

A History of the U.S. Environmental Protection Agency
During the Clinton Administration
1993-2001



Prepared for the Clinton Administration History Project
Washington, DC
2000

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INTRODUCTION

I. Introduction

The eight years of the Clinton-Gore Administration saw a fundamental paradigm shift in the work of the Environmental Protection Agency. At the beginning of the Administration, the Agency was in many ways completing its first generation of work, solving issues of rivers so polluted they caught on fire, skies so darkened the sun was clouded on an otherwise clear day. But despite those successes, the Agency had suffered.

The embarrassing shadow of the very difficult Reagan, Watt and Gorsuch years still loomed large for the Agency -- its core enforcement program remained dismantled. The Bush-Quayle Competitiveness Council had simply refused to let the Agency do its work; increasingly the legislative requirements to set environmental standards were missed. The Superfund program was under constant attack from all. The United States had failed to provide leadership at the Rio Earth Summit, President Bush only agreeing to even attend at the last moment.

During the Clinton years, the EPA moved from controlling pollution to protecting public health; from regulating pollutants to minimizing pollution from particular sectors; from promulgating rigid national standards to protecting particular places; from imposing top-down command and control fixes to empowering stakeholders to find solutions; and from public doubt to restoring public confidence and trust.

The success of those approaches can be measured by a simple fact: In those eight years, America's economy enjoyed unparalleled growth and low unemployment and the country saw dramatically strengthened environmental protections. The contention that protecting public health must come at the expense of economic growth was finally put to rest.

By the end of President Clinton's term, EPA was acknowledged to have had a profound impact on public health in the United States at the same time that its work was recognized to be compatible with -- and indeed essential to -- a sound economy. EPA was deeply engaged in constructive work with communities, businesses, and state, tribal, and local governments in an open and transparent manner.

EPA vigorously pursued its mission, enacting sweeping new protections for the American public. Among the most significant achievements were adopting the toughest public health air quality standards in a generation for ozone (smog) and particulate matter (soot); addressing, for the first time ever, the transport of pollutants from one region to another; taking enforcement actions against old coal-fired power plants and finding that mercury emissions from these plants must be regulated; requiring all motor vehicles -- cars, SUVs, trucks and buses -- to reduce their pollution by at least 90 percent; mandating low sulfur content for gasoline and diesel fuel; requiring states to prepare and implement watershed-based plans for polluted waters; protecting the Florida Everglades by joining with other federal agencies to secure new statutory authority for the most ambitious ecosystem restoration ever; securing passage of a new Safe Drinking Water Act; completing more than three times the number of cleanups of the nation's worst hazardous waste sites than in the previous twelve years combined; creating the Brownfields program; securing passage of the Food Quality Protection Act and implementing it to prohibit production of the most hazardous older organophosphate pesticides due to their effects upon children's health; expanding the public's right-to-know and reinventing the way EPA did its job through programs like the Common Sense Initiative and Project XL.

These efforts left EPA at the conclusion of the Clinton Administration better equipped than ever to take on the new and more complex environmental challenges of the 21st Century. EPA went from being widely regarded in 1993, as one law review author put it, “the crucible of everyone’s discontent,” to an Agency responsive to the needs of the public and respected by the public it served.

II. Achievements

There were three overarching transformations effected at EPA that were fundamental to the Clinton Administration’s work: protecting public health, devising place-by-place and sector-by-sector solutions tailored to the unique needs of the affected populations and industries, and empowering all stakeholders to participate in the development and implementation of solutions in their communities.

A. Protecting Public Health

1. Protecting the Most Vulnerable

For the first two decades EPA’s work had been largely about controlling pollution. The Clinton Administration shifted the focus from the basic protection of the environment to the protection of public health, especially the health of those most vulnerable to environmental risks. The vision was to thoroughly transform EPA from an agency simply addressing complicated, difficult to understand technical issues into an agency conscious of “protecting where Americans live their lives and how they live their lives.” Within days of the Administration, changes were apparent. In January 1993, EPA released a report, buried by the previous White House, finding that second-hand tobacco smoke presented significant health threats for non-smokers. The tobacco industry and friends in Congress charged that the report went beyond EPA’s mission, that

it was not appropriate work for EPA. The tobacco companies sued. Regardless, the report led businesses, cities and states across the country to ban smoking in public places.

Early on in EPA's history, protecting "public health" meant protecting healthy adults. But by 1993, an increasing body of scientific research was demonstrating that standards written to protect healthy adults were leaving millions of children, senior citizens and other Americans with special needs exposed to dangerous levels of toxic chemicals. Science demonstrated children were not just small adults – rather they were individuals who breathe and eat more per pound of body weight, play outdoors, and crawl around in the dirt on their hands and knees. Whether it was the 160 percent increase in the incidence of childhood asthma in children under five years of age between 1979 and 1994, or levels of lead contamination that remained alarmingly high, or the discovery that certain pesticides approved for crop protection or home use could actually be dangerous to children, it was clear that standards that were protecting adults were leaving children behind.

EPA addressed this shortcoming through the legislative process, through new standards and regulations and through a thorough change in institutional culture. In Congress, the Administration backed the 1996 Food Quality Protection Act and the Safe Drinking Water Act Amendments, which required EPA to give special attention to children, including in the case of their food, the unique nature of children's diets.

In 1995, EPA announced a policy to explicitly take children into account when assessing environmental risks to ensure that standards and regulations recognized the increased risk children faced. In 1996, Administrator Browner announced a seven-step National Agenda to Protect Children's Health from Environmental Threats, including a requirement that standards, research

and policies address risks to children, and improving information available to communities, parents, and health care providers.

On April 21, 1997, President Clinton extended this commitment to children's health when he signed an Executive Order requiring federal agencies to place a high priority on protecting children from environmental and safety risks and creating a task force. Administrator Browner and Health and Human Services Secretary Donna Shalala were named co-chairs. Later that year, EPA announced the formation of a new Office of Children's Health Protection to formalize and integrate the EPA's efforts on behalf of children and coordinate those efforts with other government agencies.

When the Clinton Administration came into office, nearly 1 million children in the United States had elevated blood lead levels. EPA, working with other federal departments and agencies, including the Department of Housing and Urban Development, the Department of Health and Human Services, the Department of Justice, and the Consumer Product Safety Commission, developed a strategy to eliminate childhood lead poisoning by the year 2010. The strategy called for preventing residential lead paint hazards, expanding childhood drug screening, and conducting research to drive down lead hazard control costs. EPA also expanded inspection and enforcement of the Lead Hazard Disclosure Rule, which required sellers, landlords, and agents to disclose information about the presence of lead paint hazards to prospective homeowners and tenants.

2. Clean Air

EPA's consistent work at thorough implementation of the 1990 Clean Air Act was widely considered one of the Administration's greatest public health and environmental accomplishments. Taken together, EPA's work represented cleaner air to breathe for every American. The soot and

smog standards were the toughest ever set. EPA required that all major sources of air pollution be dramatically reduced: cars, sport-utility vehicles, heavy-duty trucks and buses, gasoline and diesel fuels, power plants and factories. The Agency adopted programs to combat the long distance transport of ozone. EPA also made significant progress in repairing the stratospheric ozone layer and protecting the public from skin cancers layer by virtually eliminating chlorofluorocarbons (CFCs) at a cost far lower than originally anticipated. And EPA created and successfully implemented the first emissions credit trading program for acid rain.

In the twenty years preceding the Clinton Administration, EPA had adopted only seven toxic air pollution standards. From 1993-2000, EPA issued nearly 50 standards to reduce toxic air emissions from industries such as coke ovens, petroleum refineries, chemical plants, dry cleaners, and municipal, hazardous, and medical waste incinerators. These pollutants – heavy metals such as mercury, volatile chemicals such as benzene, and combustion byproducts such as dioxin – were known or suspected to cause cancer, birth defects or other serious health and environmental problems. EPA estimated that the standards when fully implemented would eliminate over 1 million tons of air toxics and 1.5 million tons of smog-causing volatile organic compounds every year.

3. New Responses

Awareness of the environmental threats to public health, as well as the understanding of how to best protect our people grew dramatically since the first environmental laws were enacted and reauthorized. Indeed, the increasing intensity of the conflict between business, communities, environmentalists, property owners and state and local governments, was testimony to the failure of those laws to keep up with the times. From the beginning, the Clinton Administration sought

to generate a new consensus among those stakeholders and translate it into new, modern laws. However, the partisan agenda advanced by the Republican leadership in Congress stood in the way of achieving comprehensive success. Later sections of this report go into more detail about how EPA was able to forge agreements for legislation among stakeholders only to see those bills die in Congress; Superfund was the most dramatic and tragic example of that. However, there were two notable exceptions.

a. Safe Drinking Water Reauthorization

In 1993, *Cryptosporidium* invaded Milwaukee's drinking water and more than 400,000 individuals became ill and at least 100 people died. Increasingly, the public and EPA were concerned that the current Safe Drinking Water Act was outdated. Frustrated by the Reagan-Bush era inattention to strengthening standards, Congress had reacted by passing legislation specifically listing the drinking water contaminants for which EPA should set standards. Unfortunately, by 1993 the EPA was behind schedule and the list was hopelessly out of date with what current science concluded were the greatest risks. *Cryptosporidium* was not even included on the congressionally mandated list. The Administration proposed legislation calling for a scientific risk-based standard setting process that would meet the challenge of emerging threats and the first ever federal dollars to local communities in the form of a revolving loan fund. States could even use some of this money to prevent pollution from entering the source water, rather than simply treating it later.

With overwhelming congressional support, the Safe Drinking Water Reauthorization was signed by the President on August 6, 1996. The Administration also successfully argued for the first ever national drinking water Right-to-Know program -- the Consumer Confidence Reports.

As a result, drinking water systems across the country were required to provide their users with information on the source of their tap water, violations of any standards, and steps taken to correct the problems.

b. Food Quality Protection Act

Probably no issue more rankled conservatives and industry than the Delaney Clause. This provision, adopted in the 1950s, reflected the prevailing public health concerns and diet at the time: cancer and processed foods. The Administration proposed legislation to broaden the protections to all risks and foods. In response to the 1993 National Academy of Sciences Report of Pesticides in the Diet of Infants and Children, the Administration also called for an explicit children's safety factor, as well as an analysis of aggregate and cumulative exposures. After two years of debate, including joint appearances by the Secretary of Agriculture and the Administrator before committees of the Congress, the Food Quality Protection Act bill was signed by the President on August 3, 1996.

B. Tailoring Solutions

Two of the most telling criticisms of environmental regulation in the 1980s was that it was "one size fits all," and that they were developed to curtail particular pollutants rather than protect real places or ecosystems. What made sense for the automobile industry did not work for the computer chip manufacturers. Similarly, addressing the needs of the San Francisco Bay Delta was not the same as restoring the Florida Everglades, either in its history, its present or its future. From the beginning of the Clinton Administration, EPA revised its starting points, so that solutions and standards could be written and implemented sector-by-sector, place-by-place.

1. Reducing Pollution, Sector-by-Sector

a. Successful Collaboration: The Transportation Sector

Perhaps EPA's most innovative and successful efforts to devise an integrated approach for a particular industry came in its efforts to reduce air pollution from the transportation sector. EPA broke from the old paradigm of looking at each component of the problem separately, over time. Instead of looking at the catalytic converter one year, gasoline the next, EPA sought comprehensive approaches to producing the most cost effective gains in air quality. EPA brought the automobile and oil industries, environmentalists and state environmental authorities together to collaborate on new approaches to making cleaner cars. Those approaches combined technical innovation by the car companies with cleaner fuels produced by the oil industry. In December 1999, President Clinton announced Phase One which focused on cars, light-duty trucks and sport utility vehicles. In December 2000, President Clinton announced rules covering heavy-duty trucks and buses. Along with higher standards for gasoline and diesel fuel, the net effect would be to make all vehicles on America's roads 77 percent to 95 percent cleaner, and produce the clean air equivalent of removing 164 million cars from the road.

EPA's collaboration with the auto industry also extended to technical innovation. For the first time ever, EPA secured ten patents for its work on mobile source pollution reduction technologies and entered into two confidential research and development agreements with the automotive industry.

b. Innovation, Sector-by-Sector

Under the Clinton Administration, EPA was challenged, along with other agencies, to find ways to make government work better and cost less. EPA started with a comprehensive review

of all its regulations – the first time the Agency had ever done such a review. This led EPA to begin devising new strategies for improving efficiency and effectiveness.

One of the earliest of these innovations was the Common Sense Initiative. This initiative, launched by Administrator Browner on July 20, 1994, tailored environmental protection to specific industries. For nearly five years, EPA worked with select industries to better understand the issues that affected environmental performance and inhibited enhanced pollution reductions. This work of understanding “where industry was coming from” led to a much more constructive working relationship with former adversaries, numerous commitments by industry to make improved environmental performance a top priority, and numerous changes in EPA regulations.

One year later, EPA took even bolder steps to improve environmental protection. Through a program known as Project XL (named to recognize environmental excellence and leadership), EPA said, in effect, “If you have an idea that offers better results than what would be achieved under current requirements, then we will work with you and other interested parties to put those ideas to the test.”

One example of the overwhelming success the program enjoyed was Weyerhaeuser. Weyerhaeuser’s pulp mill in Oglethorpe, Georgia tested an alternative facility-wide permit that reduced solid waste 40 percent, waste water discharges 32 percent, and air emissions 13 percent in the first year. Weyerhaeuser saved \$176,000 in one year in reporting consolidation alone, and they predicted savings up to \$29 million over the life of the project.

C. Place-by-Place

Protecting the places Americans live, work and play requires acknowledging from the outset that lasting solutions depend on collaboration among all the stakeholders in an area --

residents, businesses, state and local governments and environmentalists. The Administration recognized that when you involve those in a community, those who understand the history of a particular place, the magic and the challenges, the quality of the decisions made improves. The understanding was fundamental to the success of everything from EPA's ecosystem work, to regional haze, Superfund and Brownfields.

Working with state and local governments and other stakeholders, EPA provided the leadership to conclude regional agreements that significantly protected ecosystems across the nation, including the Florida Everglades, the Great Lakes, Lake Tahoe, the San Francisco Bay Delta, the Chesapeake Bay, the Gulf of Mexico, as well as solutions for regional haze and the Grand Canyon visibility protections.

One of the Administration's best collaborative, place-based approaches was undertaken to save and restore the Everglades. Years of discussions with citizens, business interests, farmers, environmentalists, and the State led to an unusual recognition of the need for action and a common vision of a sustainable future. A recognition that ecosystem protection, farming, urban drinking water needs, fresh water for fisheries and clean beaches, are all equally compatible -- and equally at risk by a failure to act.

In the final days of the 2000 election season, the Congress passed the Everglades Restoration Act. While many had predicted the demise of the Everglades before the Administration, it was in large measure the Vice President's consistent attention that made the Everglades a national issue. While the Vice President made numerous trips to Everglades National Park, perhaps most memorable was the 50th Anniversary -- where he announced the acquisition of critical lands for water supply in the Everglades Agricultural Area, known as the

Talisman Tract, as well as a commitment to finish the plan for Everglades restoration. On December 11, 2000, in the midst of the Florida vote recount, with Governor Jeb Bush (R-Florida) in attendance, President Clinton signed the bill. And in the closing days, the Administration provided another level of protection for the Florida Everglades when it rejected development of a major airport on the Homestead Air Force Base.

D. Engaging All Stakeholders

The Clinton Administration came to office believing that well informed, empowered communities produced effective, lasting solutions. And as the new EPA began its work, it sought to engage all stakeholders and expand access to ensure a real seat at the table for all participants.

1. Environmental Justice

There is compelling evidence that those who live in poor and minority communities are forced to bear a disproportionate share of the burden of living in a modern industrial society. One only has to drive through these communities to know this is true. Many in these communities believe that these burdens contribute to the higher rates of cancer, asthma, and lower life expectancy found in those neighborhoods. But it's not surprising that those communities who bear so large a burden are by their nature, communities with far fewer resources - financial, technical and legal - to effectively advocate their interests. The Clinton Administration was the first to give significance to the challenges of "environmental justice."

In September 1993, EPA established the National Environmental Justice Advisory Committee. Then in February 1994, President Clinton issued an Executive Order on environmental justice, requiring all federal agencies to assess the effects of their actions on

minority and low income communities. EPA looked throughout its operations to understand how it could better engage and work with disenfranchised communities and did extensive technical outreach.

Yet as greater attention was paid to environmental justice concerns, many communities adopted a new tactic for having their concerns aired -- the filing of a formal petition with EPA under Title VI of the Civil Rights Act of 1964. These cases presented difficult issues of scientific causation and proof, often because they concerned the cumulative effects of pollution. As a result, EPA developed a significant backlog of Title VI petitions. In an effort to provide information to affected parties about how it would process these pending and any future petitions, EPA in 1998 issued "Interim Guidance" describing its process. This effort provoked wide-scale outrage by the nation's mayors and by businesses, who alleged that EPA was promoting controversy and opposition to economic development and second-guessing local permitting authorities. As a result, EPA pledged to work much more closely with the U.S. Conference of Mayors and other groups to seek advice on how to amend its guidance. Yet in a demonstration of how intractable some cutting-edge public health problems could be, despite the fact that the Agency had spent hundreds of hours in public meetings, no agreement among interested parties was reached.

2. Tribal Governments

Like many in the federal government, EPA had not fully recognized the special needs of tribal governments and had been insensitive to the rightful demands of tribal sovereignty on Native Americans' lands. During the Clinton Administration, EPA began the work of truly recognizing the "government-to-government" relationship with tribal nations across the country.

In March 1994, the Administrator formed a team of Agency leaders to make recommendations on EPA/Tribal relations. Shortly thereafter a new EPA Tribal Operations Committee was formed and in October 1994, EPA established the American Indian Environmental Office.

In February 1998, EPA issued the Tribal Authority Rule, specifying for the first time that under the Clean Air Act EPA would treat tribes like states in the implementation of air programs in Indian Country. By the end of the Administration, EPA was providing \$180 million dollars to the tribes, a fivefold increase. More than 500 tribes received EPA grants up from four tribes at the beginning of the Administration.

3. State Partnerships

Perhaps one of the most difficult relationships for the Clinton Administration was the federal-state environmental relationship. In many ways, the state environmental agencies benefitted from the fact that the Administration included so many from state government. These appointees recognized and appreciated the dramatic growth of the state environmental agencies and the strengths that each level of government brought to the shared challenge of public health and environmental protection. Nevertheless, securing a partnership was an ongoing effort that required continued diligence. Early Administration efforts included encouragement and funding for the creation of a national state agency directors organization, the Environmental Council of States, and increased funding to the states. In April 1996, Congress authorized EPA's request for Performance Partnership Grants, allowing states to take advantage of streamlined administrative requirements and flexibility to direct resources.

E. Restoring Public Trust

When the Clinton Administration took office in January 1993, public confidence in EPA

was low, and morale inside the Agency was low. Beginning in 1981, Reagan Administration efforts led by Administrator Anne Gorsuch to gut the agency and ignore its responsibilities to enforce the environmental protection laws already on the books publicly discredited the Agency and devastated morale among career employees. EPA would go through 12 years of often bitter conflict with the Reagan and Bush White Houses, who generally wanted the Agency to do less while Congress generally wanted it to do more. Caught in that cross-fire, it was not surprising that little progress was made on an array of important environmental issues. Indeed, on Inauguration Day 1993, a banner was unfurled by Agency employees that read, "Free At Last, Free At Last." The new Administration realized immediately that restoring public confidence in the Agency and rebuilding the morale and institutional integrity at EPA was a prerequisite for achieving real progress. To achieve those goals, EPA quickly took several key steps.

1. Science

During the Clinton Administration, EPA sought to increase the importance of applying sound scientific research and practices to its decision making process. Ultimately, compliance is higher when the public and regulated industries are confident that rules and regulations are grounded based on compelling scientific evidence. When EPA established new standards for ozone (smog) and particulate matter (PM or soot), those National Ambient Air Quality Standards were based on extensive scientific analysis and peer review, which included more than 250 of the most relevant studies as well as extensive public input of more than 125 hours of discussion.

Fundamental to good science is peer review. Beginning in 1994, EPA sought to increase and enhance all peer review. Not only were final work products required to be peer reviewed but additional reviews were added at the planning stages of work. By January 2001, EPA published

the second edition of the Peer Review Handbook. EPA also sought to better engage scientists outside of the Agency, creating a new \$100 million competitive research grants program and a \$10 million competitive graduate fellowship program.

2. Enforcement

Until 1993, EPA's enforcement program was largely decentralized with legal and technical staff dispersed in the various media (air, water, toxics, etc.) and regional offices. The organizational structure had several important drawbacks. It stood in the way of setting Agency-wide priorities, frustrated efforts to consistently apply the law, prevented the Agency from taking an industry-wide approach, and made it difficult to measure or assess overall improvements in environmental quality and compliance rates.

One of the earliest actions of the Clinton Administration was a reorganization of EPA's enforcement efforts. In 1994, Vice President Gore, in a personal visit with EPA senior career managers, announced a consolidated and strengthened Office of Enforcement complemented by compliance incentives and compliance assistance. This approach allowed EPA to help businesses understand and meet their obligations, and to provide strong federal enforcement to ensure that no unfair competitive advantages were obtained by those not meeting their environmental protection requirements.

Once EPA's enforcement resources were reorganized the results were dramatic. EPA could begin to target its enforcement resources. EPA initiated a sector-by-sector approach to enforcement which yielded unprecedented penalties and reductions in pollution. One of the best illustrations of this new approach to enforcement was EPA's investigation and successful

prosecution of utilities and other coal-fired plants who were avoiding requirements under the Clean Air Act.

3. Right-to-Know

The Toxic Release Inventory (TRI), also known as the Community Right-to-Know program, requires companies to disclose to the public what toxic chemicals are being emitted, stored or transported at their facilities. The Administration recognized it as fundamental to building effective partnerships with neighborhoods. During the eight years of the Administration, EPA more than doubled the number of chemical emissions required to be reported under the program, and expanding the manufacturing sectors required to provide annual reports on their emissions. By the end of the Administration, approximately 80,000 reports – listing billions of pounds of chemical wastes – were being submitted each year by more than 20,000 facilities, including 200 federal facilities.

The Right-to-Know program was targeted early and repeatedly by the Republican Congressional leadership. Congress repeatedly sought to undermine the TRI program, even attempting to roll back its original scope. However, on August 8, 1995, President Clinton signed a Pollution Disclosure Executive Order effectively trumping one of the 104th anti-environmental legislative riders that sought to limit the implementation of an earlier Administration strengthening measure requiring reporting by all companies doing business with the federal government.

As the demand for information continued to grow, EPA consolidated the disparate information programs across the Agency and created the Office of Environmental Information. The EPA Web site, which contained more than half a million individual web pages -- from beach closures to car model tailpipe emissions -- received on average 100 million hits a month toward

the end of the Administration. During this time, EPA also began offering real time environmental monitoring data over the Internet. Through the Environmental Monitoring for Public Access and Community Tracking program (EMPACT), EPA provided information for 85 cities, including current ozone or smog levels allowing the parent of an asthmatic child to make informed and important decisions about their child's activities.

F. Workforce

Prior to the Administration, EPA had been racked by senior political management instability, including the high profile conviction of one appointee and the resignation of an earlier Administrator under a cloud of scandal. By the end of the Administration, Administrator Browner had served the full eight Clinton years -- more than one-quarter of EPA's history -- as did many of the other EPA appointees. Top political, career employees, states and tribal representatives and union representatives participated in the budget planning process.

Many of EPA's employees found themselves in new offices by the end of the eight years. Headquarters was completing a move from the controversial "Waterside Mall" and the allegations of a "sick building" to the historic Ariel Rios and ICC buildings. A state-of-the-art science center had been completed in Research Triangle Park.

As the President worked to build an Administration that looked like America, so did EPA. During this time, EPA made unprecedented progress in the hiring and promotion of minority and female employees. These active steps allowed EPA to produce better results for the American public, whose composition was becoming more and more diverse. From 1993 to 2000, minority representation in the Senior Executive Service (SES) more than tripled. For women at the SES level, the increase was 50 percent. In addition, EPA's minority representation in senior Agency

positions increased an outstanding 116 percent, from 1,086 to 2,348 in 2000. During this time, programs to ensure fairness and opportunity for all were expanded to include a recognition that the rights of all employees, regardless of race, ethnicity, gender, religion, age, disability or sexual preference, would be respected.

Throughout the Administration, EPA undertook a series of intense and sustained activity, designed to help further an institutional culture that was fair, equitable and supportive of each member of the EPA workforce. These efforts included the collaborative creation of diversity action plans, training programs, and a thorough review of hiring, promotion and award practices.

Despite these gains, EPA continued to struggle with a backlog of employee discrimination complaints and the Agency suffered a serious setback when an employee won a discrimination case against the Agency. In response, EPA retained the services of independent firms to evaluate management accountability, and workplace fairness and diversity issues. The Agency also redoubled its efforts to put in place additional programs to bring attention to the important issues of workplace fairness and diversity. Before the end of the Administration, EPA had created a new Office of Fairness and Opportunity, to be headed by an Associate Administrator reporting directly to the Administrator.

G. Setbacks and Challenges

1. Congress

EPA's progress protecting public health and the environment during the Clinton Administration was achieved in the crucible of constant struggle with Congress. That conflict undoubtedly cost America the opportunity to make even greater progress. Congressional

resistance also cost the United States the opportunity to lead the world in taking on global warming.

Simply put, the Republican leadership of the 104th Congress declared war on EPA. Ironically, at a time when the public's support for common sense approaches and strengthening environmental and public health protections emerged as a clear cut consensus, Congress became more polarized. At a time when industry, communities, scientists and environmentalists were ready to sit down to discuss approaches to the long overdue modernization of the nation's core environmental statutes, the partisan leadership in Congress was not.

In the cross-hairs of the Republican leadership were the most fundamental tenets of public health and environmental protection, which had long shared strong basic bi-partisan agreements. Paramount among these efforts was a rejection of the polluter's responsibility to pay to clean their pollution; a disregard for one of the most successful means of reducing pollution -- the application of the best available technologies, without regard to cost; and a recognition that a minimum level of federal protection was necessary to guard against pollutants that moved across state lines. The basic components that formed the basis of the 1970's environmental legislation was subject to attack again and again.

With the "Contract with America" Congress and introduction of the "Dirty Water Bill," Congress sought to undermine EPA and roll back environmental protections. Indeed, Majority Whip Tom DeLay (R-TX) took to the House floor to decry EPA as the "Gestapo of government" with its "jackbooted thugs." Among the sweeping Republican proposals: 30 percent budget cuts for the Agency; personal liability for EPA enforcement personnel; and dozens of appropriations "riders" to curtail specific EPA authorities. The Administration's dispute with Congress

culminated with the shutdown of the federal government on two occasions in part because of the inability to reach agreement on EPA funding levels and the elimination of the anti-environmental riders.

With the President and Vice President's unwavering support, numerous speeches and Presidential vetoes, EPA survived the worst of Congress' attacks. If anything, the Congress' radical attacks solidified public support for EPA and its mission. What emerged from their attack on EPA and the environmental laws of the country was not a humbled Agency, stripped of meaningful enforcement and regulatory authorities. Rather, as EPA continued to go about its job of providing new public health protections in a common sense way and at the same time reforming its efforts to avoid those regulatory burdens made unnecessary by smarter approaches, the Clinton Administration EPA -- led by Administrator Browner's vigorous public outreach efforts -- built unparalleled public support. The public continued to demand that industrial polluters be accountable for the problems that they created and that there be a strong federal enforcement and regulatory presence to ensure the protection of public health and the environment.

Perhaps the greatest cost of the six year standoff between Congress and the Administration was the failure to modernize the nation's core environmental statutes. Despite the Administration having developed and offered to Congress extensive proposals for reform of Superfund and the Clean Water Act, Congress shied away from any reforms and was deadlocked on these issues. Indeed, compared to the period in the early 1970's when the modern environmental statutory framework was put into place, or the late 1980's when it was modernized in the Clean Water Act, and with the adoption of Superfund, RCRA, the Right-to-Know

requirements, and then ultimately the extensive Clean Air Act Amendments of 1990, Congress after the failure of the Contract with America became largely disengaged as a legislative partner.

There is no better example of the Administration's seriousness of purpose and intensity of effort -- and the way in which Congress thwarted that -- than its efforts to reform Superfund. The original law passed at the very end of the Carter Administration in 1980, and reauthorized in 1986, was increasingly under attack. The criticisms were oft-repeated: "Responsible parties" or the "polluters" demanding changes in the retroactive, joint and several, and strict liability provisions; small businesses unfairly caught in the liability scheme; cleanup standards described as ridiculously stringent -- dirt so clean you could eat it; communities surrounding the sites excluded from the decision makers; too much money to the lawyers and not enough to the cleanups. After 12 years of work, only 155 sites had been cleaned up. Ultimately, Administrator Browner was able to broker an approach that won the support of groups as diverse as the Sierra Club and the Chemical Manufacturers Association, and on February 3, 1994, the Administration presented to Congress proposed comprehensive Superfund reform legislation. The effort yielded a package of reforms that preserved the fundamentals of the original law but recognized the need for flexibility, fairness and efficiency: future land use was to have been considered in the cleanup plan while ensuring public health protections; responsible parties would pay their fair share and a fund would be created to cover cleanup costs of those businesses no longer viable.

Most recognized the Administration's proposal as the first ever environmental legislation to enjoy both the support of the affected industries and environmentalists from the beginning. Unfortunately, as the mid-term election approached and with it a growing sense that the Senate might change hands, some in industry encouraged the Senate Republicans, under the leadership of

Bob Dole, to delay final passage for the next Congress. In the final moments the bill died after being passed by the House of Representatives and considered on the Senate Floor.

An area where agreement was reached with the Congress was passage of the North American Free Trade Agreement (NAFTA) which included for the first time, in a trade agreement, environmental safeguards. EPA was one of the Administration's negotiators on the agreement and advocates for passage. Of particular focus for EPA's work after passage was creation of the Border Environmental Cooperation Commission and the North America Development Bank which provided the funding for border environmental projects. The Administrator also served as the United States representative to the NAFTA created Commission on the Environmental Cooperation.

2. The Courts

Since the 1980s, regulatory agencies, including EPA, had been given deference to make a reasonable interpretation of its statutes. The Clinton years saw a steady erosion of this deference by the courts. By the end of the Clinton Administration, a series of lower court rulings called into question the very constitutionality of the nation's environmental laws.

Most important among many cases was litigation of the ozone and fine particle matter standards. Within weeks of the Administration's announcement of the soot and smog air pollution standards, industry sued and ultimately two cases were argued in the Supreme Court on Election Day, 2000, *American Trucking v. Browner* and *Browner v. American Trucking*. The lower court had invoked a long rejected legal doctrine of "non-delegation" finding that the Congressional direction to EPA to set public health air standards went beyond the Constitutional constraints on the ability of Congress to delegate its authority to agencies, and that EPA had

failed to remedy this by articulating an “intelligible principle” for where it set the standards, which the lower Court suggested should be “cost-benefit” although recognizing that EPA was not allowed to set these public health provision based on such an analysis.

As the Administration left office, many observers thought this case could become the most significant environmental law decision of a generation. The statutory provisions at issue in the Clean Air Act had been on the books since the original law was passed and had been relied on to achieve the majority of progress made toward cleaner air over twenty-five years. The provisions were similar to many across regulatory programs. EPA had done more science, more peer review, and provided broader public participation. Congress itself had held 25 hearings and did not change EPA’s decision. For the Supreme Court to reject this most basic and long standing mechanism for developing public health standards could well call into question a wide range of public health, safety and consumer protections.

III. Future Challenges

By the end of the Clinton years, EPA was celebrating its 30th anniversary, with increased public support and confidence, its largest budget ever, a corresponding growth in the focus of its work and a fundamental change in the way it did its work. No doubt some believed that once the nation had solved the obvious problems of pollution -- rivers on fire, toxic waste piles, air so dirty you could see it -- the job would be done, checked off the national to do list. But there was a growing recognition that the work of protecting those things which all the people shared would never be done -- there will always be a responsibility for government to ensure those protections.

The challenges ahead were significant both short and long term: Would Congress modernize and update the nation’s environmental laws or would they accept the radical “reforms”

of some in the Congress? Would EPA be permanently elevated to Department status? If so, what would the cost be to the Agency's work? And, a federal judiciary seemingly more eager to protect antiquated notions of states' rights and constitutional doctrine than the public's health and environment?

Mostly importantly, how would EPA, the nation and the world accept and address the challenge of global warming and climate change? Under the best of political circumstances, mustering the will at home and around the world to face a threat whose consequences were certain, but still only barely glimpsed by the public, would be unprecedented. Would the nation provide the much needed international leadership?

Chapter 1

Protecting Public Health and the Environment: Ensuring Clean Air Protections

In 1990, two years before the Clinton Administration came to office, the U.S. Congress reauthorized the Clean Air Act (CAA). At that time, then-Senator Albert Gore, Jr. played an important role in the floor debate securing several strengthening amendments. While most saw passage as a significant victory, the real work of implementing the Act was left to the Clinton Administration.

EPA's efforts at implementing the 1990 Clean Air Act were widely considered one of the Administration's greatest public health and environmental accomplishments. EPA required dramatic reductions of all major sources of air pollution -- cars, sport-utility vehicles, heavy-duty trucks and buses, gasoline and diesel fuels, power plants and factories. The Agency adopted programs to combat the long distance transport of ozone and to increase visibility by reducing haze in national parks. It set fifty toxic air pollution standards and made significant progress in repairing the stratospheric ozone layer by virtually eliminating chlorofluorocarbons (CFC's). It created and successfully implemented the first emissions credit trading program for acid rain. And finally, it secured ten patents for its work on mobile source pollution reduction technologies and entered into two confidential research and development agreements with the automotive industry.

Although the 1990 CAA Amendments created the expectation that specific work would be done to set standards and adopt regulations, it required the development of an intricate process and schedule for implementation that would achieve the expected results. EPA placed a high priority on a regulatory decision-making process that ensured extensive, independent peer-review, strong scientific analyses, and broad outreach to the public and industry. Moreover, even though

the CAA did not require integration of regulations to ensure better efficiency, such as those governing tailpipe standards and cleaner fuel, EPA recognized the logic in ensuring common-sense, cost-effective, flexible solutions to the nation's air quality problems.

Perhaps the most significant public health actions by the Clinton Administration began only three weeks after the President's inauguration. Although the CAA required a review of the air standards every five years, the previous Administration had not met its statutory obligation to review the science to decide whether a revision of the national ambient air quality standards for ozone (smog) or particulate matter (PM or soot) was necessary. EPA had last conducted a thorough review of the ozone standard in 1978, the last review of particulate matter in 1987. Soon after taking office, based on numerous scientific studies that found the existing standard inadequate to protect public health, Administrator Browner rejected the prior Administration's decision not to change the ozone standards and ordered a comprehensive review to determine the appropriate level for public health.

In 1997, President Clinton announced one of EPA's most important and controversial decisions -- tough new public health standards for smog and soot. The new standards were litigated, appealed and ultimately argued in front of the U.S. Supreme Court on November 7, 2000. By the end of the Administration, the Supreme Court had not yet ruled on the landmark case.

As the debate around the new smog and soot standards continued, EPA worked to determine new ways to make progress on global warming. While Vice President Gore had provided much needed leadership in Kyoto, Japan in 1997, at the United Nations Framework Convention on Climate Change, the Kyoto Protocol was never ratified by the U.S. Senate or

implemented by the Agency. The immediate and unrelenting position of Congress was chiefly one of opposition. Due in large part to EPA's ongoing innovations in its Energy Star and other energy efficient programs and its success in concurrently addressing a variety of air pollutants, the Administration concluded that it could simultaneously combat air pollution while meeting the challenge of climate change. In the final year, the Administration called for a four-pollutant strategy to reduce carbon, sulfur dioxide, ozone and mercury. The announcement was made by the Vice President on Earth Day 2000. The challenge for the next Administration would be to adopt a multi-pollutant strategy without relaxing requirements that already had been established. Undoubtedly, many in industry would argue for delays in implementing existing requirements in return for such a strategy.

Vice President Gore's leadership on global warming included creation of the Partnership for a New Generation of Vehicles, with a goal to develop production prototype vehicles that achieved fuel efficiency goals of 80 miles per gallon (mpg) and a commensurate reduction in greenhouse gas emissions from the transportation sector. By the end of the Administration, EPA's National Vehicle and Fuel Emissions Lab in Ann Arbor, Michigan had already developed prototype vehicles with new technologies that approached the 80 mpg goal.

Smog and Soot

On June 25, 1997, President Clinton announced one of EPA's most important and controversial public health decisions -- establishing new standards for ozone (smog) and particulate matter (PM or soot). The National Ambient Air Quality Standards were based on extensive scientific analysis and peer review, which included more than 250 of the most relevant studies. The process also included extensive public input, with more than 125 hours of public

discussion. By the time the standards were set, EPA had concluded the most rigorous review of any of its decisions under the Clean Air Act since the Act's original passage in 1970.

Since passage of the original Clean Air Act, EPA was required to conduct five-year reviews of the six most commonly found air pollutants to determine, based on the best available science, whether the standards were protective of public health. While the ozone standard had been in place for decades, increasing scientific evidence indicated that fine particles, which made up soot, could lodge deep in the lungs. The science demonstrated that the soot could lead to serious health impacts on the American public, including premature death. Prior to 1997, EPA's standard only addressed larger particles of soot, called coarse particles. Now, for the first time, this new action established a separate fine particulate standard.

The signing of the proposal of the two standards on July 16, 1997, launched an intense and often controversial debate both inside the Administration as well as outside. The controversy centered in part around the fact that the standards did not actually require any specific pollution reductions, but rather the CAA required EPA to establish the level of pollution that could safely be in the air. Many in industry fought the proposals, arguing that there was not enough science; that EPA's interpretation of the existing science was flawed; that the costs of reducing pollution were not warranted given the public health benefits; and that the standards should actually have been set based on the outcome of a cost-benefit analysis. Environmentalists and some states argued vocally for the proposed standards, even suggesting that the standards should be tougher than those proposed. Congress was split and held more than 25 hearings on the standards before nine committees. Although Members of Congress made numerous threats to block the standards,

opponents failed to change or nullify the new health-based standards through legislation, appropriations riders or the Congressional Review Act.

Within the Administration, the debate focused on the number of areas across the country that would be affected by the standards and the ultimate costs to industry of reducing their pollution. Ultimately, the President personally made the decision to go forward with both standards with only minor adjustments to the original EPA proposal. He also directed EPA to ensure the most cost-effective implementation strategies for these standards. In the President's July 16, 1997, memorandum to Administrator Browner approving the new standards, *Implementation of Revised Air Quality Standards for Ozone and Particulate Matter*, he wrote, "Implementation of the air quality standards is to be carried out to maximize common-sense, flexibility, and cost-effectiveness." In May 1998, Congress codified significant portions of the Presidential Memorandum on implementation of the standards as an amendment to the Transportation Equity Act (TEA-21).

Within weeks of adoption of the standards, lawsuits were filed. Industry, states and trade associations, with supporting briefs from Members of Congress, challenged the new standards, arguing that EPA's science on setting the standards had been flawed and that the public health provisions in the CAA were unconstitutional. In a blow to the Agency, the U.S. Court of Appeals for the District of Columbia remanded the standards in May 1999, finding that Congress's delegation of authority to EPA, under the Clean Air Act, violated the non-delegation doctrine. By invoking the legal doctrine, the District Court had ignored 64 years of Supreme Court precedent. Indeed, the dissenting opinion of the three-judge panel noted that the opinion "[departed] from a half century of Supreme Court separation-of-powers jurisprudence." Despite

the Court's ruling, it did not challenge the scientific basis of EPA's new standards, nor did it find merit in industry's alleged process violations.

EPA and the U.S. Justice Department appealed the decision to the U.S. Supreme Court, which heard arguments on the case on November 7, 2000. The Court was expected to rule on the case in mid-2001. The two major issues before the Court were the constitutional issue of EPA's authority to set standards and whether EPA had to consider costs in setting the standards, an action which would have reversed 20 years of court precedent on the issue. The U.S. Justice Department's Solicitor General argued that the Clean Air Act required the EPA to set national ambient air quality standards to protect the public's health based on the best available science and that under the CAA the Agency was specifically forbidden from basing its decision on a cost-benefit analysis. EPA had in fact undertaken a cost-benefit analysis of the proposed and final standards to inform the public, but as directed by the CAA had not based its decision on the cost-benefit analysis, but rather the science and public health needs.

As a result of the litigation, EPA halted implementation of the new, more protective smog standard and continued its work on the pre-existing standard. Implementation of the first ever fine particle standard was not scheduled to begin until after July 2002.

Since EPA's original work on the new public health based standards, the available science only become clearer in recognizing the very significant public health consequences of both excess ozone and fine particles. In response to Congressional concerns, and at EPA's request, the Health Effects Institute (HEI), a highly respected research organization jointly funded by EPA and the oil and auto industries, completed an independent review of the original data behind two of the fine particle studies EPA had relied upon to make its decisions. Their review essentially

replicated the original results. HEI also sponsored additional analysis that further supported EPA's conclusions about the health effects of particulate matter.

Cleaner Cars and Trucks

As a result of the Administration's work every car, SUV, bus and trucks would ultimately be at least 90 percent cleaner by 2010, and all gasoline and diesel fuel significantly cleaner as well.

EPA's work on tailpipe emissions reflected an unprecedented comprehensive approach for attacking pollution at its source. For the first time, EPA recognized that tailpipe emissions were a factor of both engine standards and fuel requirements and thus decided to simultaneously set new engine and fuel standards, leading to greater pollution reductions in a more cost-effective and efficient manner. Much of the progress in setting these standards was achieved through an unprecedented level of engagement and dialogue among industry representatives, state officials, environmentalists, public health experts and top EPA appointees and Agency officials.

Phase one of the effort, announced by the President in December 1999, focused on cars and light-duty trucks and the second, announced exactly a year later, on heavy-duty trucks and buses. The first phase, beginning with manufacturing model year 2004, required reductions in emissions from passenger cars, light-duty trucks, and for the first time ever, sport utility vehicles were required to meet the same tougher standards as cars. Gasoline was required to be 90 percent cleaner through a reduction of the sulfur content. These standards -- commonly referred to as Tier II -- required passenger vehicles be 77 to 95 percent cleaner than those on the road in 2001. The unprecedented action would ultimately mean that Americans would benefit from the clean air equivalent of removing 164 million cars from the road.

Equally important, EPA designed the rule to provide substantial flexibility for the automobile and refining industries, including averaging across manufacturers' fleets and recognizing that clean diesel fuels, diesel cars and light-duty trucks could become an important part of the country's efforts to increase fuel efficiency and combat greenhouse gas emissions. As a result of the extensive, high-level stakeholder negotiation process, not one major lawsuit was filed challenging these regulations.

On December 21, 2000, the Administration announced the second phase of its program, which called for bus and heavy-duty truck tailpipe emission standards and the removal of sulfur from diesel fuel to a level of 15 parts per million from more than 500. Key to this action was the use of the combined "system" approach. By requiring a 97 percent reduction of the sulfur content in diesel fuel, scheduled to begin in 2006, the rule enabled the use of advanced emission control technologies on diesel trucks and buses. For the first time ever, heavy-duty trucks and buses would be required to have pollution control devices similar to the catalytic converters that had been required on cars for the past 25 years. Full implementation would be complete by 2010.

As a result of another extensive, high-level participatory process, many stakeholders supported the final requirements, including environmentalists, public health experts, state officials, as well as some industry leaders. EPA was not, however, able to achieve the same level of consensus on these standards as it had on the 1999 Tier II automotive standards.

Cleaner Fuel

In addition to the low sulfur cleaner fuel requirements adopted by the Administration in the clean car, truck and bus rules, the 1990 Clean Air Act Amendments required EPA to issue regulations mandating that gasoline be "reformulated" to reduce the vehicle emissions of

ozone-forming and toxic air pollutants. This reformulated gasoline (RFG) was required by Congress to be sold in the most polluted areas of the country. Subsequently, other areas "opted-in" to the program as a cost-effective means of meeting the existing ozone standard. In an uncharacteristic level of specificity, and in an effort to guarantee and expand ethanol use in gasoline, Congress dictated the level of oxygenate to be included in RFG. Although the requirement was controversial at the time of its original adoption by Congress in 1990, it only grew more contentious, partly due to the inevitable competition between the oil industry and the ethanol manufacturers. (The two most commonly used oxygenated fuel additives were methyl tertiary butyl ether (MTBE) and ethanol. These oxygenates increased the combustion efficiency of gasoline, thereby reducing vehicle emissions of carbon monoxide.)

In the winter of 1992-1993, phase one of the reformulated fuels program (RFG-I), which included the oxygenates required by Congress, was used in more than 30 cities with carbon monoxide pollution problems. By 1995, the cleaner-burning RFG program had grown and was introduced year-round in about 30 percent of the U.S. gasoline supply. The second phase of the reformulated fuels program (RFG-II) began in January 2000. The benefits of RFG-II were predicted at the time to ultimately achieve the clean air equivalent of taking more than 16 million vehicles off the road.

RFG-I began with heightened controversy over its cost. While the cost controversy dissipated after a few months, the debate around RFG-II continued. In the early summer of 2000, sharply rising gasoline prices created a crisis that prompted some to blame the reformulated gasoline program. The primary concern was the price difference between the RFG and conventional gasoline, which grew to 40 cents in parts of the Midwest.

EPA concluded that gasoline supplies in the region were tight but adequate and that the cost of making the cleaner-burning RFG could not be responsible for the high price increases. This conclusion was supported by the fact that, throughout the country, from the beginning and then in the Midwest by late summer, the price increment was at or below EPA's and others' estimates of a 4 to 8 cents price difference per gallon. Prices for the cleaner-burning gas in the Midwest declined dramatically after Vice President Gore called for a Federal Trade Commission (FTC) investigation on the high prices. The FTC's interim report, issued in July 2000, indicated that the clean-burning gas program was unlikely to have been the source of the price spikes. The final report was expected in 2001.

Another challenge faced by the reformulated gasoline program was the use of MTBE. While MTBE had been used as a fuel additive prior to the Congressionally imposed oxygenate requirement in the RFG program, refiners chose to meet the oxygenate requirement of the Clean Air Act in the majority of instances by using MTBE. However, as MTBE use increased, traces of it began to show up in public water supplies. Studies indicated that once in groundwater, MTBE dissociated easily from gasoline and traveled much more quickly.

Public concern over the use of MTBE in gasoline to reduce air pollution posed significant challenges for EPA. Critics pointed to MTBE use as an example of an Agency so intent on solving one problem (air pollution) that it created another problem (water pollution), ignoring the fact that the increased use of MTBE was a Congressional mandate, not an EPA decision. In June 1999, EPA's Blue Ribbon Panel on Oxygenates in Gasoline concluded that concerns about MTBE contamination of water were driven primarily by its smell and taste and that in only rare cases were MTBE levels above health standards. Most important among the Blue Ribbon Panel's

package of recommendations was a call for the repeal of the two-percent oxygenate requirement contained in the Clean Air Act, while maintaining the current air quality benefits of cleaner-burning gasoline.

In March 2000, the Clinton Administration, in a press conference with the Administrator and Agriculture Secretary Dan Glickman, sent legislative principles to Congress, which included eliminating the use of MTBE; preserving the air quality benefits of cleaner-burning gasoline; and amending the Clean Air Act to remove the oxygenate requirement, while at the same time establishing a national standard for the use of renewable fuels in gasoline. In the last few months of the Clinton Administration, several Members of Congress introduced bills to address the issue, but Congress failed to pass legislation. EPA also began the process of exploring whether MTBE could be banned as a toxic substance under the Toxic Substances Control Act. However, because the analyses required for the process would require many years to complete, the Administration continued to call on Congress to address MTBE through appropriate Congressional action.

Finally, under the Clinton Administration the United States saw the complete phase out of lead in gasoline, an essential part of the Agency's far reaching efforts to protect children from the very real and sometimes permanent effects of lead poisoning. Building on EPA's work over many years, in 1994, Administrator Browner called for a global phase-out of lead in gasoline. By 1999, 78% of all gasoline sold world-wide was unleaded. EPA met its goal to reduce the global use of leaded gasoline below 1993 levels well in advance of the target date of 2005. Due in large part to U.S. efforts, China and at least 24 additional countries made significant commitments to phase-out leaded gasoline.

Toxic Air Pollution

In the twenty years preceding the Clinton Administration, EPA adopted only seven toxic air pollution standards. From 1993-2000, EPA issued nearly 50 standards to reduce toxic air emissions from industries such as coke ovens, petroleum refineries, chemical plants, dry cleaners, and municipal, hazardous, and medical waste incinerators. These pollutants – heavy metals such as mercury, volatile chemicals such as benzene, and combustion byproducts such as dioxin – were known or suspected to cause cancer, birth defects or other serious health and environmental problems. EPA estimated that the standards when fully implemented would eliminate over 1 million tons of air toxics and 1.5 million tons of smog-causing volatile organic compounds every year.

For the first time, EPA also took steps to study and address the link between air toxics and poor water quality. EPA's *Great Waters Report to Congress* concluded that the air toxics, particularly mercury, dioxins, furans, PCBs, metals, certain pesticides and nitrogen-containing compounds, drifted on the wind and then fell into water bodies, creating a significant contribution of toxic chemicals and nitrogen compounds to the Great Lakes, Lake Champlain, the Chesapeake Bay, and coastal waters.

In addition, as required by the Clean Air Act, EPA issued a report to Congress on hazardous air pollutants in February 1998. Its research looked at all toxic pollution emitted by electric power plants and concluded that mercury posed the greatest concern to public health. Already, evidence showed that exposure to mercury was associated with both neurological and developmental damage in humans. Eating fish contaminated by mercury emissions from power plants and other sources was the primary route of exposure.

The Clinton Administration had already taken a number of actions to reduce mercury air pollution, including significantly reducing emissions from municipal waste combustors, medical waste incinerators and hazardous waste combustors. On December 14, 2000, Administrator Browner took another important step to address mercury emissions when she announced that EPA would regulate mercury emissions from power plants. The decision called for the regulations to be proposed by 2003 and for final rules to be issued by 2004.

Despite the many advancements, the challenge of addressing toxic pollutants was one the Administration recognized as ongoing. Work continued on issues related to measuring the cumulative impacts of many pollutants, as opposed to just one, as well as determining what additional reductions were necessary to safeguard public health.

Regional Transport of Smog

In the early part of the Administration, emerging science indicated the significance of smog-causing nitrogen oxide that drifted across state boundaries in the eastern U.S., causing pollution in states far downwind from the original source of the pollution. In coalition with the Environmental Council of States, EPA set up the Ozone Transport Assessment Group (OTAG) in May 1995 that included 37 states, the District of Columbia, EPA, industry representatives and environmental groups. Through a two-year consultative process, OTAG conducted state-of-the-art modeling to improve understanding of the interstate ozone transport problem in the eastern U.S. and developed a series of recommendations on regional nitrogen oxide controls.

In the midst of the OTAG process, EPA received petitions from several states requesting that EPA directly regulate specific upwind sources in order to mitigate the transport of nitrogen oxide into their states. In October 1998, EPA responded to OTAG's recommendations by issuing

the Nitrogen Oxide State Implementation Plan Call, known as the “NO_x SIP Call.” The plan required states across the eastern United States to reduce nitrogen oxide emissions from sources within their borders, primarily coal-fired electric power plants and industrial boilers. It was estimated at the time that the NO_x SIP Call would reduce smog-forming emissions by about 1 million tons annually.

A coalition of industry and states sued EPA, but the Court of Appeals for the D.C. Circuit largely upheld EPA’s rule on March 3, 2000, and later that summer required 17 of the 19 affected states and the District of Columbia to submit their revised plans to address interstate transport of nitrogen oxide by October 2000. Pollution controls had to be in place by May 2004. EPA determined that the most cost-effective way to meet the SIP Call would be by limiting power plant emissions through a regional cap-and-trade program, though states were free to pursue other strategies.

Visibility in National Parks

In addition to its public health consequences, air pollution was also robbing the public of many of the scenic vistas in its national parks. In the eastern U.S., where natural conditions would lead to a visual range of about 90 miles, the range had shrunk to about 15 to 25 miles. In the western U.S., where pristine environments and less humid conditions should have meant a visual range of about 140 miles, it had shrunk to about 35 to 90 miles. Since the haze that impeded visibility was often caused by sulfur dioxide and soot, which traveled hundreds of miles, EPA approached the issue on a regional basis. The first success was the Grand Canyon Visibility Transport Commission Report, in June 1996.

On Earth Day 1999, Vice President Gore announced new standards to restore visibility in National Parks and Wilderness Areas back to their natural conditions. The standards required for the first time ever that many of the “grandfathered” or previously exempted power plants install pollution controls. Initial plans from the states were to be completed between 2003 and 2008. They also required the grandfathered plants to have best available retrofit control technology installed between 2013 and 2018. The long-range goal of the initiative was ultimately to restore visibility to pristine conditions by 2064.

Acid Rain and Stratospheric Ozone

Two of the driving issues during the reauthorization debate on the 1990 Clean Air Act Amendments had been acid rain, which resulted in damaged forests and lakes in the northeast, and the depletion of the stratospheric ozone layer, which absorbs the sun’s ultraviolet rays.

In both instances, Congress gave explicit direction to EPA on how to address the issues, embracing innovative techniques for solving pollution problems.

The centerpiece of the Acid Rain Program was an innovative, market-based sulfur dioxide “cap-and-trade” program, which set pollution limits and allowed companies and facilities to trade credits to achieve the most cost effective pollution reductions. Early in the program, day-to-day management of the trading program was transferred by EPA to the Chicago Board of Trade. The program was widely viewed as successful for a number of reasons, including the fact that it resulted in both significant reductions in pollution control costs beyond what anyone had anticipated and unprecedented compliance. As the program’s success continued, many in Congress and industry had begun to believe that the emissions credit trading model could be effectively used to combat nitrogen oxides and greenhouse gas emissions.

Another early success story of the Clean Air Act and business ingenuity was the repair to the ozone layer that was accomplished by the virtual elimination of chlorofluorocarbons (CFCs) at a much lower cost than initially projected. The upper ozone layer acted as a filter for the steady stream of ultraviolet radiation generated by the sun. A decrease in the ozone layer meant an increase in skin cancers, cataracts, suppression of the immune system and damage to ecosystems.

In 1993, EPA facilitated the expedited phase out of the use of the chemicals by establishing a national refrigerant recycling program to enable a smooth, cost-effective transition to non-ozone-depleting substances. In 1994, EPA launched a program to identify, review and approve safe alternatives to ozone depleting substances and approved almost 200 alternatives, eliminating more than 1.2 million metric tons of the substances' uses. EPA also played an instrumental leadership role internationally, funding 2,500 ozone protection projects in over 120 developing countries through the Multilateral Fund and working with Russia and China.

By the end of 1995, the U.S. and other developed countries had successfully phased out the production and import of substances that presented the greatest danger to the ozone layer – chlorofluorocarbons (CFCs), methyl chloroform, carbon tetrachloride, and halons – while assuring continued limited production for essential uses such as metered-dose inhalers utilized by asthma sufferers.

Indoor Air

In January 1993, EPA released a report on the health risks of second-hand smoke. It was the first ever comprehensive review of all of the relevant science in the area, and it found that second hand smoke posed a significant health risk to non-smokers. While EPA never banned smoking in public places, the report and the large-scale outreach campaign that followed

prompted many businesses, states and cities to ban smoking in public places. Predictably, the tobacco industry sued. They prevailed in the lower court and on June 7, 1999 an appeal was filed with the U.S. Court of Appeals 4th Circuit. As of the end of the Administration no opinion had been rendered.

Radiation

Throughout the eight years of the Clinton Administration, there was much public debate on the appropriate standards for the disposal of radioactive materials. On May 13, 1998, after six years of study and three rulemakings, EPA approved the first deep geological repository for permanent disposal of radioactive waste, called the Waste Isolation Pilot Plant (WIPP). The commercial radioactive waste depository, known as Yucca Mountain, spurred intense debate in Congress about who should set the standards. Some argued that the work should not be done by EPA but rather the Nuclear Regulatory Commission. Despite a vigorous floor fight led by the senators from Nevada in support of EPA, the Nuclear Waste Policy Amendments Act of 2000 limiting EPA's authority to set the Yucca Mountain standards passed. President Clinton vetoed it on April 25, 2000. In the final days of the Administration, EPA sent to OMB for interagency review its final decisions on appropriate standards for groundwater protection and radiation exposure from all pathways.

Chapter 2

Protecting Public Health & the Environment: Ensuring Cleaner, Safer Water

During its first 20 years, EPA focused its water pollution efforts largely on controlling the most flagrant and visible sources of discharges of pollution into the nation's waters from discrete "point sources," like discharge pipes. Under the Clinton Administration, the focus of EPA's water efforts expanded to recognize that the second generation of clean water progress would be best achieved through a place-by-place approach and standards should be set reflecting the needs of a specific water body. EPA's work on water saw a rare legislative victory with the passage of the New Safe Drinking Water Act in 1996.

The place-based model was built on fundamental principles that called for strong public support and engagement, solid scientific knowledge of local problems, and shared management responsibility among federal, state, and local interests. It shaped the Clinton Administration's approach to solving large-scale environmental problems in places like the Pacific Northwest and the Florida Everglades. It guided smaller-scale efforts in places like the Charles River in Boston, Massachusetts and the Rouge River in Detroit, Michigan. It also formed the foundation of the Administration's American Heritage Rivers initiative, its Clean Water Action Plan, and the Total Maximum Daily Loads Program.

In early 1993, shortly after Administrator Browner took office, the City of Milwaukee, Wisconsin experienced the largest drinking water contamination problem documented in the nation's history. Approximately 400,000 people became ill from the waterborne parasite, *Cryptosporidium*. At least 100 deaths were attributed to the contamination. This tragic event served as an alarming wake-up call to the nation. It sparked a series of unprecedented initiatives

over the next eight years to protect public health, including passage of the new Safe Drinking Water Act. The Act strengthened the standard setting process, required children to be protected, guaranteed annual reports to the public on the status of their tap water and created the first ever federal fund for improving local drinking water systems.

Clean Water Act Reauthorization

The 1972 Clean Water Act required EPA to develop uniform regulations based on the best available technology to control pollutants for virtually every major industrial and wastewater treatment plant in the country. The states, in turn, were expected to issue permits to these pollution sources and to take enforcement action where necessary to achieve environmental objectives. EPA was expected to ensure consistency across the states.

EPA's twenty-year focus on point sources of pollution was tremendously successful in improving water quality. Yet by the 1990s it was clear that this strategy alone would not be enough to achieve the Clean Water Act's 1972 goal of ensuring that waters throughout the nation would become "fishable and swimmable." Water quality problems had become much more complex. While point sources were still the primary contributors of some types of pollutants, such as toxins, widespread habitat loss and polluted runoff from diffuse sources like city streets and agricultural fields posed even greater threats to water quality in many parts of the country.

In 1993, with the existing federal Clean Water Act set to expire, the new Clinton Administration produced a lengthy set of recommendations to the 103rd Congress to improve water quality throughout the country. The "Green Book," as it became known, focused on controlling polluted runoff from urban and rural lands, encouraging place-based watershed management, and maintaining federal financial support to states and communities. While the

Senate Environment and Public Works Committee passed a Clean Water Act reauthorization acceptable to the Administration, neither the full Senate nor the House of Representatives acted on the legislation. In the first session of the 104th Congress, in response to the Senate Committee action in the 103rd Congress, the House passed its version of a Clean Water Act reauthorization, H.R. 961. With intense public and media interest, the House floor debate on H.R. 961 became the first of many high stakes conflicts on the environment between the Administration and the Republican Congress.

During floor consideration of the bill, a number of amendments offered by moderate Republicans passed with Democratic support by narrow margins. The coalitions created around the debates over H.R. 961 were seen frequently during debates over other legislation throughout the Clinton Administration. Although H.R. 961 passed the House of Representatives in 1995, the bitter floor debate signaled the end of Congressional action on the Clean Water Act reauthorization. In many ways, the rancorous debate stimulated a new understanding within the Administration about the importance of executive action. H.R. 961 demonstrated just how polarized environmental issues could become in the U.S. Congress.

Safe Drinking Water Act Reauthorization

In a landmark speech to the National Association of Towns and Townships in September 1993, Administrator Browner outlined a series of needed reforms to the federal Safe Drinking Water Act (SDWA) to better protect public health. Her speech relied extensively upon an in-depth study of drinking water systems completed by EPA during the previous months.

The 10 major reforms advocated by the Administration provided the basis for months of negotiations between Congressional members and staff, stakeholders and EPA staff. Significant

progress in the 103rd Congress ultimately allowed the 104th Congress to enact a new SDWA with overwhelming bi-partisan support. President Clinton signed the bill into law on August 6, 1996.

In response to Milwaukee's experience with *Cryptosporidium*, the new SDWA directed EPA to establish new filtration and disinfection standards for all drinking water systems in the nation. President Clinton announced the first round of these new standards in 1998 at an event in Rhode Island with Senator John Chafee (R-RI), the Chairman of the Senate Environment and Public Works Committee.

The new SDWA also embodied Administrator Browner's philosophy of empowering citizens with information by requiring that water systems report regularly on their drinking water quality through Consumer Confidence Reports. President Clinton underscored the importance of the new reports by marking the new requirement with a California appearance at a drinking water plant in 1998. And for the first time ever, billions of dollars in federal assistance were provided to help communities improve drinking water quality.

Place-Based Approach

The place-based or community-based philosophy of solving water pollution problems began to take shape at the very beginning of the Clinton Administration. In early 1993, President Clinton led a high-profile summit of cabinet members to the Pacific Northwest to resolve legendary conflicts dealing with fish, forests and endangered species. Also, in early 1993, Administrator Browner initiated a lower-profile action in California under the Clean Water Act's standards program. The purpose was to bring various interests together to solve water quality problems in the San Francisco Bay Delta. That early action ultimately resulted in the creation of a joint federal and state management organization, known as CALFED, which seven years later

produced a comprehensive, multibillion dollar strategy to meet the long-range water needs of California.

During the same time period, Administrator Browner also asked other senior managers to explore ways of promoting community-based environmental protection. Through an extensive internal process involving numerous headquarters and regional offices, the Agency produced what became known as the Edgewater Consensus, which outlined the organizing principles for place-based management at EPA. This process supported a number of regional office reorganizations and it sparked a number of initiatives throughout the nation.

To reflect the new consensus, EPA's Region 1 Office in Boston, Massachusetts reorganized into groups representing each of their six states, in addition to the traditional media responsibilities for air, water and waste. This reorganization allowed Region 1 to better address the environmental challenges faced by its six industrially, economically and environmentally diverse states. Region 1 also launched its Clean Charles River Initiative, which successfully brought local interests together in an aggressive campaign to meet the "swimmable" goals of the Clean Water Act. As a result of EPA's leadership, bacterial pollution dropped sharply and many parts of the River became safe for swimming.

The place-based model also resulted in significant accomplishments on behalf of the Great Lakes, the Gulf of Mexico, the Chesapeake Bay and the Everglades. In March 1995, Administrator Browner signed the Great Lakes Initiative, which established the first-ever water quality standards for toxic substances in all five Great Lakes. In June 2000, EPA joined three Chesapeake Bay states and the District of Columbia in establishing first-ever numeric goals for protecting land throughout the watershed. And in January 2001, President Clinton submitted a

consensus action plan prepared by federal and state governments for the Gulf of Mexico, establishing first-ever numeric targets for reducing nutrient pollution from the Mississippi River.

The Total Maximum Daily Load Program

The success of the Great Lakes, Chesapeake Bay and other emerging place-based initiatives led EPA to revise the Total Maximum Daily Load (TMDL) Program, which established pollution budgets to support local action to improve water quality. When the program was originally conceived during the initial passage of the Clean Water Act in 1972, it sought to evaluate the level of pollution a particular water body could safely maintain -- the total maximum daily load -- for clean water goals to be met. Although Congress had envisioned that the states would set TMDLs, their failure to act led to more than 35 lawsuits against EPA pursuant to its responsibility under the Clean Water Act.

In 1996, EPA convened a federal advisory committee to develop a series of consensus recommendations to improve the existing TMDL regulations. President Clinton announced EPA's proposed new TMDL regulations in a radio address in August 1999. EPA received more than 40,000 comments on its proposal. The proposal was also the subject of numerous Congressional hearings.

Intense opposition from the agricultural and forestry special interests resulted in a rider in the FY2000 omnibus supplemental appropriations bill prohibiting EPA from finalizing the TMDL rule and from implementing the rule in FY2000 and FY2001. In a bold move demonstrating support for the program, President Clinton directed EPA to finalize the TMDL rule before he signed the bill and the rider prohibiting finalization of the rule took effect. Administrator Browner signed the new TMDL rule on July 11, 2000.

The Clean Water Action Plan

To commemorate the 25th anniversary of the Clean Water Act, on October 18, 1997, Vice President Gore directed the EPA and the U.S. Department of Agriculture to work with other federal agencies to develop a comprehensive plan to fulfill the “fishable and swimmable” goals of the Clean Water Act. The result was the Clean Water Action Plan, announced by President Clinton on February 19, 1998. The Action Plan, which included more than 100 individual action items, was also built on the place-based philosophy of supporting watershed protection through the collaborative work of many federal agencies.

One of the individual action items included in the Clean Water Action Plan was the development of the Unified National Strategy for Animal Feeding Operations. A joint product of the EPA and the U.S. Department of Agriculture, the strategy was announced on March 9, 1999, in a White House ceremony with Vice President Gore, Administrator Browner and Department of Agriculture Secretary Dan Glickman. The strategy established a national goal that called for all animal feeding operations throughout the country to implement nutrient management plans to control water pollution from their operations. The comprehensive strategy employed a range of both voluntary and regulatory tools.

As a result of the Clean Water Action Plan, EPA and the National Oceanic and Atmospheric Administration (NOAA) developed new commitments to strengthen coastal non-point source pollution control programs administered by their agencies. The U.S. Forest Service and the Bureau of Land Management issued a new policy statement to improve water quality on federal lands consistent with the standards of the Clean Water Act. Additionally, virtually all states participated in the Clean Water Action Plan process, which was responsible for a host of

significant accomplishments, such as Unified Watershed Assessments, which identified priority watersheds in need of restoration.

Strong Support for States and Tribes

Despite significant budget constraints, EPA provided unprecedented increases in grant funding to the states and tribes. In 1992, state and tribal funding for base water programs and non-point source pollution control was \$184 million. In 2001, it was \$503 million, an increase of more than 270 percent. By the end of the Administration, funding for states to upgrade drinking water systems totaled \$3.6 billion and EPA proposed water quality standards for tribal waters.

EPA also changed how it related to states and tribes by negotiating new agreements for sharing responsibilities in achieving environmental and public health goals. EPA created the National Environmental Performance Partnership System (NEPPS) for states and Tribal Environmental Agreements (TEAs) for tribes, which included specific, tailored commitments to improve implementation of the Clean Water and Safe Drinking Water Acts. Agreements under NEPPS and TEAs were reached with dozens of states and tribes. However, the complexities associated with managing many different programs with a variety of different performance measures limited ultimate success of these agreements.

Reinventing Environmental Protection

From the very beginning, the Clinton Administration directed every federal agency to produce results that “work better and cost less.” The Office of Water’s reinvention strategy focused on modernizing information systems, reducing paperwork burdens and promoting regulatory innovation.

The information revolution that began to change the way America worked in the 1990s had a fundamental effect on EPA as well. The American public expected EPA to provide timely, high quality information about the environment, in addition to the Agency's more traditional regulatory responsibilities. In response to these demands, the Office of Water modernized many of its information systems and provided much greater public access to information, which was organized in more useful ways. In the Water program, EPA created the "Surf Your Watershed" Web site, which organized environmental information geographically to allow people to learn about issues in their communities. EPA also initiated new programs to provide public information on beach water quality, drinking water quality and the overall health of local waterways.

Chapter 3

The Superfund and Brownfields Programs

In his first State of the Union Address, President Clinton elicited rousing applause when he called for reform of the Superfund program, saying he would "... like to use Superfund to clean up pollution for a change, and not just pay lawyers." The applause he garnered underscored the nation's frustration with a program historically criticized for moving too slowly and focusing on studies rather than cleanups. The President, as Governor of Arkansas, had confronted his own difficulties at the Vertac site. The wide support the program had enjoyed after it was passed in 1980 had faded.

In response to President Clinton's call to action, EPA adopted a series of reforms that completely transformed the program. Central to the reforms was a new responsiveness to communities based on the Clinton Administration's themes of community, opportunity and responsibility. The Administration recognized that involving and empowering a community -- oftentimes through assistance grants -- would lead to far better results. Providing new tools and resources expanded the choices available to communities so that they could chart their own paths and not only be part of cleaning up the sites but also share in their redevelopment.

By the end of the Administration, the program had completed 602 new cleanups, among them Vertac and the Times Beach dioxin site -- more than three times as many construction cleanups than in the prior 12 years of the program combined. Times Beach, one of the most recognized sites, became a state recreational areas. Other cleaned up sites became little league baseball fields, soccer grounds, and shopping malls. The successful reforms ultimately culminated

in the program's removal from the General Accounting Office's list of ten worst government programs by the end of the Administration.

Superfund History

The Superfund program had a difficult time from its inception. In the mid 1980s, Congressional investigations revealed numerous contracting irregularities, and a scandal in its early years led to the resignation of several top political officials at the Agency. The difficulties were coupled with all the usual complications of a new program -- creating new rules and regulations, hiring and training a skilled workforce, and developing new technology to clean up sites. Compounding the problems was the endless litigation led by private parties as they sued the government and each other over cleanup costs and liability. By the end of 1992, only 155 site cleanups had been completed.

A reform of Superfund was imperative. The Administration proceeded on a two-prong course of pursuing legislative and administrative reforms that would make the program work faster, fairer and more efficiently.

Superfund Reauthorization

From the beginning of the Administration, legislative reauthorization and reform of the Superfund program were identified as primary goals. Many groups had begun the work of proposing legislative changes. The Administration joined in this effort and even undertook its own broad stakeholder process. EPA solicited input from public advocacy groups, industry groups and economic development associations.

Within the Administration, there was much disagreement and debate, including a presentation of opposing views by Treasury Secretary Lloyd Bentsen and Administrator Browner

on joint and several liability – the “polluter pays” provisions. The argument that those who caused the pollution should pay their fair share of the cleanup ultimately prevailed. Other discussions focused on the level of protections – “how clean is clean?” The Administration recognized that public health protections were key to the program – that all communities should receive equal protection, but in some instances the future land use would be a part of how those protections were afforded and thus should be considered. In a future neighborhood with kids, all of the contaminated soil had to be removed; on the other hand, a future parking lot with six inches of asphalt contained the pollution and the public was equally protected. Consideration of future land use was a significant and important change.

On February 3, 1994, a consensus on Superfund reform legislation was reached and Administrator Browner unveiled the Clinton Administration’s Superfund Reform bill -- a package of reforms that preserved the principles of the original law and recognized the need for flexibility, fairness and efficiency. While the bill earned overwhelming bipartisan Congressional support and endorsements from groups as diverse as the Sierra Club and the Chemical Manufacturers Association, final passage did not occur and subsequent efforts at reauthorization were never successful. The House version of the original Administration bill ultimately died in the Rules Committee over whether or not the private cleanup dollars should be subject to Davis-Bacon wage requirements. In the Senate, the bill was prepared for floor debate but was never actually taken up. In response to complaints from Governors, Congress did adopt a requirement that before EPA could add a toxic waste site, the Governor of the state had to concur. While new site discoveries were diminishing, few Governors failed to concur with EPA’s findings.

Administrative Reforms

While the Administration actively worked to enact Superfund reform legislation, efforts also were underway to make administrative reforms in seven categories, which included cleanups, enforcement, risk assessment, public participation and environmental justice, economic redevelopment, innovative technology, and state and tribal empowerment.

Work moved swiftly and EPA announced the first of three rounds of administrative reforms in June 1993. The first round responded to stakeholder (community and responsible parties) concerns about the Superfund program. Primary was expediting site cleanups and increasing enforcement fairness. The result was reduced litigation, earlier settlements that were fairer in terms of financial responsibility of the responsible parties, and a fairer application of Superfund's liability system. Streamlining the process to resolve claims at Superfund sites was key to accelerating the cleanups and increasing the pace at which contaminated properties could be moved back into viable economic use -- a critical first step toward many development projects. EPA introduced the second round of reforms in February 1995. This round strengthened the program by testing many of the innovations embodied in the Superfund proposed legislation, including economic redevelopment and innovative technology, enhanced public involvement, and enhanced roles for states and tribes. Finally, EPA announced the third round of reforms in October 1995, which consisted of 20 measures that promoted cost-effective cleanup choices, further reduced litigation and transaction costs, and ensured that states and communities were more informed and involved in cleanup decisions.

The administrative reforms proved to be very successful in making the program faster, fairer, and more efficient. On average, cleanup time was cut by 20 percent; thousands of small

parties were removed from the liability scheme; costs were reduced on average by 20 percent; savings of approximately \$1.5 billion were realized by modernizing cleanup remedies; and \$16 billion in savings because the parties responsible for the pollution at the sites performed or paid for approximately 70% of the cleanup costs. By the end of the Clinton Administration, work was completed or underway at more than 90 percent of the remaining sites.

Brownfields Program

One of the Administration's greatest environmental achievements for poor and oftentimes minority communities was the creation of the EPA Brownfields Program. Begun in late 1993 as three small pilot grants, the popular program ultimately affected thousands of communities and individuals across the country.

Toward the end of the 1980s and the beginning of the 1990s, the Agency began to notice a trend in development patterns. Acres and acres of land in America's urban centers with pre-existing infrastructure were lying unused, while developers had begun razing vast tracts further out in the suburbs. Existing infrastructure sat unused, while new roads, sewer systems, water mains and power lines were built to accommodate the new outlying developments. Jobs were leaving the urban areas, further eroding their tax base. Superfund was part of the problem. Businesses that would have been tempted to develop sites were scared away by potential Superfund liability. State and local governments also hesitated to take possession of the sites for the same reasons.

Working within the existing Superfund law, EPA created the Brownfields Redevelopment program to encourage businesses and local governments to redevelop the fallow industrial tracts of land, providing benefits to residents, local governments and businesses. The first Brownfields

assessment grant of \$200,000 was awarded to Cleveland, Ohio for a pilot project to assess the extent of actual contamination at the site. In Cleveland and elsewhere, it was soon determined that most of these sites contained either no contamination or contamination at such low levels that threats to public health could be handled cost-effectively.

In January 1995, following experiments in other cities, the Administration announced its new Brownfields program and committed to funding 50 additional Brownfields Site Assessment Pilot Projects of up to \$200,000 each. EPA also removed one of the legal obstacles to development of Brownfields sites by taking more than 32,000 sites off the Superfund master inventory. Taking these low-priority sites off the Superfund master list relieved potential developers of unnecessary red tape, removed the stigma of Superfund liability and put sites on track for redevelopment. In addition, President Clinton signed a law in September 1996 that protected lenders and government entities by clarifying which of the Superfund liability provisions applied to Brownfields cleanups.

Starting with that initial grant, Cleveland eventually leveraged \$4.5 million in other public and private funds for environmental cleanup and redevelopment. New businesses located on the site, more than 180 new jobs were created and payroll tax base improvement alone netted more than \$1 million for the local economy.

By the end of the Clinton Administration, EPA had funded 362 Brownfields Assessment Pilots. These assessment grants did not pay the cleanup bills, but rather provided seed money for the environmental site assessment and planning that allowed communities to attract investments for revitalization and sustainable growth.

The City of Dallas, Texas started with a \$200,000 assessment grant and leveraged more than \$840 million in public and private development funds, redeveloping six sites and reclaiming more than 1,200 acres of Brownfields. Residents benefitted from a new recreation facility, a housing and shopping development, an environmental training and technology center and hundreds of new jobs.

EPA's Brownfields Pilot award to Buffalo, New York enabled the city to target a former steel site that developers had avoided for more than a decade. Once the city and the site's former owners funded an \$800,000 cleanup effort to remove oil-soaked dirt, a local bank funded construction of a new \$15 million, 763,000 square-foot greenhouse facility and 42,000 square-foot tomato packing plant. By early 2001, more than 175 new jobs had been created at this facility, which produced 8 million pounds of hydroponic tomatoes per year.

As the assessment grants proved successful, the next set of challenges in addressing the sites became apparent. Mayors came to EPA with new issues that included a lack of cleanup funds, a lack of qualified persons to clean up sites, and lack of Federal coordination. EPA met the challenge by providing new tools for Brownfields sites. The site assessment program the Administration began in 1995 ultimately expanded into four broad, overlapping categories of work: (1) providing cooperative agreements for Brownfields assessment and cleanup pilots; (2) clarifying liability and cleanup issues; (3) building partnerships and outreach among federal agencies, states, municipalities and communities; and (4) fostering local job development and training initiatives.

The Brownfields Cleanup Revolving Loan Fund (BCRLF) Demonstration Pilots, begun in September 1977, awarded \$350,000 grants to 23 states, cities and towns to help them develop

their own revolving loan fund to provide low-interest loans for Brownfields. By the end of the Clinton Administration, the BCRLF program had awarded 104 grants and committed a total of \$64.8 million for Brownfields cleanup and redevelopment revolving loan funds. The program bridged the gap between the initial environmental assessments and the actual development of Brownfields properties by providing capital to fund cleanup efforts. Loan repayments provided a continuing source of capital for new loans, increasing the number of Brownfields cleanups over time.

To create job opportunities for residents living near Brownfields sites -- and to ensure well-trained workers for cleanup and redevelopment activities -- EPA also initiated the Brownfields Initiative Job Training Program.

Under the program, public and private institutions could receive grants of up to \$200,000 more than two years for workforce development activities related to assessment, cleanup and redevelopment of Brownfields properties. By the end of the Clinton Administration, EPA provided approximately \$6.9 million in grants to 37 communities impacted by Brownfields to train their residents to work in the environmental field. The Job Training grants provided funding for the handling and removal of hazardous waste materials, using innovative technology, and training in such areas as sampling techniques and lead and asbestos removal.

The training allowed residents around Brownfields -- where unemployment was often high -- to find well-paying jobs while cleaning up their communities. In addition, the grants provided funds for outreach and partnerships with environmental consulting companies that committed to hiring graduates of the program.

Throughout the development and expansion of the Brownfields program both the President and Vice President played significant roles. President Clinton persuaded Congress in the Taxpayer Relief Act of 1997 to adopt a \$1.5 billion tax incentive program to help revitalize some 14,000 additional Brownfields sites. Under that law, as they already could in Superfund cleanup, businesses could write off as expenses the costs of cleaning up Brownfields in the year in which the costs were incurred, rather than capitalizing such costs over the life of the property, as had been the rule.

In May 1997, Vice President Gore announced the Brownfields National Partnership Action Agenda -- a two-year federal investment of \$300 million for Brownfields cleanup and redevelopment. At that time, the hope was that the federal investment could eventually spur up to \$28 billion in private investment, help create 196,000 new jobs and save thousands of acres of undeveloped "greenfield" areas from development. The next year, in March 1998, Vice President Gore announced the new Brownfields Showcase Community Program and named its first 16 recipients. Brownfields Showcase Communities were the centerpiece of the Brownfields National Partnership. The 16 communities were eligible to receive Administration-wide assistance totaling close to \$28 million in funding and coordinated technical support from more than 20 Federal agencies. These communities in turn would serve as models for future cooperative efforts in cleaning up and revitalizing Brownfields, creating jobs and stimulating local economies. In October 2000, EPA announced 12 additional showcase communities.

By the end of the Clinton Administration, the Brownfields initiative had awarded more than 500 grants to communities nationwide, totaling more than \$164 million. These grants resulted in the creation of nearly 7,000 new jobs and leveraged more than \$2.3 billion in private

investment. For every dollar invested by federal, state and local governments, almost \$2.50 of private investment was leveraged.

Underground Storage Tanks

Except for a few instances, federal regulations prior to 1984 did not address underground storage tank systems. During the 1990s, hundreds of thousands of releases of oil, gas and other chemicals from substandard underground storage tanks were reported. Many of these releases caused serious environmental damage.

By the end of Administration, more than 240,000 leaking tank cleanups had been completed nationwide, an additional 350,000 were underway and 1.4 million leaking tanks had been permanently closed. Equally important, the Agency worked to prevent a new generation of leaking tanks by implementing the December 22, 1998, requirements to meet new tank standards, upgrade or properly close existing substandard systems.

Clinton Library Transfer Form

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