgrades at sewage treatment plants and implement other point and nonpoint controls. The Long Island Sound Office now faces a daunting task, orchestrating a multi-billion dollar effort to implement efforts to reduce nitrogen loadings that degrade the waters of the Sound.

To underfund the Long Island Sound program and cut overall SRF funding at a time when our States are attempting to implement goals stated as part of EPA's Clean Water Action Plan makes no sense to me.

How do you justify the extremely low numbers for programs to help New York and Connecticut clean up the Long Island Sound?

Response. The Long Island Sound Program is an outstanding example of local watershed management in general, and the National Estuary Program in particular. By bringing together numerous stakeholders from the region, the program has been able to identify specific problems and develop effective, workable, and widely accepted approaches for addressing them. The level of State support for the program by both New York and Connecticut reflects this success.

EPA is proud of the assistance we have provided to the States of Connecticut and New York to restore Long Island Sound. As part of the National Estuary Program (NEP), the Long Island Sound Program has received over \$18 million since 1985. None of the other 27 programs in the National Estuary Program have received as much funding through that program. As proposed in the President's fiscal year 2001 budget, the Long Island Sound Program is projected again to receive more funds than any other program in the NEP.

We recognize that the Long Island Sound has major problems that will be very costly to resolve. Yet, we must also note that all of the programs in the NEP, as well as many other watersheds, face different but often equally daunting tasks in restoring their watersheds. The cost of implementing management plans from all 28 of the NEPs has been estimated at \$50 billion. All the programs, including Long Island Sound, are encouraged to use other Federal, State, local, and private sources of funding to supplement the NEP-specific funding.

Question 2. Could you describe any initiatives included in the President's budget that address the use of pesticides in and around schools?

Response. One of our highest priorities is protecting children from unnecessary exposure to pesticides that are applied in their schools and homes to control pests. For some time now, EPA has instituted and engaged in activities designed to enhance children's protection from potentially harmful exposures to pesticides used in

schools. Activities, for example, include developing websites, training manuals, videos, and curricula; holding workshops; and providing school officials with information on pest management. Specifically, EPA is:

- encouraging school officials to reduce student exposure to pesticides used in schools, through distribution of EPA's brochure "Pest Control in the Schools Environment: Adopting Integrated Pest Management" (one million of these brochures have been distributed so far);
- developing education and training materials on Integrated Pest Management implementation in schools, through the Pesticide Environmental Stewardship Program. For example, a grant awarded to the Monroe County, Indiana, school system implemented a schools program as a pilot effort. Subsequently the school district received the Governor's Award for Pollution Prevention for a 92 percent reduction in pesticide use, and cost savings;
- providing funding to the American Mosquito Control Association to develop and distribute a board game to educate children on the mosquito life cycle and means of reducing mosquito reproduction;
- helping to sponsor internet sites, such as the University of Florida web site designed to assist schools and other organizations to develop pesticide stewardship programs; and a National Directory of IPM in Schools website created to assist individuals with finding specific information and State contacts for each State IPM program;
- working with the National Pest Management Association to develop the IPM for School Structures Certification Course which will further educate pest control applicators on safe and responsible use of pesticides in the school environment. Completion and implementation of this project is expected within the next 2 years.

An EPA workgroup is also assessing our current array of activities relating to pesticides in schools. The workgroup has and will continue to make recommendations on the adequacy and direction of current efforts and any key new work that should be considered.

Question 3. What steps has EPA taken to formalize its intention to conduct a full-scale statistical survey on the use of pesticides in schools to determine whether there are risks posed by pesticides to children through cumulative exposure?

Response. For some time now, EPA has been undertaking several initiatives to better understand children's exposure to pesticides used in schools. Since the early 1990's, EPA has been expanding ways to collect and evaluate residential pesticide exposure data to determine whether, and how, children are being exposed to pesticides in schools. EPA's Office of Research and Development (ORD) has developed a peer-reviewed draft "Strategy for Research on Environmental Risks to Children," that includes research to assess children's exposure to pesticides in residential and institutional settings.

EPA research efforts on children's exposure to pesticides used in residential settings started in 1996 under the auspices of ORD's Science to Achieve Results (STAR) Program. This program involves, among other things, conducting a series of field studies to gain accurate and precise measurements of children's exposure to toxic chemicals in the environment to ensure that we are conducting realistic health risk assessments for this vulnerable segment of the population. One such study is being conducted at the University of Minnesota, entitled "School-Based Study of Complex Environmental Exposures and Related Health Effects in Children." The study's objective is to characterize and document the exposure of 800 elementary school children from two low-income, racially diverse neighborhoods in Minneapolis to pesticides and other toxic chemicals. Using a combination of methods, the study team is monitoring the air in children's outdoor communities, schools, and residences to determine the extent of their exposure to pesticides, volatile organic chemicals, metals, environmental tobacco smoke, and other pollutants. The team is also evaluating the relationship between the amounts of pesticides measured in the air surrounding the children and the amounts of pesticides detected in their blood and urine. The team will compare the levels of children's exposures to these substances in a new school designed to enhance indoor air quality with the levels in an older school with more traditional architecture, mechanical systems, and furnishings.

Additionally, ORD is conducting a series of pilot studies in rural U.S. Mexico border communities to understand the risks to children from multiple pesticide exposures. Some of the pilot studies will document children's exposure to pesticides in school settings.

Question 4. As I'm sure you are aware, last fall communities in southwestern Connecticut and around New York experienced an outbreak of West Nile virus, a mosquito-borne virus that had never before been found in the western hemisphere. The

outbreak generated widespread concern throughout the region, not only about the immediate health threat from the virus, but also about the health impacts of the pesticides that were used to respond to the outbreak. At a December field hearing to address the disease, several experts testified that a recurrence of the disease is not only possible but is probable. In the wake of the outbreak last fall, I am particularly concerned about ensuring that States and especially local communities receive Federal help in balancing the risks of insect-borne diseases with the risks of responding to these diseases with pesticides. One aspect of improving abilities to balance these risks will be additional research and development of independent assessments of the human health effects and benefits of the use of pesticides such as malathion.

What role do you see the EPA playing in helping States and communities respond to future outbreaks of insect-borne disease? This is clearly an interdisciplinary issue involving public health and the environment. How should EPA and the Centers for Disease Control and Prevention coordinate assistance to State and local agencies and organizations?

Response. EPA is very concerned about the seriousness of threats to public health from outbreaks of insect-borne diseases such as the West Nile Virus. Consequently, we have important efforts underway to prepare for such eventualities in a number of ways.

- working with CDC on enhancement and better coordination of our efforts, and finding ways to support each other and State and local agencies in short and long range tasks.
- working with State lead agencies in developing prevention techniques, including increased monitoring, control of insect larvae, and encouraging citizens to help get rid of mosquito breeding grounds around their homes and property.
- expanding our efforts to grant priority status to registration of valuable public health pesticides.

EPA is committed to ensuring that pesticides meet strict safety standards and will take action against any pesticide found to pose a threat to public health. We are rigorously reviewing a group of the oldest pesticides in use today, the organophosphates, including malathion (which was used in spray programs last year), to be sure they can be used safely or to take action to protect public health if necessary.

EPA expects to release its preliminary risk assessment on malathion for public comment by the end of April. Concerns have been raised that malathion may be a carcinogen and since it is an organophosphate, it may cause neurological effects. The Agency has reviewed a wide array of scientific studies and information about these and other potential risks. Based on the exposure and risk analyses conducted to date, we believe that the potential risks from use of malathion in area-wide mosquito control programs are below the Agency's level of concern.

Officials responsible for mosquito control programs and the public should weigh the risks of these products against the risks to the general public from diseases transmitted by mosquitoes. The experience with the outbreak of West Nile Virus last year highlights the importance of implementing effective mosquito prevention programs, including the use of larvicides and reduction in breeding habitats, to reduce the potential need for use of chemicals such as malathion to control adult mosquitoes. Since no pesticide is 100 percent safe, we have advised pesticide applicators and the general public to always exercise caution and care and follow specified safety precautions during use to reduce potential risks. Mosquito prevention and control programs also should include public education efforts and full notification of the public regarding control efforts, including spraying.

RESPONSES BY CAROL BROWNER TO ADDITIONAL QUESTIONS FROM SENATOR THOMAS

Question 1. According to the National Water Quality Inventory reports, 40 percent of all waters surveyed by States do not meet water quality standards. The EPA states that agricultural practices were estimated to contribute to the impairment of over 25 percent of the Nation's waters.

Since not all States use credible data from water quality monitoring programs to assess water impairment problems, what funding has the EPA requested in the fiscal year 2001 budget to ensure that reports of water pollution problems are based on actual scientific data instead of non-quantitative or subjective estimates?

Response. EPA recognizes that State ambient monitoring activities have not always kept pace with the growing data needs to implement a holistic water resource management program. All of the resources EPA has requested for monitoring and

water quality data systems in the 2001 budget are intended to help improve water quality monitoring and reporting across the country.

EPA is concerned that a majority of waters have not been monitored. However, we believe States can take needed actions based on the data they have collected. It is not prudent to wait for a perfect data set on all waters before we initiate restoration activities on waters with known problems. In addition, some widespread kinds of water quality impairments can be identified without sophisticated measurements, such as nutrient over-enrichment and sedimentation. The later and more complex steps of quantifying the extent to which these pollutants exceed the assimilative capacity of a listed water and apportioning load reductions needs to occur when a TMDL is developed—which under our proposal may be as long as 15 years after listing.

We do agree that efforts to improve the quality and completeness of water quality data are very important. We are encouraged that the increased attention to water quality monitoring from the U.S. Congress, State legislatures, and the public will result in increased support for State monitoring programs. We strongly believe that decisionmaking and resource allocations will be better if the data supporting water protection and restoration needs are more complete and reliable.

The fiscal year 2001 budget includes two large increases, part of which can be used for monitoring at the States' discretion. A \$45 million increase for sec. 106 grants targeted specifically to State TMDL development is included. In addition, up to 20 percent of sec. 319 nonpoint source grant funds can be used for monitoring and assessment activities if the State chooses. A \$50 million increase is requested for sec. 319 grants for fiscal year 2001. Both of these funding sources would require that at least 40 percent of project costs come from non-Federal funds.

Question 2. In situations where water quality standards are not being met, the budget indicates it is the EPA's intention to work with States and tribes to improve implementation of total maximum daily loads (TMDLs). To support this effort, the Agency has requested an additional \$45 million in Section 106 State Pollution Control grants.

State Pollution Control Administrators have indicated to me that the EPA's \$45 million request to assist the States in developing TMDLs grossly under-estimates the burden being placed on States. Why has the EPA not made funding for nonpoint source efforts a priority, as the Agency has done with point sources?

Response. EPA has made NPS funding a priority in both the 2001 budget and prior budgets. In 2001, EPA has requested \$250 million for section 319 State NPS grants, an increase of \$50 million (25 percent) over 2000. In addition, the fiscal year 1999 and fiscal year 2000 budgets of \$200 million per year for section 319 State NPS grants represented a doubling (100 percent increase) of the prior 319 funding, reflecting EPA's commitment to increase resources and attention on NPS problems and solutions consistent with the Clean Water Action Plan. To further support State NPS implementation, EPA proposes allowing States to reserve up to 19 percent of their Clean Water State Revolving Fund capitalization grants to provide grants for implementing NPS and estuary management projects.

With its proposed State match, the requested Sec. 106 increase for TMDL development would provide \$75 million for these activities. States can also use up to 20 percent of sec. 319 grants for TMDLs. These Sec. 319 grants are increased by \$50 million in the fiscal year 2001 budget. With these increases, EPA believes States should have the resources to implement both the existing TMDL requirements and the incremental costs of the August 1999 proposed rule in 2001.

Question 3. With respect to the EPA's strategy for Confined Animal Feeding Operations (CAFOs), the budget states that the Agency estimates that all operations over 1,000 animal units will be issued permits in 2000. The budget further states all remaining CAFO permits are expected to be issued by the end of 2002.

Question 4. How does the EPA plan to meet this goal with the current NPDES permit backlog? Does the Agency intend to change its implementation dates?

Response. We plan to meet the goal of NPDES permit coverage for all large CAFOs in 2000 and all remaining CAFOs in 2002 by emphasizing the use of general NPDES permits for most CAFOs. General NPDES permits reduce the administrative burden on EPA and authorized State permitting authorities. Individual permits will be appropriate for only a small percentage of CAFOs, including operations that are exceptionally large, new, or undergoing significant expansion, or those that have historical compliance problems or pose significant environmental concerns. These individual permits are not expected to significantly increase the NPDES permit backlog. EPA does not intend to change its implementation dates.

Question 5. Is the EPA still considering lowering the NPDES threshold from 1,000 animal units to 300 animal units?

Response. Existing regulations provide for including some AFOs between 300–1000 animal units in the NPDES program if specific conditions are met. EPA has stated that States should give top priority to issuing permits to facilities with greater than 1000 animal units and address smaller facilities, if appropriate, starting in 2002. In developing revisions to permit regulations, EPA has evaluated options related to different animal units thresholds, but no decision has yet been reached.

RESPONSES BY CAROL BROWNER TO ADDITIONAL QUESTIONS FROM SENATOR VOINOVICH

Clean Water State Revolving Fund (SRF)

Question 1. The Administration's fiscal year 2001 budget proposes \$800 million for the Clean Water State Revolving Fund (SRF) program, a \$550 million decrease from the fiscal year 2000 enacted level of \$1.35 billion. With current water infrastructure needs estimated in the hundreds of billions of dollars, why has the Administration continued to shortchange the Clean Water SRF program by not asking for more funding?

Response. Financing for wastewater infrastructure has been, and will continue to be, a partnership between EPA, other Federal agencies, State governments, and local communities. By capitalizing the SRF such that it will be able to provide at least \$2 billion in financial assistance to local communities over the long run, the Agency is providing a substantial source of financing consistent with historic levels of Agency contribution. Over \$17 billion has already been provided to capitalize the CWSRF, more than twice the original Clean Water Act authorized level of \$8.4 billion. Total SRF funds available for loans since 1987 reflecting loan repayments, State match dollars, and other sources of funding are approximately \$30 billion, of which \$26 billion has been loaned to communities (\$4.2 billion was available for loans as of June 1999).

The Agency acknowledges that the preliminary needs estimates may be higher than previously estimated. Given that, and the fact that we now have a better understanding of the water quality challenges that States and local governments face, the Administration believes it would be useful to have a dialog with the Congress and the broad range of stakeholders on the future funding levels and project eligibilities of a reauthorized Clean Water SRF program.

The Administration is also committed to providing States with the flexible tools they need to best address their greatest remaining water quality challenges. Toward that end, the Administration's budget also provides new discretionary authority for States that would allow them to use up to 19 percent of their SRF allocation for grants, rather than loans, for nonpoint source and estuary management projects. This new authority will promote integrated priority setting at the State level and will allow for greater consideration of projects that may not otherwise be attractive candidates under an all loan program.

Question 2. The Administration proposes a \$50 million Great Lakes Initiative. Please clarify the criteria the Agency will use to determine which of the 31 Areas of Concern will be awarded grant money.

Response. EPA has not yet developed the specific criteria that would be used to make individual grant decisions among the Areas of Concern (AOCs). We are convening a cross-program Steering Committee to begin this process within the Agency and will finalize grant criteria after consultation with Congress, other Federal agencies including the Army Corps of Engineers, State and local governments, and other stakeholders.

Although we have not finalized criteria for awarding grants EPA does expect to apply certain guiding principles in allocating the funds, including: a commitment to "action oriented" projects that make real progress toward cleaning up AOCs; a preference for projects that use partnerships creatively and leverage other sources of funding (where available); and a 40 percent match in non-Federal funds.

EPA will consider various approaches to allocating funding. One approach that will be considered is to provide relatively large amounts of funding to a handful of AOC projects that are ready to initiate remedial actions in the field (e.g., dredging of contaminated sediments, installing stream buffers) and to offer moderate amounts of funding for projects in a larger number of AOCs for work that must be conducted before actual remedial actions can be taken (e.g., engineering studies prior to dredging or construction). This strategy would achieve tangible environmental benefits in selected AOCs that are ready to initiate field projects while enabling other AOCs to make further progress toward restoration.

Question 3. I believe the \$50 million for the Great Lakes Initiative would be better spent on completing one or two cleanup projects rather than dividing the money among several projects. Will the Agency give priority to those projects where the funding would make the most difference?

Response. On-the-ground projects that make meaningful progress toward AOC restoration will be one of EPA's top priorities in allocating grant funds. At this time the Agency cannot provide a specific number of projects that will be funded. The exact details of how the competitive grants will be awarded will need to be worked out in cooperation with Congress, States, municipalities, and other Great Lakes interests.

Question 4. What kind of projects are, included among the 31 Areas of Concern, eligible to compete for the Great Lakes Initiative grant program? Please provide background information and a status report on the 31 Areas of Concern.

Response. Under the Great Lakes Water Quality Agreement (GLWQA) between the United States and Canada, 43 Areas of Concern (AOCs) have been identified where significant impairments exist; 31 of the AOCs are wholly or partially the responsibility of the U.S. Impairments in the AOCs include restrictions on drinking water and fish consumption, fish or animal deformities, beach closings, and loss of wildlife habitat. Much work has been done over the years to limit point source discharges to the Great Lakes and to begin the complex task of assessing and restoring the AOCs. However, all AOCs remain impaired from sources of degradation such as contaminated lake sediments, storm sewer and combined sewer overflows, nonpoint source runoff, Superfund or other hazardous waste sites, and others. Initiative funds would address the impairments by supporting projects to clean up contaminated sediments, control stormwater, acquire buffers and greenways, and control polluted runoff. A status report on each AOC is available at <http://www.epa.gov/glnpo/aoc>.

Question 5. The Administration's budget request proposes a Great Lakes Initiative to clean up Areas of Concern around the Great Lakes. EPA's budget requests \$50 million for this initiative. How much does the Agency estimate it would cost to clean up the U.S. Areas of Concern?

Response. It is not possible to generate a reliable cost estimate for cleaning up the 31 U.S. or Binational Areas of Concern because all of the Remedial Actions Plans (RAPs) for the AOCs are not fully developed to include definitive cost estimates. Each AOC is faced with developing and implementing a RAP to address multiple use impairments (restrictions on fish and wildlife consumption; tainting of fish and wildlife flavor; degradation of fish wildlife populations; fish tumors or other deformities; bird or animal deformities or reproduction problems; degradation of benthos; restrictions on dredging activities; eutrophication or undesirable algae; restrictions on drinking water consumption, or taste and odor problems; beach closings; degradation of aesthetics; added costs to agriculture or industry; degradation of phytoplankton and zooplankton populations; and/or loss of fish and wildlife habitat). The RAPs are in various stages of development and implementation. RAPs do identify some of the immediate solutions and costs for specific remedial actions. For example, a common problem in each of the Areas of Concern is contaminated sediments. Addressing that problem alone in the Waukegan Harbor Area of Concern is estimated to cost \$21 million.

Question 6. Clearly, it would cost several times what the Administration has proposed to clean up the Areas of Concern around the Great Lakes. What does the Agency expect to achieve when it would cost so much to clean up these sites?

Response. We agree that completing the job of fully restoring all 31 AOCs would require much more funding. EPA believes that providing the requested funding targeted to AOC cleanup will enable important projects to go forward that will significantly improve the condition of affected AOCs. Benefits to AOCs could include reduced contaminant levels in water and fish tissue, restoration of habitat, reduction in the number of beach closings or fish advisories, reduced fish tumors and lesions, and others. This funding may also be a catalyst for additional public and private investments in needed cleanup projects. In short, the additional funding could accelerate by many years the cleanup progress in AOCs and lead to tangible improvements in the health of the Great Lakes.

Question 7. The last Clean Water Needs Survey came out in 1996. When will the Agency release the next survey?

Response. The next Clean Water Needs Survey Report to Congress will be the 2000 Survey, which EPA will begin to develop with a national kickoff meeting in March, 2000. We expect to provide the 2000 Survey to Congress by February 2002.

Question 8. What are the Administration's views on S. 1699, the Clean Water Infrastructure Financing Act?

Response. On October 7, 1999, Chuck Fox, Assistant Administrator for Water at EPA, provided testimony before the Senate Committee on Environment and Public Works on H.R. 2720, the counterpart to S. 1699. A copy of applicable testimony is provided in attachment I.

Question 9. The Administration's Great Lakes Initiative allows States and municipalities to compete for grants to improve water quality through stormwater pollution control, wetlands restoration and contaminated sediment remediation. Is EPA going to work with the Army Corps of Engineers to remove contaminated sediments from these sites?

Response. EPA and the U.S. Army Corps of Engineers collaborate closely on removal of contaminated sediments from the Great Lakes and will continue to do so on projects supported by these funds. The form that this collaboration takes varies depending on the nature of the activity and the respective roles of the two agencies. Possibilities include routine coordination and reviews for Clean Water Act 404 (dredge and fill) projects, coordination of Corps maintenance dredging with EPA/State remediation projects, coordination on activities related to numerous Water Resources Development Act authorities in the Great Lakes such as the Section 312 Environmental Dredging authority, and others.

Question 10. Regarding the Army Corps of Engineers Everglades restoration project, why is EPA not paying for the advanced wastewater treatment facilities?

Response. Generally, the costs of capital upgrades for wastewater treatment are eligible for loans under the Clean Water State Revolving Fund (SRF). It is important to note, however, that local communities typically are responsible for both repaying SRF loans and for covering the costs of annual operation/maintenance for treatment plants. Although projects like this are eligible, other sources of funding are necessary because Miami-Dade County is under no obligation to apply for loans or to improve treatment to a level suitable for Biscayne National Park or the Bird Drive-Everglades Basin wetlands. The purpose of the facilities is to provide clean freshwater to the environment during the dry season when the other restudy components will not have enough extra water available for the Biscayne Bay/Everglades restoration effort.

Government Performance

Question 11. In a report last year assessing EPA's fiscal year 2000 performance plan under the GPRA, GAO outlined several key weaknesses. Could you please indicate what the Agency has done to try to improve its performance and where the Agency has requested funding to help address these concerns?

Response. Since 1998, EPA has had an effort underway to improve the quality, availability, and measurability of its performance information as a basis for assessing progress in achieving annual and longer-term results. Specifically, the Office of the Chief Financial Officer has worked cooperatively with Agency program offices to develop more outcome-oriented annual performance goals and performance measures. GAO's 1999 evaluation of EPA's performance information shows progress in this area, identifying 26 percent of the Agency's fiscal year 2000 annual performance goals as intermediate and end outcomes. EPA is carrying out this effort as part of our core program responsibilities, and has not requested additional funding.

The Agency is also working to make improvements in our performance plans in response to weaknesses identified by GAO in its review of EPA's fiscal year 2000 Annual Performance Plan. While the Agency has not requested funding specifically to address the weaknesses outlined in GAO's report, EPA is making progress, as noted below, to more fully describe crosscutting efforts in cooperation with other Federal agencies and strengthen the credibility of performance information.

Question 12. EPA does not provide sufficient details on crosscutting goals and activities. GAO reports that the Agency did not completely describe how to coordinate with other Federal agencies that have related strategic or performance goals.

Response. Cross-cutting programs and activities are those undertaken by more than one agency to achieve a common purpose or objective. Since the Agency's fiscal year 1999 annual plan, the programs have worked to improve the information that is presented describing their activities to coordinate with other Federal agencies regarding those goals of mutual interest. EPA is working closely with other agencies in a variety of ways to coordinate involvement in national efforts. For example, EPA worked with the Department of Interior, National Park Service, to develop the regional haze program and deploy the visibility monitoring system. Also, for the mobile sources program outreach, EPA is collaborating with the Federal Highway Administration and the Federal Transit Administration of the Department of Transportation to educate the public about the effects of transportation choices on traffic congestion, air quality, and public health. These illustrate important efforts to

strengthen cooperation and understanding among agencies in achieving common goals.

In addition, OMB reinforces the importance of collaboration among Federal agencies toward the achievement of crosscutting goals in their review and clearance of products associated with GPRA implementation. This happens at various stages, but is especially important for formulation of the annual budget submission and performance plan.

Question 13. While EPA's performance plan provides a general discussion of strategies and resources to achieve its goals, it is silent on what steps the Agency proposes to mitigate the potential impact of external factors.

Response. EPA chose to identify and describe key external factors that could directly affect the achievement of goals for the fiscal year covered by its annual plan, although GPRA requires this only in the strategic plan. EPA's Strategic Plan also discusses external factors to the extent that they are likely to occur, consistent with OMB guidance. The Agency's discussion of external factors in both the annual and strategic plans helps provide a fuller context to consider both the challenges and opportunities EPA faces in achieving its annual and longer-term goals. EPA does not provide details on possible steps to mitigate the potential impact of external factors, however, since these would be speculative at best and needlessly complicate the discussion of means and strategies intended to achieve the Agency's goals.

Question 14. EPA's performance plan provides limited confidence that the Agency performance information will be credible. The Agency's existing data management system is outmoded. The report sites as an example the data bases used for tracking compliance with requirements under the Safe Drinking Water Act and the Clean Water Act. In addition, the report notes that the Agency talked about proposed action in its 2000 performance plan to improve data quality, but did not set performance goals or measures for these actions.

Response. The fiscal year 2000 and fiscal year 2001 Performance Plans were written before there was a true focal point for data quality in the Agency. With the creation of the new Office of Environmental Information in October 1999, EPA has placed clear leadership responsibility for this issue in the Agency. During the past year, EPA has focused on understanding the nature of some of its data quality issues, and the new Office of Environmental Information has now launched several initiatives with program managers to address them. In the fiscal year 2002 performance plan, the Agency plans to include specific commitments that reflect the data quality goals we plan to achieve in the Agency's systems.

Although they are not formally part of the performance plan, EPA has established and will be closely monitoring the following goals for data quality in fiscal year 2000 and 2001. We are building a formal procedure to provide easier identification, tracking, and resolution of errors found in the national environmental data systems. The Integrated Error Correction Process is a Web-based system that will be implemented beginning in April 2000 with the release of the 1998 Toxic Release Inventory data. By the Fall of 2000, we expect that the error correction process will be in effect across eight of EPA's National systems. In addition, EPA currently supports Data Steward Network staff in each Regional office. These employees and contractors resolve conflicts in electronic records. During the past 18 months, almost 60,000 discrepancies in facility and other records have been resolved by the Data Stewards. We also plan to complete the 6 REI data standards. Finally, EPA is establishing a Central Receiving Facility to process incoming information and data for the Agency. A key function of the Facility will be to conduct automated routines that will identify errors before incorrect or suspect data are displayed in the national data systems. In fiscal year 2000, we will also examine how to reinforce data quality in information systems through the investment review process in the future.

Sound Science

Question 15. Your budget indicates that EPA intends to target your human health research dollars on issues relating to children such as asthma and development disorders. These are public health issues, the causes of which are not well understood and certainly complex. These should be looked at holistically so that we can determine all of the significant causes of these and other children's health problems, whether environmental or not, so that we can focus our prevention and treatment in ways that will best protect children in the future. We also want to make sure that if we are going to be making significant changes in environmental standards to address these problems facing children, potentially costing billions of dollars, that we really know we are addressing these problems. How are you coordinating with the Department of Health and Human Services to develop a holistic approach to researching these problems? Do you have a specific plan for coordinating with HHS,

both with respect to the research conducted and with respect to how you will use the information to better protect children?

Response. Conducting research and implementing programs on environmental health issues, such as asthma or developmental disorders, is consistent with the mission of the U.S. Environmental Protection Agency (EPA) to protect public health and safeguard and improve the natural environment—air, water, and land—upon which life depends. We agree that a holistic approach to public health issues is appropriate and fully recognize that many of the environmental health research and programmatic activities require close coordination across several departments and agencies. For example, EPA is a long-standing member of the Environmental Health Policy Committee, chaired by the Surgeon General, and participates in its subcommittees. Under the Executive Order to Reduce Environmental Health and Safety Risks to Children (E.O. 13045, April 1997), EPA and the Department of Health and Human Services (HHS) are directed to jointly lead the Presidential Task Force on Environmental Health Risks and Safety Risks to Children. This Task Force has provided a framework for unprecedented levels of coordination on environmental health between EPA, HHS, the Department of Housing and Urban Development (HUD) and others. This coordination has led to a multi-million dollar interagency asthma initiative funded in fiscal year 2000, as well as a comprehensive interagency strategy to combat childhood lead poisoning announced on March 29, 2000, with Federal funding requested in the President's 2001 budget at \$164.5 million.

The President's asthma strategy (Asthma and the Environment: A Strategy to Protect Children) will join efforts across the Federal Government to increase research, enhance communications and community education, and implement programs aimed to reduce asthma incidence and prevalence. EPA's participation in research on environmental triggers of asthma brings the expertise and facilities unique to our Office of Research and Development, which is the only U.S. organization that has in-house capabilities for toxicological, clinical, and epidemiological research combined with extensive ambient air and personal exposure measurement. This expertise has been applied to asthma-related research for quite some time and has gained national and international recognition. In addition, the National Heart Lung and Blood Institute (NHLBI), the National Institute of Allergy and Infectious Diseases (NIAID), the National Institute of Environmental Health Sciences (NIEHS), the Agency for Toxic Substances and Disease Registry (ATSDR), and the National Center for Health Statistics (NCHS) are active in asthma research. These Federal efforts have been summarized in Action Against Asthma, a draft DHHS asthma strategy released in 1999. EPA scientists work closely with many of these HHS organizations to ensure that EPA research supplements and expands, but does not duplicate, current research efforts into the causes of asthma, asthma triggers, and effective intervention strategies.

In addition, EPA and DHHS collaborate directly on asthma related research, such as joint funding of the Centers of Excellence in Children's Environmental Health and Prevention Research. These research centers are located within eight leading research institutions across the country and perform targeted research on asthma, pesticides, and toxics. Each of these unique Centers perform targeted research into children's environmental health, and each Center's work includes a community-based prevention research component. Later this year, EPA will enter into a cooperative agreement with an additional research center.

The Task Force on Environmental Health Risks and Safety Risks to Children has also recently agreed to conduct feasibility analyses to determine whether to launch a longitudinal cohort study of the effects of environmental exposures on children and their families. At this point, HHS and EPA are evaluating various approaches which might be utilized to conduct such a study, as well as beginning to develop possible hypotheses which could be tested in such a study. Since the last large national study was done some 50 years ago, there have been major scientific breakthroughs both in terms of analyzing for environmental contaminants at very low levels as well as in beginning to understand the human genome. Both these factors could aid investigators' understanding of the influences of genetic susceptibility and environmental exposures in childhood disease.

EPA and HHS will continue to work closely together on important environmental health programs, research efforts and policy committees. We are committed to protecting public health and the environment and are pleased to collaborate with our Federal partners to ensure good coordination, cost effectiveness and maximum benefit to the American people.

Public Right-to-Know

Question 16. What steps are being taken by EPA to ensure that the Integrated Risk Information System (IRIS) data base, on which many Federal and State pro-

grams rely, contains the best available scientific information about the substances contained in the data base?

Response. Since 1995, EPA has taken several steps to ensure that the best available scientific information is included in IRIS assessments. On an annual basis, EPA announces the next set of chemicals to be considered in the IRIS program, either to update an older assessment, or to be added to the data base. This announcement includes a request for all relevant information to be submitted to EPA for consideration in the assessments. In addition, all IRIS assessments go through an external peer review, which can include a public meeting. All scientific questions and responses generated through the external reviews are available to the general public.

Question 17. How much is the Agency requesting to improve the IRIS data base? How many staff resources are working on this?

Response. For the fiscal year 2001 President's budget request, EPA requested a total of \$1.7 million and 7.8 work years under the R&D program to support the IRIS data base. Some key areas of effort in 2001 will include producing, updating, and maintaining health assessments on IRIS, ensuring appropriate external peer review of IRIS summaries and support documents, facilitating Agency consensus and resolving issues in a timely manner, and maintaining a widely accessible Internet version of IRIS, available at the local level to support community-based environmental protection.

Project XL

Question 18. It is my understanding that Project XL, which is aimed at providing some flexibility on how to comply with environmental requirements, has not been aggressively pursued by the Agency. Please explain why this program has been slow to initiate.

Response. On the contrary, Project XL has been pursued aggressively by EPA. We have signed 20 project agreements and over 30 additional projects are in development. Progress has been slower than we anticipated. When we first set out to implement this innovative program, the difficulties were not apparent. We needed to start by establishing a process and standards for something that had never been done before. For example, we put together guidelines for what constitutes superior environmental performance and a complete stakeholder process. We figured out how to provide project sponsors with flexibility while staying within the statutory framework.

The guidelines and processes that we established in this program have been transferred to other EPA programs, resulting in substantial efficiencies. For instance, EPA issued the "Guidance for Compliance Screening for Voluntary Programs," the Agency's comprehensive screening framework, which is applicable to all voluntary partnership programs. We also established the Reinvention Action Council (RAC) to further senior management involvement in advancing innovative efforts. The RAC's success in resolving problems in Project XL led to expanded responsibilities for the Council. Another example is the ECOS-EPA Innovations agreement, developed out of the XL experience, that defines seven principles to guide innovations and establishes a process that clarifies how EPA and the States will put innovations to the test. The prominent role of States in the XL process, along with the Innovations agreement, has advanced successful Federal-State partnerships in developing and managing innovation strategies for environmental protection.

Project XL posed a significant internal coordination challenge. Many projects are multi-media involving multiple programs and offices that have to work together on new ways to protect the environment. We have discovered that making multi-media modifications is difficult because of the single-media focus of environmental statutes and EPA itself. However, Project XL has set up a framework for dealing with multi-media problems. Thus, EPA's pursuit of Project XL has eased future innovations work by having dealt with these difficult issues. In order to handle enforcement and legal issues, we involve the Office of General Counsel and the Office of Enforcement and Compliance Assistance in the projects. Although we have found that operating such a cross-Agency team has inherent challenges, Project XL has overcome many of these obstacles and has established a framework for providing flexibility in exchange for superior environmental performance i.e., common-sense environmental protection. We expect to meet the goal of 50 signed XL projects this year.

Question 19. While I was Governor, three environmental groups filed a petition to US EPA requesting that the Agency revoke several Ohio's authority to administer the water, air and hazardous-waste pollution programs. The request stemmed from Ohio's environmental audit law. My Administration spent a very long time negotiating with US EPA to implement changes to our audit law. And we proceeded to get these changes passed in the State legislature. However, US EPA never dismissed the petition. These environmental groups have amended the petition two more times

since then, each time requiring US EPA to investigate the accusations. Please explain to me why this petition has not been dismissed. Are you taking any actions to dismiss it now?

Response. Between 1997 and January 2000, citizens and Ohio citizens groups ("petitioners") joined in several petitions seeking withdrawal of Ohio's Federal Clean Air Act, Clean Water Act and Resource Conservation and Recovery Act programs. EPA has an obligation to explore issues raised by citizen petitions to withdraw States' Federal environmental programs.

The Ohio petitioners based their allegations on both legal and implementation concerns. Specifically, the petitioners make two types of claims: 1) because of its audit law, Ohio lacks adequate legal authority to administer its Federal environmental programs; and 2) Ohio has failed to adequately implement key portions of its standard-setting, permitting and enforcement responsibilities under its Federal environmental programs.

With respect to the audit law concerns raised by petitioners, Ohio amended its audit privilege and immunity law effective September 30, 1998. EPA sent a letter to the State on June 18, 1999, recognizing that, as modified, and as interpreted in a March 23, 1998 opinion from the Ohio Attorney General, the amended Ohio audit privilege and immunity law addressed the concerns that EPA had previously identified regarding the effect of the law on existing federally authorized environmental programs. The letter stated that, while EPA had not made a final decision on the citizens' petitions, it believed that, as amended and interpreted, Ohio's audit privilege and immunity law should not present a barrier to continued authorization of Federal environmental programs in Ohio.

Due to the complexity of the petitions, EPA had to perform a careful and time-consuming review. However, EPA plans to respond to the petitioners' legal-authority concerns relating to Ohio's audit law this Spring. With respect to the implementation concerns raised by the petitioners, EPA is currently reviewing certain Ohio Clean Air Act, Clean Water Act and Resource Conservation and Recovery Act programs. We plan to distribute a report containing our draft findings to the public and to hold a public information session after we complete our reviews. We intend to complete both of these activities sometime this year.

