



EPA

New England Regional Office
US Environmental Protection Agency

1990

CELEBRATING EPA'S TWENTIETH ANNIVERSARY



New England Regional Office
U.S. Environmental Protection Agency
Region I

1990 In Review

*Celebrating
EPA's
Twentieth
Anniversary*



1990: Region I Celebrates Twenty Years

The New England office of the United States Environmental Protection Agency is one of ten regional offices around the country



that cooperates closely with state and local governments to implement federal environmental laws. In 1990 we celebrate the twentieth anniversary

of the creation of EPA. Throughout the 1970s and 1980s EPA's responsibilities—both at the national and regional levels—expanded with the passage of major new environmental laws, which were enacted to protect the ground, air, and water.

Today EPA's New England Office administers programs and enforces regulations designed to protect the environments of the six New England states: Connecticut, Massachusetts, Maine, New Hampshire, Rhode Island, and Vermont. As we enter a new decade, we look forward to changes in the way we regard environmental protection: no longer are clean-up and control measures adequate, we are looking for ways to prevent pollution before it occurs.

If you would like more information about EPA Region I and its programs or additional copies of this year in review, contact the Office of Public Affairs, U.S. EPA, Mail Code: RPA-74, JFK Federal Building, Boston, MA 02203, Telephone (617) 565-2713.

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Protecting the New England Environment

Julie Belaga

As my first year as EPA Regional Administrator ends, it is time to look back and measure our accomplishments in terms of how they set the stage for future progress.

This was a year when popularity for the environment reached new highs, not only in New England and the nation, but around



the world. Earth Day 1990 became a dynamic mobilizing force for citizens on every continent to take action for a cleaner global environment. Public support has never been greater and public expectations have never been higher. With the eyes of citizens on us across the

region, I can look back over this year with an enormous sense of pride in the accomplishments of a very talented staff.

Compliance with the nation's environmental laws is critical to the overall strategy for providing for a healthy environment and strong regional economy. In fiscal year 1990, the emphasis on enforcement in the Superfund program produced the highest number of settlements for clean-up of hazardous waste sites in the region's history. Several of our criminal cases established national and legal precedents.

Region I was breaking ground throughout this year with many national "firsts" in enforcement and in protecting vital resources here in New England.

Here are some highlights of a productive year:

■ In March of this year, EPA issued a final determination that prohibits the use of Big River, Mishnock River, their tributaries and adjacent wetlands as a site for a proposed water supply reservoir in Coventry, Rhode Island. If it had been approved, the project would have resulted in the direct loss of at least 575 acres of exceptional wetlands, approximately seventeen miles of free-flowing cold water streams, ten ponds and 2,500 acres

of primarily forested uplands. We were pleased that headquarters concurred with our decision.

■ President George Bush announced that Casco Bay in Maine and Massachusetts Bay have been added to the EPA's National Estuary program. Designation allows for extensive study of these two areas to develop a comprehensive management plan. In early summer, EPA announced the completion of the nation's very first estuary study—Buzzards Bay near Cape Cod. The plan outlines strategies for cleaning up the bay and preventing pollution through local initiatives. I am proud to have this achievement stand as a model for other significant estuarine ecosystems across the country. What we have learned in Buzzards Bay will help us in our four other National Estuaries in the region.

■ An agreement in principal was reached with AVX Corporation of New York for \$66 million in a partial settlement of the New Bedford Harbor Superfund site in Massachusetts. The money paid by AVX will be used to fund the cleanup of the widespread PCB contamination of the harbor, to restore natural resources in the harbor area, and to reimburse expenses already paid by the state and federal government.

■ Connecticut became the first state in the country to receive federal approval for its "Wellhead Protection Plan." Close behind were the five other New England states. Designation affirms that

While we continue to make progress in all areas, what I am most excited about is the enormous successes we are seeing in pollution prevention initiatives all across New England.



safeguards will be put in place for the long-term protection of groundwater resources. It is local zoning that will make the difference. We are the only region in the nation in which all states have approved Wellhead Protection laws.

■ In a first-time-in-the-nation decision, a federal jury returned guilty verdicts on criminal charges against a Massachusetts company and its president for knowingly endangering the health and safety of his employees and the environment under the Clean Water Act. Borjohn Optical Technology, Inc. of Burlington, Massachusetts and its president John Borowski were found guilty after a four-week trial of illegally discharging toxic metal and dangerous chemicals into the sewer system and for endangering company employees as a result.

Twenty years ago when we first got into the business of environmental protection we went about it as any good manager in business would. First, we identified the problem: then we designed a solution that we thought would put an end to it. We developed statutes and regulations that addressed the pollution problem, but these new laws didn't solve it.

Our regulations were written from a single vantage point. We looked at what was coming out of the sewage pipe, the smokestack, and the tail pipe...and made sure that it didn't come out of that pipe any longer.

What we were really doing was playing a game of "Hot Potato" with pollution...the pollution potato. While it no longer went up the stack, we disposed of it as ash

in the ground; or we extracted it from the soil and then incinerated it—up the stack again. The pollution potato was being tossed from the air to the ground, to the groundwater, and back again.

Our collage of laws, each one written with a single purpose in mind, needs now to be integrated into a total management system that protects our precious resources.

Billowing smokestacks are no longer the norm on the horizon, and our rivers don't burn any more. Progress has been made. But we cannot let these successes keep us from seeking lasting solutions. It is time we review the current management system and create one that meets today's need and tomorrow's dream.

This nation, as a society, must begin to integrate pollution prevention into the way we design, build, and regulate, as well as in the way we consume and dispose. We must begin at the drawing board, not the dumpster.

Innovation is the key to progress. When we look back on the decade of the 1990s, we will be judged not on individual cases or single fines, but on our innovations of thought. I want it to be written into history that we were the planners for a future that thought first of how to prevent pollution rather than how to clean it up.

To be truly effective in preventing pollution, every sector of the economy must take part, every person must be involved. Together we will leave a cleaner world for future generations and a culture that thinks first of prevention. ✱

William Reilly,
EPA Administrator,
at Faneuil Hall,
Boston.



Twenty Years of EPA

William K. Reilly

On July 9, 1970—twenty years ago and fewer than three months after the first Earth Day—the process of creating the United States Environmental Protection Agency officially began when President Richard Nixon sent Congress his proposal to consolidate major pollution control programs into a new agency. On December 2, 1970, the agency came into existence.

In celebrating this anniversary, we can take pride in the progress we have made over the past two decades in improving the quality of our air, land, and waters. We have made tremendous progress on many of the worst pollution problems. Yet many problems remain unresolved, and new problems have become evident—often difficult to solve, often global in scope. During the challenging years ahead, the broad advances that the agency has made during its first twenty years provide a strong foundation from which to address future challenges effectively.

In order to prepare ourselves for the formidable array of environmental challenges ahead, we must

strengthen our research program and the scientific underpinnings of our work. We must improve our recruitment and training programs to assure a top quality, culturally diverse work force. We must involve our staff directly in setting goals through strategic planning and in meeting those goals through the teamwork and continuous improvement offered by total quality management. We must develop and apply new and emerging approaches to environmental problems—pollution prevention, market-based incentives, bioremediation and other technologies, risk-based priority-setting, and cross-media and geographically targeted strategies, among others. We must emphasize better outreach to affected constituencies and develop new modes of working with other federal agencies, states and localities, governments abroad, and our many other partners. We need to foster environmental education and pur-

sue initiatives that improve the natural systems on which our well-being depends.

All in all, a tall agenda lies before us. We have the chance to take charge of the agenda and to show that EPA delivers. It's an exciting time to be at EPA..



A Look Back:

Former Regional Administrators Reflect on Their Years in Region I

John A.S. McGlennon, 1971 - 1977



I think everyone associated with the Region I office of EPA can look back with pride at the accomplishments of the agency

over the last twenty years. Although I recall references to a "paper tiger" when the staffs of some thirteen different federal agencies were brought together in early 1971 to become the U.S. Environmental Protection Agency, no one today can doubt the significant contribution that EPA has made toward improving our environment and quality of life.

Our goal during the early years was to respond effectively to congressional mandates included in the Clean Air Act Amendments of 1970 and the Clean Water Act Amendments of 1972. This meant working with the state agencies to develop approvable State Implementation Plans, issuing thousands of NPDES (National Pollutant Discharge Elimination System) permits, and committing hundreds of millions of dollars in construction grants.

We also wanted to show both the environmental and business communities that EPA was a force to be reckoned with. This meant the aggressive use of our enforcement authorities. Our principle was "firm but fair," and I believe this continues to be the standard of the regional office.

Accomplishing these goals meant recruiting additional staff. I am pleased to see that many of the people I enjoyed working with so much still hold key positions in the regional office. These include Steve Ells, Les Sutton, Harley Laing, Ed Conley, Mel Hohman, Lou Gitto, Dave Fierra, and Paul Keough, to name only a few.

There were some real accomplishments during the six years that I was at EPA. But there were also some setbacks. I cannot even remember how many transportation control plans we proposed for the city of Boston. These plans included such radical ideas as limiting parking availability in Boston, required inspection and maintenance of all automobiles, one-way tolls, and incentives for the use of carpools. We even dared to suggest that all employees leave their car at home one day a week. These proposals were met with ridicule and disdain.

Perhaps the most controversial decision that we made was the denial of the discharge permit for the Seabrook Nuclear Power Plant during the presidential campaign of 1976. The issue was whether or not the applicant adequately showed that there would be no adverse environmental impacts from the thermal discharge. Although I eloquently defended the decision at a congressional inquiry, it was reversed by the new administrator.

Nineteen hundred seventy-five and 1976 brought Love Canal and the passage of RCRA (the Resource

Conservation and Recovery Act), giving EPA new authority to manage the treatment and disposal of hazardous waste. As I look back, I regret that we did not recognize the threat of toxic waste to our environment and public health earlier.

I now observe the agency's activities from a different perspective; and no matter how frustrating the Superfund Program is, I continue to be your most loyal supporter. The regional administrators who followed me have continued to aggressively defend the environment, and it is clear that Julie Belaga continues in that tradition. Congratulations for twenty years of proud accomplishments. ✻

John McGlennon is president of ERM New England, an environmental consulting firm in Boston, Massachusetts.

William R. Adams, Jr. 1977- 1981



I was pleased to receive the invitation to "look back" at my experiences at EPA. My service at the agency brought me personal

satisfaction and a sense that I contributed to make the world a better place to live.

It seems impossible that EPA is celebrating its twentieth anniversary. During the past twenty years I have been closely associated with

the agency and its people. I first saw the agency through the eyes of a state administrator, then of the Regional Administrator, and now of an officer in a consulting firm deeply involved in solving the nation's environmental problems. Each experience brought its own perspective, but one common perception remained throughout: EPA's mandate of administering extremely complex environmental laws and regulations is a difficult one.

In fulfilling its mandate the agency is under continual attack from nearly all segments of our society. One group feels that the EPA is too stringent and another feels it is too lax. Everybody has a position: there is no middle ground.

In my view, the agency's mandate has become continually more challenging. Consider, for example, how much easier the Clean Water Act was to administer than today's hazardous waste legislation.

I believe EPA's success—for EPA has been successful—may be attributed to the talents and dedication of its "troops." I recognized the quality of EPA's staff when I was a state administrator, but my real appreciation for them came during my service as Regional Administrator. EPA has set itself apart from other federal agencies by the quality of the staff. The employment of intelligent, educated, ambitious people dedicated to improving the environment began with the original agency staff and continues today.

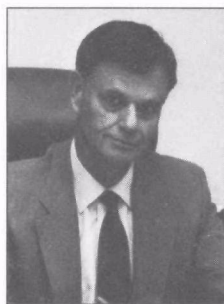
The agency began with a purpose and vision to make the country a safer, better place to live. This dream is frequently attacked by people both in and out of government, but it manages to survive. It survived when the agency's top leadership brought controversy, doubt, and national headlines to bear on the agency.

In my view it was the strength and determination of the "troops" that allowed the agency to survive and regain credibility. It was the people of EPA who never lost their faith and vision, who carried the agency through those difficult times.

It is my prayer that those I served with will continue their leadership and training so that the spirit of today's EPA and the EPA of tomorrow will reflect the same dedicated qualities that made the Region I staff so special to me. ✻

Bill Adams is vice president of ABB Environmental Services, Inc. in Portland, Maine.

Lester A. Sutton, 1981 – 1983



Things were not going well for EPA during the early 1980s when I was Regional Administrator. Those years were the most tumultuous in the history of our agency. What started as an honest difference of opinion on how best to run the agency soon escalated into a conspiracy theory that claimed the administration was out to destroy the agency and the environment. Each day there were headlines grossly exaggerating and distorting every action taken by the agency. The hysteria finally subsided after Anne Gorsuch was forced to resign, but many careers were ruined in the process. It was not a pleasant time to be Regional Administrator.

As I look back on the changes that have occurred at EPA since those days, it is gratifying to see the growth of the agency, the ex-

pansion of our programs, the improvements to our environment for which we can claim responsibility, and the increased public awareness, concern, and support for environmental issues.

Our progress has been even more impressive when viewed from my days at the newly established agency back in 1970. Few could have predicted in those early years the enormous expansion in our responsibilities (that would take place over the next years—and will probably culminate in the soon-to-be-established cabinet level for a Department of the Environment), as the environmental movement has become one of the most important factors in national and international affairs.

Looking to the future, our programs are certain to become increasingly complex as environmental problems and their solutions become more difficult and expensive. In order to handle these problems efficiently, we must be more effective in enlisting the cooperation of outside groups including citizens, states, municipalities, businesses, authorities, consultants, contractors, professional organizations, and other federal agencies. We have not always given sufficient attention to working cooperatively. We should improve our communication with all groups so that they can clearly understand our requirements and what is expected of them. We should listen seriously to their concerns and, to the extent possible, take them into account in carrying out our programs.

It is particularly important to improve our relationships with the business community and the states. Too often we appear to be anti-business and anti-growth. A more cooperative approach with the business community and local

governments can result in more effective environmental programs. Wherever possible, the states should be allowed to run their own programs with minimal interference from EPA. Our role should be to assist and overview the states and to take over specific programs only when the states are incapable or unwilling to carry out the laws.

Over the years I have seen us moving more and more toward the use of regulation and enforcement as our primary weapons in the fight for a clean environment. There are dangers in this approach. It has often led to an adversarial relationship in our dealings with

Michael R. Deland, 1983 – 1989



Twenty Years of Momentum
Memories of 1970 evoke Earth Day messages resounding across the na-

tion and images of Americans demonstrating for clean air, for clean water, for unspoiled land—for the environment. The events of 1970 promised a prominent place for the environment on the national agenda. In one year, we witnessed the signing of the National Environmental Policy Act, the creation of the Council on Environmental Quality and the Environmental Protection Agency, and the passage of the Clean Air Act: all fundamental building blocks for strengthening environmental quality in the United States.

With the creation of EPA came the call for a corps of professionals committed to environmental protection. I was lucky to be among some of the earliest employees in the Boston office. For a young attorney two years out of law school, EPA was indeed an exciting and challenging place to be. I well remember writing the legal “boilerplate” for the first NPDES permits while Ed Conley, David Fierra, and their engineers were drawing on New England ingenuity and common sense to derive the discharge limits. From the outset, Region I was in the vanguard as those permits became the national norm.

EPA employees, now as then, are the soul of the agency. Success has always come from the strength, quality, and commitment of the region’s dedicated workforce. Success in the future will depend on continued recruitment and devel-

opment of environmental professionals.

During my term as Regional Administrator, we set many regional and national precedents thanks to the depth of the New England team. We enforced firmly but fairly, set in motion the long overdue cleanup of Boston Harbor and made a significant contribution to the protection of America’s wetlands by stopping the unnecessary destruction of Sweedens Swamp in Attleboro, Massachusetts.

As we move forward, there is growing recognition that a clean environment and a growing economy can go hand in hand. We are in the vanguard of what President Bush has called “an entirely new way of thinking to achieve both while compromising neither, by applying the power of the marketplace in the service of the environment.” This maturation in our thinking is evidenced by the continuing shift in emphasis from the “command and control” approach that regulates pollutants at the end of the pipe to a newer focus on preventing pollution in the first place.

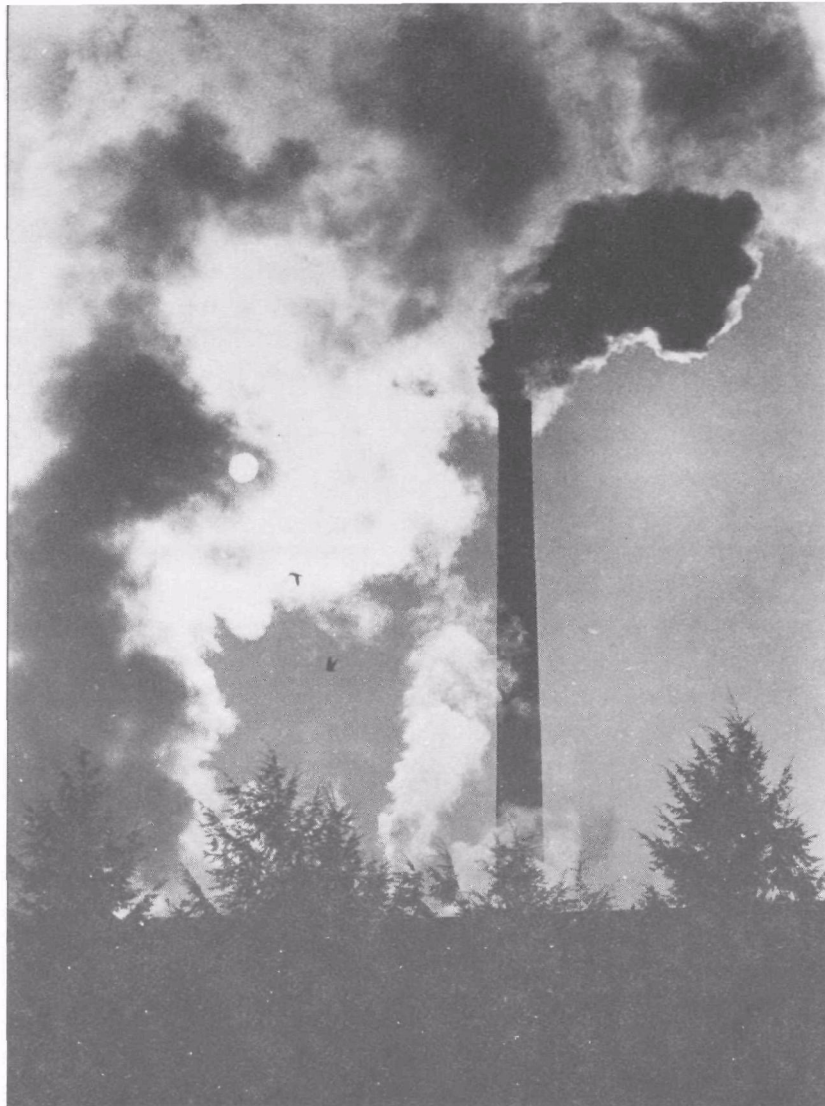
Although some promises of 1970 are yet to be fulfilled, we have indeed come a long way: we have dramatically reduced or stabilized many pollutants while our economy has grown by nearly 75 percent. But I am reminded again of the wisdom of President Eliot of Harvard: “A good past is positively dangerous, if it makes us content with the present and so unprepared for the future.” Here’s to another twenty years of progress and to the Council on Environmental Quality working constructively with the new Department of the Environment! ♻️

Mike Deland is chairman of the President’s Council on Environmental Quality in Washington, D.C.

A Look Back

outside groups that can be counter-productive. The excessive use of enforcement actions, without first trying to reach agreement by negotiation, can lead to serious delays in clean-up activities and can adversely affect the spirit of cooperation we will need in the future. We seem to measure our progress by the number of enforcement actions taken and fines collected, rather than the extent of environmental cleanup achieved. More effort should be devoted to explaining clearly our requirements and providing technical assistance to businesses and local governments. Enforcement actions should be a last, rather than a first, resort. We should strive to become a “kinder and gentler” EPA. ♻️

Les Sutton is special assistant to the Regional Administrator of EPA Region I in Boston, Massachusetts.



Air Management Division

A Pollution Prevention Program for the 1990s and Beyond



Lou Gitto
Director

My pollution prevention vision for EPA's third decade has three parts, each with opportunities for achieving strong environmental rewards and public support, as well as for continued U.S./international economic competitiveness.

The first is that EPA will exert international leadership and successfully remove from the international marketplace many chemicals that significantly contribute to fouling the environment (either in their manufacture, use, or disposal). Promising signs include the international agreement to phase out chloroflourocarbons (CFCs)

and the work EPA is currently doing with other countries to review existing chemicals suspected of being particularly harmful to the point that their use may be curtailed in the global marketplace.

The second is that EPA will push successfully for conservative use of energy and the sharing of efficient technologies internationally. Promising signs for this goal are the acid rain cap and marketing provisions in the Clean Air Act Amendments which will spur the energy industry into designing for greater efficiency and a wider diversity in production.

And third is for EPA to be suc-

cessful in pressing for transportation system changes in this country, especially in densely populated areas, that will effectively and in a non- (or less) polluting manner move people and materials. Promising signs are that Clean Air Act Amendments urge states to consider fuel and transportation changes for ozone and carbon monoxide (CO) planning. Some states already have increased fuel fees for transportation-related infrastructure improvements. A clearly articulated plan can coalesce these and other concepts to forge a new transportation and environmental partnership. ♻

Highlights from 1989-1990

Asbestos in Schools

All public and non-profit private primary and secondary schools must have their buildings inspected for asbestos hazards and develop asbestos management plans to assure the protection of students and school workers. This is the essence of the Asbestos Hazard Emergency Response Act (AHERA). Inspections, management plan development, and asbestos abatement work must be performed by workers/planners/contractors accredited through EPA-approved training.

Compliance rate is now close to 100 percent, resulting from the issuance and follow-up of almost 500 Notices of Non-Compliance, and administrative enforcement complaints against recalcitrant schools for failure to develop plans. Complaints were also filed against asbestos contractors for not meeting AHERA requirements. In addition, EPA issued a total of nearly \$800,000 in asbestos grants under the Toxic Substances Control Act (TSCA) to all six of the New England states to enhance their programs.

Radon Initiatives

Indoor radon is projected to cause 20,000 lung cancer cases nationally per year. To combat this public health threat, Region I has worked closely in the past four years with the New England states to promote public awareness of the need to test our homes and to remediate them as necessary. The region designated February, 1990, as "Radon Home Testing Month" and organized a variety of outreach activities in-

cluding a series of joint state/EPA press conferences in five of our states, a contract with the Lung Association to publicize radon information materials, a radon booth at the New England Home Show, mass mailings to print media outlets, and sending radio and TV stations public service announcements to air. There was a noticeable increase in both media attention and public inquiries.

In addition, the Region awarded over \$700,000 in first-ever radon grants to the six New England states and two Indian tribes under the new Indoor Radon Abatement Act. These grants are awarded to aid state development of outreach, technical assistance and research/development activities related to the radon problem.

Pesticides

The Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) gives states primacy for the regulation of the use of pesticides. In FY90 more than \$1.4 million in grant monies went to fund the development of new programs for the protection of groundwater, endangered species, and workers, and to enhance existing programs throughout New England. This marks a doubling of funds available and reflects the growing awareness that pesticide problems can be more effectively regulated at the state, rather than the national level.

Region I enforcement actions against pesticide producers/distributors lead to two major cases, which carried proposed fines of \$100,000 for illegal safety claims and misbranded/adulterated products.

Toxic Release Inventory (TRI)

Under Section 313 of the Emergency Planning and Community Right to Know Act (EPCRA), industry is required each year to report their emissions of toxic chemicals. Now in the third year of this program, Region I again conducted an aggressive outreach and technical assistance campaign to industry on these reporting requirements, which included conducting eleven workshops with over 1,000 attendees. In addition, the region stepped up its enforcement program against non-reporters in a major effort to increase the industry compliance rate, which is estimated to be about seventy percent nationally. With the development of a new inspection targeting scheme, inspections are yielding a ninety-five percent violation rate for inspected facilities, and our rate of issuance of enforcement cases is rising: thirty complaints with proposed fines of more than \$1.5 million have been issued since inspections began in FY89.

Since the value of the TRI data rests in its use, Region I began several initiatives aimed at promoting the use of the data by EPA programs, the states, industry, environmental groups and the public. The region also began analyses of the TRI data for New England, secured funding from EPA headquarters to host a workshop to assist industry in reducing CFC emissions as a result of our analyses of TRI data (CFCs are a class of chemicals which act to destroy our protective ozone layer—Massachusetts ranked third in the

nation in freon-113 emissions, an important component of CFCs), and secured funding for a health professionals' conference on risk assessment using the TRI data to be sponsored by the region later this year. The region is also funding a TRI risk assessment project by the New Hampshire Department of Health and is working with Connecticut and EPA Headquarters on a risk screening initiative in Connecticut using the TRI data.

PCBs

Region I negotiated a settlement with the Great Northern Paper Company of Millinocket, Maine, for a clean-up of several major PCB spills. The cleanup is expected to cost \$10 million. With limited administrative authority under TSCA to require cleanup, this settlement of an administrative complaint with an initial proposed penalty of only \$28,500 shows the commitment of both Region I and Great Northern to cooperate in finding equitable solutions to significant environmental problems.

In another major PCB case, Region I issued an administrative complaint to United Technologies Corporation of Hartford, Connecticut, for \$1.167 million. This is the largest PCB complaint filed under the Toxic Substance Control Act ever issued by the region, and was the first to use "per-day penalties." The large proposed penalty reflects UTC's poor compliance record, with four prior PCB complaints issued by the region since 1985, and the EPA's commitment to assure compliance by such large corporations.

This past year, the region issued a total of nineteen administrative complaints for PCB violations with fines totalling more than \$2.6 million.

Enforcement Can Carry Pollution Prevention Benefits

The region has implemented a policy of seeking to reduce pollution through the use of environmentally beneficial expenditure credits to offset proposed fines from administrative enforcement complaints issued under TSCA, FIFRA and EPCRA (Section 313). Companies may reduce proposed penalties by taking such actions as changes in equipment or manufacturing processes resulting in actual emission reductions, public education efforts, or company-wide audits for compliance with all environmental regulations. Credits can only be given for activities that are not required to come into compliance with existing laws and regulations.

Notable successes in the past year include expenditures of:

\$95,000 by Seekonk Lace in Barrington, Rhode Island, to eliminate the use of a toxic solvent (acetone) through a change in mechanical processes as part of an EPCRA Section 313 settlement;

\$108,000 by Simplex Wire and Cable in Newington, New Hampshire, and \$67,000 by Papertech Corp. in Contooscook, New Hampshire for the removal of PCB transformers and equipment as part of the settlement of TSCA PCB complaints and;

\$70,000 proposed expenditure by Safer, Inc., of Wellesley, Massachusetts to produce and distribute a public education pamphlet on the safe use of pesticides in the home as part of the settlement of a FIFRA complaint.

Connecticut Rule Effectiveness Study Miscellaneous Metal Parts and Products Coating Regulation

EPA studied Connecticut's miscellaneous metal parts and products (MMP&P) coating regulation for its effectiveness in reducing harmful volatile organic compound (VOC) emissions. The law requires that sources submit coating usage data to EPA.

Following a mailing of the Connecticut rules to 235 businesses and industries most likely effected by them, thirty-seven facility inspections were performed. Of those, twenty-two sources were found to be operating in violation of the MMP&P regulation. Notices of Violation (NOVs) were issued to most of the violating sources. Of the twenty-two sources found in violation, eight have been classified as "Significant Violators."

The study determined the Connecticut MMP&P regulation to be 80.7 percent effective in reducing VOC emissions. However, it is estimated that VOC emissions can be reduced by another 1000 tons per year if the Connecticut Department of Environmental Protection were to implement the corrective actions noted in the EPA study. The state is in the process of implementing these corrective actions.

United States vs. Cappelletti

In February, 1990, Thomas Cappelletti and his company, Bridgeport Wrecking Company, Inc. (BWC) of Bridgeport, Connecticut, were found guilty of criminal violations of the National

Emission Standards for Hazardous Air Pollutants (NESHAP) asbestos regulations (Asbestos NESHAP). BWC was fined \$30,000, and Mr. Cappozziello was fined \$10,000 and sentenced to one year in prison, with a mandatory three months to be served, for Asbestos NESHAP violations which occurred during a demolition project at the Knudsen Dairy Farm in North Haven, Connecticut.

The court found BWC guilty of failure to remove friable asbestos-containing materials from a building prior to commencing demolition operations and failure to wet friable asbestos materials during stripping and removal to ensure that the materials remain wet until disposed of in a approved landfill. The court found Thomas Cappozziello guilty of failure to notify EPA about the Knudsen Dairy Farm demolition project. The sentence is currently under appeal.

Reid Vapor Pressure and the Impact on State Implementation Plans (SIP)

In a precedent-setting move towards pollution prevention, gasoline volatility control regulations in Connecticut, Massachusetts, and Rhode Island were written into those states' revisions of State Implementation Plans (SIP). High quality and swift action on SIP revisions achieved significant environmental results in the form of substantial reductions in summertime emissions of volatile organic compounds; spared the agency defensive legal action; and promoted harmonious working relationships with the Northeast states.

Of greatest significance was that Reid Vapor Pressure (RVP) regula-

tions were federally enforceable in time for the onset of the 1989 ozone season. RVP requires a reformulation of gasoline that effectively burns cleaner and with lower amounts of VOCs being emitted. It is these and other emissions that produce ground level ozone and summertime smog conditions and the reason for the need for chang-

ing the volatility of gasoline. Concerns for cold weather starts for automobiles in our New England winters were addressed, and although cooler weather in 1989 certainly has been an important contributor to a less severe ozone season than in 1988, there is little doubt that the RVP team's work made a difference. ✽



Reducing Risks from the Use of Toxic Chemicals

Our society has become heavily dependent on the use of toxic chemicals, which affect all of us in our daily lives in many ways, some of which are not entirely understood, or even known. EPA and the states have developed important programs to regulate end-of-the-line emissions of pollutants to our environment, to dispose of and treat newly created toxic waste, and to clean up toxic waste sites. However, there is a growing awareness that the problem of exposure to toxic chemicals can not be thought of only in terms of the generation of air, water or waste discharges. For example, many products commonly used in construction and in the home today are potential sources of toxic chemical exposure and have resulted in emerging fields of study in indoor air pollution and worker protection.

There is, also, a new realization that exposure to toxic chemicals must also be managed by taking measures to reduce potential risks at the front-of-the-line in the process, i.e. in the manufacture and use of toxic chemicals. This is one of the central concepts in EPA's

new program emphasis on pollution prevention.

Two statutes perhaps not as well known to the general public as the Clean Air and Water Acts, can be instrumental in helping achieve our goal of reducing risks from toxic chemicals. The Toxic Substances Control Act (TSCA) was passed in 1976 and charges EPA with regulating the introduction of new chemicals into our channels of manufacturing and trade, and with identifying chemicals in use prior to TSCA that require additional testing, risk assessment, and regulatory control. For both new and existing chemicals the goal of TSCA is to reduce unreasonable risk after consideration of both the benefits and costs of toxic chemical use. In addition, the Emergency Planning and Community Right to Know Act (EPCRA) of 1986 requires industry to submit information on the quantity of use and emissions of many chemicals that are currently unregulated by other statutes.

TSCA and EPCRA, in combination, present a set of powerful tools for finding out what toxic chemicals are out there, what risks they



might present to both the environment and public health, and how those risks can be reduced. Both non-regulatory (e.g. voluntary industry reduction through changes in manufacturing process) and regulatory (e.g. banning the manufacture or otherwise controlling the use of a toxic chemical) approaches to risk management can be pursued under the broad authorities of TSCA.

Currently, EPA's Office of Toxic Substances, in addition to continuing the new chemicals review and registration program, is examining ways to streamline the screening of existing chemicals, prioritizing the chemicals in order to achieve maximum risk reduction with limited resources. The regional offices enforce the TSCA use/ban regulations currently in place for PCBs, asbestos, and chromium, enforce the requirements on industry to register new chemicals and to keep TSCA-required records on the use of new and existing chemicals; enforce the reporting requirements under EPCRA; and work with other EPA programs, industry, environmental groups, state and local officials on the ac-

cess, analysis, interpretation, and use of EPCRA data. The EPCRA data on releases of toxic chemicals is unique in that it is all publicly available to anyone through the National Library of Medicine.

As more and more evidence accumulates on the dangers of toxic chemicals in all forms, EPA must work creatively to use its limited resources to prioritize the chemicals requiring further testing and risk assessment. The TSCA Chemical Inventory now contains over 65,000 chemical substances, only 6,000 of which have been reviewed under the new chemicals program. In addition, we must find the best approaches for managing unreasonable risks through an optimal combination of regulatory and non-regulatory approaches. While the Office of Toxic Substances is primarily responsible for designing this program, the regional offices will play an increasing role in identifying additional hazards to be evaluated, reviewing alternative risk reduction measures, implementing chosen measures through aggressive enforcement, and promoting voluntary industry reductions through tech-

nical outreach and assistance efforts.

A key function in the years ahead for the regional offices will be in helping to forge the new infrastructure that will be necessary among federal and state agencies, industry, labor, environmental and other public interest groups. Unlike many of the more mature end-of-the-line pollution control programs, there is no well defined infrastructure to support programs for controlling the use of toxic chemicals. Given the size of the task ahead of us, decentralization of certain facets of the programs to the states will be a major emphasis. Finally, all of us, including the public at large, can play an important role through pressure on regulatory agencies and industry to reduce the toxic chemicals threat that has crept into almost all facets of our daily life. We can also have a direct impact through intelligent use of recycling, by careful use of products that contain toxic chemicals, by switching to less toxic products whenever possible, and by proper disposal of toxic products such as paints, cleaning products, and home/garden pesticides. 24

Water Management Division

Challenges to Water Quality Programs



David Fierra
Director

I believe the greatest challenge to water quality programs in the 1990s will be to place more emphasis on a proactive resource protection approach. At the same time we must continue to address existing water quality problems, particularly from combined sewer overflows and stormwater, and maintain the gains in pollution control we have already made.

However, since most of the emerging threats to our water resources are from land use activities over which the federal government has very little control, our traditional command and control approach will not work. Instead we must assist state, regional, and local governments to exercise their authorities to protect the water resources by properly guiding and managing development.

Over recent years we have come to realize that preventing pollution is a far wiser approach to environmental management than attempting to restore environmental degradation.

To promote this approach we have developed a hierarchy of actions we will implement or encourage and assist others to implement. The highest level is the goal of preserving existing high value resources through, for instance, placing restrictions on development in and around critical wetlands and water supply sources.

The second level is to assure that future development is compatible with the protection of critical water resources. This approach is exemplified by the state wellhead protection programs as well as by regulations that limit loadings of nutrients into lakes and estuaries to levels that will not cause adverse impacts. Since the states and local governments have the primary authorities to implement these actions, our efforts will be mainly to provide assistance and to assure that suc-

cessful approaches are communicated to others in the region.

Our final level in this hierarchy is to reduce as much pollution at the source as we possibly can. Activities included here will be to encourage industries to reduce their wastestreams through both regulatory and non-regulatory approaches, to foster the conservation of water by communities and citizens, and to work with state and local agencies to require the implementation of best management practices on all diffuse sources of pollution such as agriculture and residential and commercial development.

With appropriate emphasis on this pollution prevention/resources protection approach, I believe we can develop a balanced program that maintains the gains we've made while greatly minimizing environmental degradation in the future. ❧



Boston Harbor

The cleanup of Boston Harbor continued to make progress during the past year. The Massachusetts Water Resource Authority (MWRA) complied with the court schedule for the initiation of the construction of a secondary wastewater treatment plant (WWTP) at Deer Island to handle all the flow from the 42 communities that surround Boston. The MWRA has completed construction of the piers and staging areas to move the equipment and workers to and from Boston and Deer Island. It is also developing plans to address the problems of combined sewer overflows. Each month the MWRA and EPA must report to the court on the progress of the Harbor cleanup and any potential problems encountered.

EPA has completed the Environmental Impact Statement (EIS) on the siting options for the disposal of the sludge from the WWTP, but a final siting decision has not yet been made. The court schedule requires that the discharge of sludge to the ocean cease by the end of 1991. The new primary plant is scheduled to be on line by 1995 and the secondary plant, by 1999.

Environmental Enforcement

Region I maintained a strong and aggressive water enforcement program, placing increased emphasis on criminal enforcement, particularly in the pretreatment area. The region successfully pursued four criminal actions, including two actions against metal platers in Lowell, Massachusetts, for illegally discharging toxics into the municip-

pal sewer system, which in turn discharges to the Merrimack River, a major source of drinking water. The companies Astro Circuits Corporation and Wells Metal Finishing, Inc. of Lowell, were convicted at separate trials. These cases were the first in the region to result in jail sentences being issued for environmental violations. With assistance from the Connecticut Department of Environmental Protection the region also filed an action against Dexter Paper Corporation for National Pollutant Discharge Elimination System (NPDES) effluent violations. This civil suit seeks a multi-million-dollar penalty, one of the largest civil penalties ever proposed in the region for environmental violations.

The region referred four civil actions to the Department of Justice for unpermitted filling of wetlands and settled another civil case against Manchester, Connecticut for \$300,000 as well as substantial restoration. Additionally, the region referred two criminal cases to the Department of Justice for submission of fraudulent data from public water systems.

Toxic Chemical Control

The Region I NPDES Permit Program reached a peak in controlling toxic chemicals during FY 1990. Each of the approximately forty municipal permits issued by the region this year contained limits on whole effluent toxicity as well as monitoring requirements to ensure that the limits are not exceeded. (These permits aim to monitor and control biological as well as chemi-

cal contamination.) Additionally the Water Division has completed 55 individual control strategies for identified toxic dischargers in accordance with section 304(l) of the Water Pollution Control Act of 1987. Another 20 industrial permits will also contain chemical specific or whole effluent toxicity limits and monitoring requirements.

These requirements in NPDES permits will be tracked for compliance by the toxidata system developed by the NPDES program. All major dischargers were made aware in the spring of 1990 that Region I intends to enforce toxicity limits in permits and will demand strict adherence to the scientific protocols developed by the agency.

Wellhead Protection Programs

The Safe Drinking Water Act Amendments of 1986 created a new program to protect groundwater that is used for drinking water. Unlike many other programs the Wellhead Protection Program is preventative, designed to protect water supplies from possible contamination. The program provides the states with flexibility in identifying sensitive areas around wells and developing management approaches for minimizing the threat from existing and future land uses. Connecticut and Massachusetts had the first two wellhead protection programs in the country, with Rhode Island close behind. The remaining three New England states had programs approved in September 1990, making Region I the first region to approve all of its states in wellhead protection programs.

The National Estuary Program

This year saw the designation of two additional New England estuaries—Massachusetts Bay and Casco Bay, Maine—to the National Estuary Program. This program is mandated by the Water Quality Act of 1987 to identify, protect and improve nationally significant estuaries. During a five-year period of study, a local oversight committee,

ment Programs for all six New England states. Mandated under the Clean Water Act Amendments of 1987, the management programs call for four-year programs to plan for major nonpoint source threats such as land development, construction, stormwater runoff, and agricultural activities. The region worked intensively with the states



or “management conference,” develops a Comprehensive Conservation and Management Plan to promote long-term and comprehensive planning and management for the coastal resource in question. The first such extensive plan in the National Estuary Program was completed for Buzzards Bay in June 1990. Recommendations are also being developed for Long Island Sound and Narragansett Bay.

Nonpoint Source Management and Protection Programs

Region I approved Nonpoint Source Assessments and Manage-

ment Programs for all six New England states. Mandated under the Clean Water Act Amendments of 1987, the management programs call for four-year programs to plan for major nonpoint source threats such as land development, construction, stormwater runoff, and agricultural activities. The region worked intensively with the states

to develop these programs and follow up with implementation projects, assisted by Clean Water Act grants. These programs are helping the states develop long-range plans to protect existing high-quality estuaries, lakes, aquifers, and wetlands such as Casco Bay and Sebago Lake in Maine and Lake Champlain in Vermont; stormwater and sediment control regulations are helping to protect Rhode Island's Scituate Reservoir and Narragansett Bay, and aquifers and priority watersheds are being protected through enforceable statewide agricultural sediment control and stormwater Best Management Practices.

Wetlands Protection Programs: Big River

The region has taken an aggressive stance this year with regard to wetlands protection, most notably in the heavily publicized EPA denial of the permit for the Big River reservoir. The 3,400-acre water supply reservoir was proposed for construction in West Greenwich and Coventry, Rhode Island as a joint venture by the state of Rhode Island and the U.S. Army Corps of Engineers.

The project would have caused an unprecedented loss of nearly 600 acres of valuable wetlands and destroyed habitat for many species of wildlife. Ninety percent of the public comments expressed opposition to the reservoir, citing concerns about the environmental impacts, the loss of recreation, and the high cost of the project.

Section 404 (c) of the Clean Water Act empowers EPA to protect wetlands and water bodies from construction projects which would cause “unacceptable adverse effects” to, among others, wildlife and recreation. This dam would have transformed a diverse ecosystem harboring a wide variety of wildlife into a shallow lake that would benefit only a few species, primarily warm water fish. The loss of 600 acres of wetlands would have been greater than any project permitted in New England since the inception of the Clean Water Act in 1972. ❖



Drinking Water Protection Program

When the Safe Drinking Water Act was passed in 1974, it initiated the first comprehensive national program to safeguard public drinking water. It brought under federal standards almost 60,000 community water supply systems serving 200 million people daily. The result for many has been a striking improvement in drinking water quality.

In addition, the state programs for drinking water have become more effective. Federal grants have enabled all six New England states to improve oversight, testing and analytical capabilities. Programs to train and certify system operators have expanded. And many small systems, once ignored, are now under supervision.

Thanks to the research conducted under the Act, we now have a much better understanding of the nature of organic contaminants in drinking water and their effects on human health. We have recognized the threat of groundwater contamination, and we have developed some promising techniques for detecting and removing groundwater contaminants.

But many challenging problems remain, in particular the compliance of small systems with primary standards. Of almost 60,000 systems, nearly two-thirds serve 500 or fewer people. Many communities have serious technical and economic difficulties in complying with requirements.

In response to these challenges, Congress enacted the Safe Drinking Water Act Amendments of 1986. The new law established specific requirements for regulation of many more contaminants in drinking water while giving new en-

forcement authority to EPA. The law also banned the use of lead solder and pipe, which have been used extensively in New England. Finally, a new wellhead protection program to protect areas around groundwater supplies has become the cornerstone of EPA's efforts to protect this important resource in New England.

Control of Wastewater From Point Sources

The passage of the Clean Water Act (CWA) in 1972 established two major programs for the control of wastewater discharging from pipes to the nation's waterways. Title II of CWA provided for federal grants that covered up to 75 percent of the cost to municipalities of the construction of wastewater treatment plants. Title IV of the Act established a permit program, known as the National Pollutant Discharge Elimination System (NPDES) that prohibited the discharge of pollutants without a permit. Permits specify the amount and kind of pollutants that can be discharged.

Under Title II of the CWA, EPA, with the cooperation and assistance of the states, has awarded over 54 billion dollars for the construction of 27,000 municipal sewers and treatment plants. This program has resulted in marked improvement to the condition of the nation's rivers, lakes and estuaries. At its peak the Construction Grants Program under Title II of the Clean Water Act was the largest public works undertaking in the history of the United States.

In 1987 the Clean Water Act was amended to include a Title VI,

which created a new mechanism for funding Municipal Wastewater Treatment systems. The same amendment provided for the elimination of the old municipal grant process by the states. Now the states use the money as the base for a revolving loan fund; the program is named the State Revolving Fund (SRF). This plan allows the states to provide financial assistance to many more communities on a continuing basis. Financial assistance is given in the form of a low- or no-interest loan and in some cases can be equivalent to a 50 percent grant.

The early grant program and its successor, the revolving loan fund, have and will continue to provide the cities and towns across the country with the necessary money to construct complex wastewater treatment systems.

While Titles II and VI provided financial assistance to build municipal treatment plants, Title IV established the National Pollution Discharge Elimination System (NPDES). The NPDES program required that each discharger of wastewater obtain a permit from EPA in order to discharge legally. This requirement effected 20,000 facilities nationwide. Many of these facilities had only one discharge pipe, while others had as many as a hundred pipes discharging pollutants.

EPA began to attack this massive job in 1973. Over the years EPA has delegated its authority to states that have met all the stringent requirements necessary to take over the program. Today 37 states operate NPDES programs.

In the 1970s EPA and the states issued some 20,000 permits, contributing greatly to the cleanup of waterways. Failure to comply with the permits can result in civil or criminal penalties.

The first permits were issued with an eye toward cleaning up conventional pollutants from municipal sewers and paper mills. As time went by and permits had to be reissued, EPA gave special attention to industries such as metal finishing, electroplating, and organic chemical manufacturers. National categorical standards were developed for compliance by every facility regardless of location. The categorical standards were included in all the permits issued in the early 1980s and resulted in the removal of millions of tons of pollutants from our waterways.

In 1985 EPA began a third round of permit issuance. This time the agency turned its attention to water quality standards and the discharge of chemicals and substances that cause toxicity. Permits issued today insure that all pollutants—conventional, chemical specific, and toxic—are limited to maintain water quality standards and minimize the threat to human and aquatic life.

As we look to the future we will be attempting to insure that stormwater does not pick up pollutants as it flows to the waterways. We will also be examining how sediments in our lakes, rivers and streams become contaminated and how we can correct the problem. Long-standing hotbeds of pollution lying at the bottom of these waterways can cause serious pollution problems. We have sharply curtailed the discharge of pollutants in the past few years, but we must still deal with the pollutants that were discharged long before the establishment of EPA and the passage of the Clean Water Act.

Evolution From Point Source Controls to Resource Protection

Progress in municipal and industrial waste treatment of gross point sources unmasked threats to our waters from nonpoint source pollution as well—ranging from urban storm runoff, construction, and land development to agriculture. Poorly planned land development, for example (both large-scale and cumulative) threatened, degraded, or outright destroyed our heritage of wetlands, estuaries, lakes, and aquifers. In response, first the 1972

Clean Water Act established a program to help states and regional agencies begin to address nonpoint sources, lakes, and wetlands; later the 1987 Amendments (to the Clean Water Act) established an estuary and bays program and greatly expanded programs for nonpoint sources, toxics, urban stormwater, groundwater, and wetlands. The Safe Drinking Water Act Amendments (1986) established programs to protect well-head areas and sole source aquifers. EPA established offices for wetlands, estuarine, and groundwater protection. ♣



Coastal Protection

Over the years, more and more people have been moving to America's shorelines—over half now live in counties along the oceans and the Great Lakes. Along with this rapid population growth comes a panoply of environmental problems, including those associated with solid waste disposal, sewage, lawn chemicals, household wastes, run-off from roads and parking lots, destruction of sensitive ecosystems, and air pollution.

In some of our harbors the sediments are contaminated from discharges that have occurred over many years. These pollutants enter the marine food chain through bottom-dwelling organisms. Each day sewage treatment plants discharge 9.5 billion gallons of wastewater effluent into our nation's estuaries. Because of pollution, there are harvest restrictions in about 40 percent of U.S. shellfish beds.

But we are committed to protecting our New England coasts in the coming decade, and we are

making progress. Between 1972 and 1986 in New England alone, EPA awarded over \$3.5 billion in grants for sewage treatment plants, and state and local governments have dedicated many more millions of dollars to the job. In 1982, strong local support from Cape Cod led to EPA's first designation of a sole source aquifer. (We now have designated 12 sole source aquifers.) Cape Cod has been a model in the implementation of watershed planning, and New England has been an active participant in the National Estuary Program. State and local cooperation are leading to better land use planning, both to prevent the destruction of sensitive ecosystems and to avoid generating wastes in areas that simply do not have any more capacity to assimilate them.

EPA and the states are reducing the ocean and coastal discharge of industrial and municipal wastewaters. Ocean dumping of raw sewage and sewage sludge through outfall pipes will be virtually eliminated.

Deep sea disposal of municipal sludge is being phased out, and the ocean has been closed to industrial dumping, waste incineration, and radioactive waste disposal. Ocean dumping of medical wastes is prohibited as of 1991. EPA is currently developing rules to implement the Shore Protection Act of 1988, aimed at preventing pollution of coastal waters by vessels transporting municipal and commercial wastes. We are confident that the coming decade will see great strides in cleaning up and protecting our coastal resources.

Protecting Groundwater

Clearly, our greatest challenge will be managing the evolution of water programs from correction/restora-

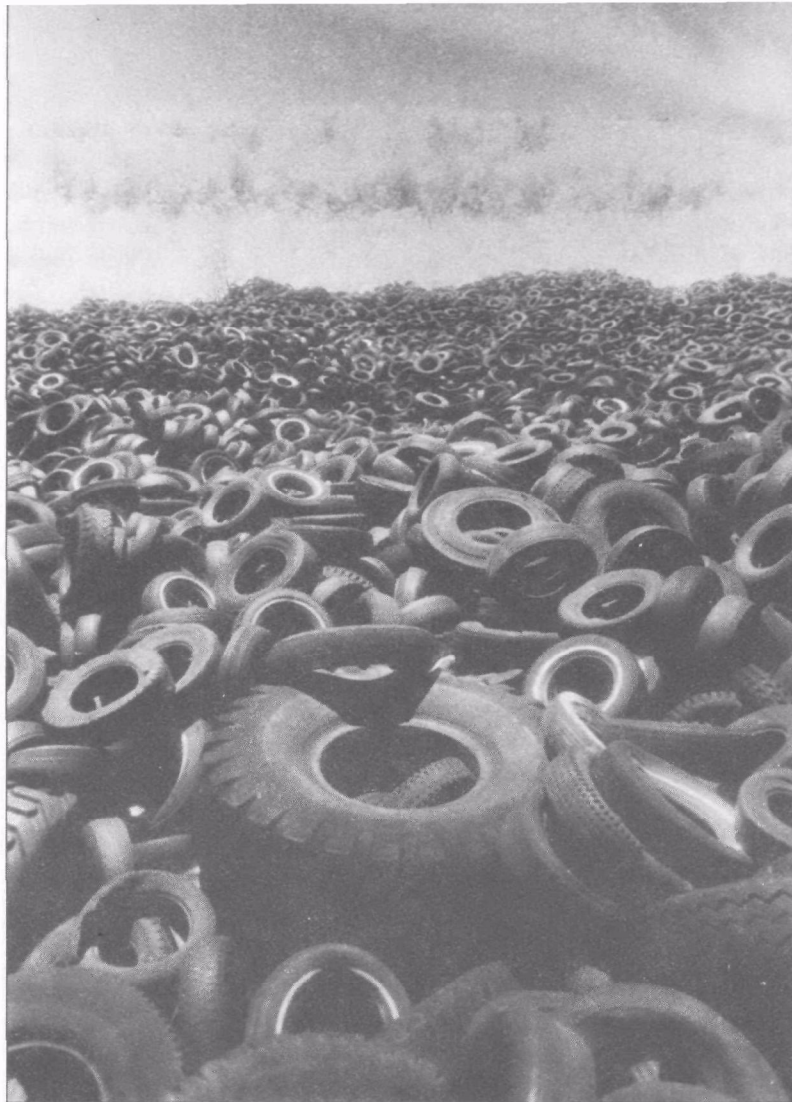
tion programs to a greater emphasis on water resource protection. At the same time we must continue to maintain the integrity of existing control programs during times of tight budgets. We must move toward a more proactive preventative approach to preserve the integrity of the environment—for its own sake and also because we cannot afford to continue our financial investment in restoration.

We have found through the past decade how difficult and costly it is to clean up groundwater contamination. Consequently our groundwater program stresses protection of the resource through the coordination of federal, state, and local programs. At the federal level we will be challenged with providing technical assistance to both state and local governments to

encourage protection before any contamination incident occurs. The challenge will be to do this effectively at a time when most state and local governments are feeling fiscally constrained.

Because groundwater protection is so intimately related to land use issues, local governments have an especially significant role to play here. With the help of the states we will need to provide a range of alternatives appropriate to various local governments to help protect their resources. These may include new local land use programs, enforcement of existing regulations, pollution prevention initiatives, and financing strategies. ♣





Waste Management Division

A Shifting Emphasis Toward Preventing Pollution



Merrill S. Hohman
Director

Since the creation of EPA twenty years ago, this nation has made significant advances in protecting our environment. Many of our rivers and streams have been restored to fishable/swimmable quality, the air in many of our cities no longer poses a threat to our health, and we have established aggressive programs to assure proper management of our industrial and municipal waste streams. We are also making rapid progress in cleaning up the results of improper disposal practices of the past. Perhaps the most exciting news of all is that increasing numbers of Americans continue to support our environmental protection programs.

At the same time, we have been learning that the problems of the past have been the easier ones to solve. Over the last two decades, as pollutant measurement techniques have advanced, we have discovered that even minute levels of many toxics can pose serious threats to health and the environment. And, we are realizing that our conventional approach of command and control is not adequate to address each and every such threat. EPA will place increasing emphasis on programs to help industry and individual citizens reduce or eliminate the use of toxic chemicals. Pollution prevention avoids the need for increasingly complex

regulations and controls by simply not creating the hazard in the first place.

The past twenty years of EPA have been exciting—the next twenty will be even more so as we try to change our society from a chemical-reliant one to a self-reliant one. Whether it be through mechanisms such as elimination of unnecessary packaging or less frequent use of our automobiles, or through management of growth and development, EPA and the American people will need to work closely together to preserve the gains of the past and to solve the problems of the future. ♻

Sylvester Superfund Site Groundwater Cleanup

Installation of a groundwater pump and treatment system at the Sylvester (Gilson Road) Superfund Site in Nashua, New Hampshire in 1987 marked one of the first times this technology was used at a Superfund site. Designed to extract and treat 300 gallons per minute of contaminated groundwater from a twenty-acre manmade containment area, the treatment plant has consistently achieved upwards of 95 percent removal of the 16 major chemical compounds. Approximately 75 percent of all contaminants within the containment area now meet established cleanup levels on over 95 percent of the site.

It is expected that cleanup levels will be met within the next three years at this site.

Medical Waste Tracking System

Spurred by our East Coast beaches being littered with needles, syringes, vials and other medical waste, and back alley dumpsters overflowing with medical waste improperly disposed of, Region I kicked off what may become the nation's model of a medical waste tracking system. States participating in the pilot are Connecticut, Rhode Island, New York, New Jersey, and Puerto Rico. The system parallels the successful cradle-to-grave tracking program developed to handle hazardous wastes. From reports received as part of the program, Region I has found that 48,000 tons of medical waste were produced by 16,400 doctors,



dentists, veterinarians, clinics, and hospitals. Hospitals account for ninety-two percent of all medical waste, most of which is incinerated. With this program in place, the potential for mismanagement of medical waste from commercial and institutional facilities is greatly reduced.

"One dirty LUST story has a clean ending"

Northwood Ridge, NH — Gasoline leaking from underground supply tanks at a convenience store on a ridgetop in this southeastern New Hampshire community contaminated sixteen local wells serving residences, an elementary school, and several businesses. First discovered in well water in August 1986, the dissolved gasoline had migrated from the tank area through fractured bedrock into the aquifer supplying the surrounding area.

Local residents formed their own water district, mobilizing state environmental and legislative assistance. By the summer of 1987, the New Hampshire Department of Environmental Services had identi-

fied and provided alternative water supplies to those affected. When money from the new EPA Leaking Underground Storage Tank Program became available in September of 1987, the community hired an engineering contractor to identify a replacement water supply source. Selected was a water source in an undeveloped high valley on the flank of the Northwood Ridge. It was purchased in the spring of 1989 from two sisters whose ancestors had settled the land in the eighteenth century.

Construction began in the summer of 1989, and the distribution system was substantially complete by December. A final cost recovery settlement came in spring of 1990 and services for the school and private residences were completed in August 1990.

The result of all these state and local initiatives is that within four years of the initial discovery of gasoline in their wells and vapors in their homes, Northwood Ridge area residents will be drinking and using clean water from an aquifer whose supply is protected from future contamination. ☛

Twenty Years of Achievement

Superfund

Since the founding of the U.S. Environmental Protection Agency in 1970, two of the most significant events addressing a major public health and environmental problem were the passage of the Resource Conservation and Recovery Act (RCRA) in 1976 and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA).

A series of headline-grabbing stories in the late 1970s gave Americans a crash course in the perils of hazardous waste management. First there was Love Canal, the community in Niagara, NY that had to be evacuated after the discovery that hazardous waste buried over a 25-year period had contaminated ground water.

Then the Valley of the Drums took center stage. This noxious deposit of leaking storage barrels in Kentucky quickly became one of the most notorious places in the United States.

The little community of Times Beach, MO became the next national hazardous waste story. Oil contaminated with highly toxic dioxin tainted the soil and the water in this eastern Missouri community.

In all these instances, lives were disrupted and property values were ruined. Suddenly Americans began to wonder who would be next....and who would be there to pick up the pieces.

The experiences of the 1970s led to the belief that a federal law was needed to protect U.S. citizens. CERCLA was the first major law designed to protect against the dangers posed by hazardous waste abandoned at sites throughout the nation.

As of Jan 1, 1990, EPA Region I has proposed or finalized listing of eighty-four Superfund sites including nine federal facilities.

Of the seventy-six non-federal facilities, the region began studies at sixty-four of them. Of the sixty-four sites where studies have begun EPA has:

- determined the remedy for forty-one of these sites,
- started design at thirty-two of these sites, and
- started construction at eighteen of these sites.

CERCLA Accomplishments

Through Fiscal Year 1989 EPA Region I has selected remedies at Superfund sites totalling more than \$425,000,000 for design, construction, and operation. Through our enforcement efforts in FY89, the responsible parties have agreed to reimburse EPA approximately \$30,000,000 for past agency costs and to perform approximately \$70,000,000 of this cleanup work.

Fundamental to the safe handling of hazardous waste are the regulations that establish a "cradle-to-grave" system for managing hazardous waste and for tracking the movement of hazardous waste from its point of generation to treatment, storage, or ultimate disposal. RCRA also imposes groundwater monitoring and financial assurance requirements on the owners and operators of hazardous waste treatment, storage, and disposal facilities, in order to ensure the early detection of contamination and the availability of monies to address it. With the passage of

HSWA in 1984, EPA was given the authority to address environmental contamination caused by historic waste disposal practices. The agency can now deal with past, present, and future contamination under the broad regulatory framework Congress has given it.

The impact of the RCRA program in Region I has been dramatic, as the following statistics show:

- Upwards of 5000 hazardous waste generators not previously subject to regulation were brought into the federal regulatory scheme.
- As a result of the increased controls RCRA placed on land disposal facilities (LDFs), many chose to close and to manage their wastes in a manner other than disposal on the land. In 1980 there were 150 LDFs in Region I; today there is one.
- As with the LDFs, many treatment/storage facilities (TSFs) chose to ship their wastes off-site rather than manage them on-site in units subject to RCRA. In 1980 we had approximately 500 TSFs in Region I; today we have 180.

EPA has implemented an aggressive compliance and enforcement program in order to ensure that facilities comply with these important waste handling requirements. Since the advent of RCRA, we have inspected upwards of 700 hazardous waste generators and treatment/storage/disposal facilities, issued 80 Civil Complaints assessing approximately \$3.3 million in penalties for violations of the act, and referred twenty cases to the Department of Jus-



Geri Manion, 1990 Secretary of the Year, dedicates her time to the Waste Management Division.

tice for civil or criminal prosecution.

Concurrent with this federal effort, the New England states implement their own hazardous waste control programs. All states in the region, with the exception of Connecticut, have been authorized by EPA to carry out these programs in lieu of EPA, with the federal government providing technical assistance and oversight, and taking independent enforcement action when circumstances so warrant.

Clearly, the impact of RCRA in Region I has been dramatic and has fundamentally changed the nature of our hazardous waste universe and the manner in which that waste is managed.

Work progresses at the Winthrop Landfill Site in Winthrop, Maine (inset). Open barrels pose a potential hazard at this industry facility.



Leaking Underground Storage Tanks (LUST)

The 1984 Amendments to RCRA granted EPA more responsibility, for the first time, to regulate raw materials like petroleum and hazardous substances stored in underground storage tanks.

Subtitle I, the Leaking Underground Storage Tank (LUST) provision of RCRA, brought 1.5 million tanks at 750,000 facilities under federal regulation nationally. In New England that translates to 100,000 tanks at 40,000 sites, and any one leak in the wrong place could wipe out a neighborhood's water supply or fill a basement with dangerous fumes.

Working directly with our New England state regulatory agencies, EPA Region I has begun to imple-

ment a pollution prevention strategy of finding existing leaking tanks and encouraging replacement of substandard storage systems before they fail.

Also, up to \$12 million has been made available to states from the Leaking Underground Storage Tank Trust Fund. The program funds staff for managing clean-ups and for direct corrective action at sites where no owner can be found. In addition several states are providing bottled water temporarily to homeowners who have petroleum contaminated wells and are planning permanent alternate water supplies in Rhode Island, New Hampshire and Maine. ❧



Future Challenge

Implementing "Worst Sites First"

A Geographic Information System (GIS) enables EPA scientists to map potential sources of pollution together with sensitive environmental resources, such as nearby rivers and streams. PMD (refer to p. 35) provides a resource-based management approach to planning by integrating air, water, and land programs.

One of the major challenges of the 1990s for Region I's Waste Management Division will be to insure that available resources are applied to the most important environmental problems. The scope and size of the waste-related activities in relation to the available resources make it extremely important that priorities be developed in a manner which insures that attention is given to the most serious environmental and health-related problems in the region. By developing a "worst sites first" approach, we can meet the challenge of resource allocation.

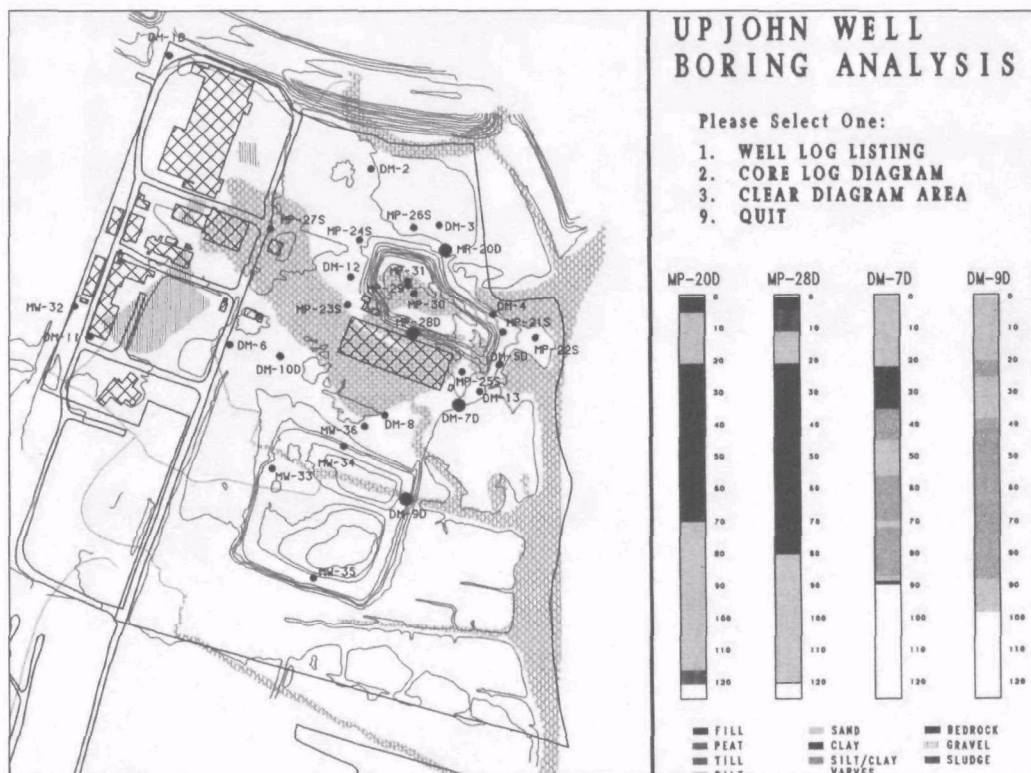
It is extremely important that state and federal waste regulatory activities be carefully coordinated. The approximate numbers of waste-related activities requiring state and federal attention in New England are as follows:

Category of Waste Activity	Approximate Number
RCRA Large Quantity Generators	3600
RCRA Facilities Subject to Corrective Action	910
RCRA Transporters	600
RCRA Small Quantity Generators	16000
CERCLA Inventory of Potential Sites	2020
Subtitle D Solid Waste Disposal Sites	2700

EPA Region I in conjunction with the State of Connecticut, has developed a pilot project for screening and ranking all waste-related industrial sources. A computer based Geographic Information System (GIS) locates sources (RCRA facilities, generators, Superfund sites, etc.) and important receptors (wells, population, wetlands, etc.). An analytical model compares the environmental vulnerability of the site with the facility-specific information (e.g. types of chemicals, potential for release, etc.).

The results of the ranking process in Connecticut will be used as a tool for coordinating state and EPA regulatory activities in conducting RCRA inspections and issuing permits, for coordinating Superfund and RCRA activities in cleaning up sites, and for developing a common data base of environmental information collected during the study.

Region I has been an active participant in the national efforts to promote the development of strategic plans and risk assessment techniques to identify and respond to the most pressing environmental problems within New England. We hope to expand the Connecticut pilot project to other states in the region. This would provide an important management tool for insuring that most significant environmental problems receive the attention of state and federal environmental officials. ✱



Office of Regional Counsel

Enforcement Takes Multi-Media Approach



Harley Laing
Director

EPA has begun to focus its enforcement program on an approach designed to increase our deterrent effect and to address the most significant environmental problems. We have evolved procedures during the past year which help us develop "multi-media" cases. That is, we will be trying to examine, at one time, all of the regulatory requirements to which a facility is subject, not just one. This approach, while presenting management challenges, will increase our focus on the total environmental impact of a facility, should help avoid moving pollution around, and will allow us to get higher penalties and more comprehensive relief.

In response to EPA's developing focus on pollution prevention, we are developing a set of policies and procedures that will lead to enforcement case results with the potential to reduce unregulated as well as regulated discharges. An example would be a case settlement in which a company, in addition to paying a fine, agrees to conduct a facility-wide environment audit which includes an examination of ways to reduce unregulated toxic emissions reported in the company's Toxic Release Inventory report.

We are also working to continue the expansion of our criminal enforcement capabilities. ✻



Highlights from 1989-1990

Clean Water Act Violations Prosecuted

*Enforcement case against the
Dexter Company*

The EPA and the state of Connecticut have jointly brought a major civil court enforcement action against the Dexter Company in the U.S. District Court in Connecticut. The company is charged with numerous violations of the Clean Water Act at its paper plant in Windsor Locks, Connecticut. This is one of the largest enforcement actions ever brought by EPA in terms of the size of the company, the number and severity of the violations, and the multi-million-dollar penalty being sought. The case also is a good example of effective federal-state cooperation; federal and state officials jointly prosecuted this case.

Municipal Filtration Plant to Ensure Clean Drinking Water

*Enforcement case against the city of
North Adams, Massachusetts*

EPA's enforcement case against the city of North Adams, Massachusetts passed an important milestone during this past year. The federal court rejected the city's attempt to dismiss the federal case in favor of a state court action. The federal judge noted that the city had failed for several years to agree to any binding settlement in the state court case. The EPA brought the federal case to make sure the city moves forward and stays on track in building a filtration plant to ensure clean drinking water and otherwise complies with the Safe Drinking Water Act. The EPA is also seeking a civil penalty from

the city in view of its past record of delay.

Toxic Metals and Dangerous Chemicals Discharged into Sewer

Enforcement action against Borjohn Optical Technology, Inc.

Borjohn Optical Technology, Inc., of Burlington, Massachusetts, and its president, John Borowski, were convicted of illegally discharging toxic metals and dangerous chemicals into the sewer system and of endangering company employees as a result. This was the first time in the country an individual or a corporation has been convicted of knowing endangerment under the Clean Water Act. Borowski faces a maximum of 30 years in prison and a \$500,000 fine, and his company faces a maximum two-million-dollar fine when it is sentenced this fall.

Superfund Site Cleanup Costs Recovered

Judgment at Picillo Superfund site based on prior state lawsuit

On May 31, 1990, the federal court in Rhode Island issued judgment finding American Cyanimid Company and Rohm & Haas Company liable for the cost of cleaning up the Picillo Superfund Site in Coventry, Rhode Island. The EPA claimed approximately \$3.5 million in past costs plus future cleanup costs.

The court based its ruling on a 1989 decision, in which the same court found American Cyanimid and Rohm & Haas liable to the State of Rhode Island for costs incurred by the state at the Picillo site. The court's ruling was issued as a summary judgment before trial, and the government will therefore be spared the considerable time and expense of a trial.

The decision is important because it establishes a precedent for EPA to recover site cleanup costs based on prior enforcement actions by states. State governments are becoming increasingly involved in hazardous waste site cleanups and are exercising their enforcement authority more often. The Picillo decision allows EPA to take advantage of the states' assistance in the important and complex effort of cleaning up hazardous waste sites, without duplicating enforcement efforts.

Removal Cost Recovery Settlement

During the course of the year, the region settled numerous cost recovery cases to recoup Superfund money spent by the agency for cleanup action. One such settlement related to an emergency removal action at the Pine Street Canal in Burlington, VT, the site of a former coal gasification plant. EPA originally sued three present and past owners and operators, who, in turn, brought additional owners and operators into the lawsuit. The settlement calls for the defendants to pay EPA a total of \$945,000, which represents 98.4 percent of the total cost incurred by EPA. Other significant settlements for removal actions include the following:

Putman Fire and Chemical Spill Site, CT—\$950,000

Cooks Landfill, RI—\$415,000

Bourdeauhui, CT—\$429,000

Region I's Focused Effort on CERCLA (Superfund) Cleanup Enforcement

In the past year, ORC has taken aggressive action to use the Comprehensive Environmental Response Compensation and Liability Act's (CERCLA's) special notice enforcement procedures for Superfund cleanups, which allows for negotiation before court proceedings. In 1990, the region used CERCLA's negotiation procedures at ten Superfund sites as a means of achieving private performance of remedial design and remedial action. Moreover, in four cases in which those negotiations have not yielded a consensual agreement with responsible parties, the region has issued unilateral CERCLA orders to compel private cleanups. All told, the enforcement effort covers ten cleanups worth approximately \$180 million. This represents the region's most focused and comprehensive effort to use CERCLA's congressionally mandated cleanup enforcement procedures. ♣

Twenty Years of Achievement

Enforcement of Regulatory Statutes

Region I has long been committed to a vigorous enforcement program. A key measure of enforcement efforts is the number of new cases recommended for litigation, or "referred," in a year. That number for civil judicial cases has grown dramatically in recent years. From fiscal year FY'85 to FY'87,

the number of civil referrals ranged from sixteen to twenty-two; however, from 1988 to 1990, the numbers increased to range from thirty-two to thirty-seven. Reflecting a new priority for the agency's enforcement program, criminal enforcement has received significantly greater attention in the re-

gion since 1988. In each of the last three years, the region has referred seven to eight new criminal cases to the Department of Justice; prior to 1988, the number usually never exceeded two per year. In addition, in every year since 1985, the region has also initiated well over one hundred administrative enforcement actions. The trend has been to maintain a strong level of administrative enforcement, while placing increased emphasis on judicial enforcement, both civil and criminal.

Superfund Enforcement

Since the enactment of Superfund in late 1980, Region I has taken aggressive and precedent-setting legal actions to ensure that responsible parties at New England Superfund sites participate with EPA in ensuring the expeditious cleanup of these sites. Region I has established an effective relationship with the potential responsible parties, resulting in numerous multi-party, multi-million-dollar settlements. As Superfund enters its second decade the region will continue to use the strong enforcement tools in the statute to obtain settlements and conserve fund money. ❧

Future Challenge

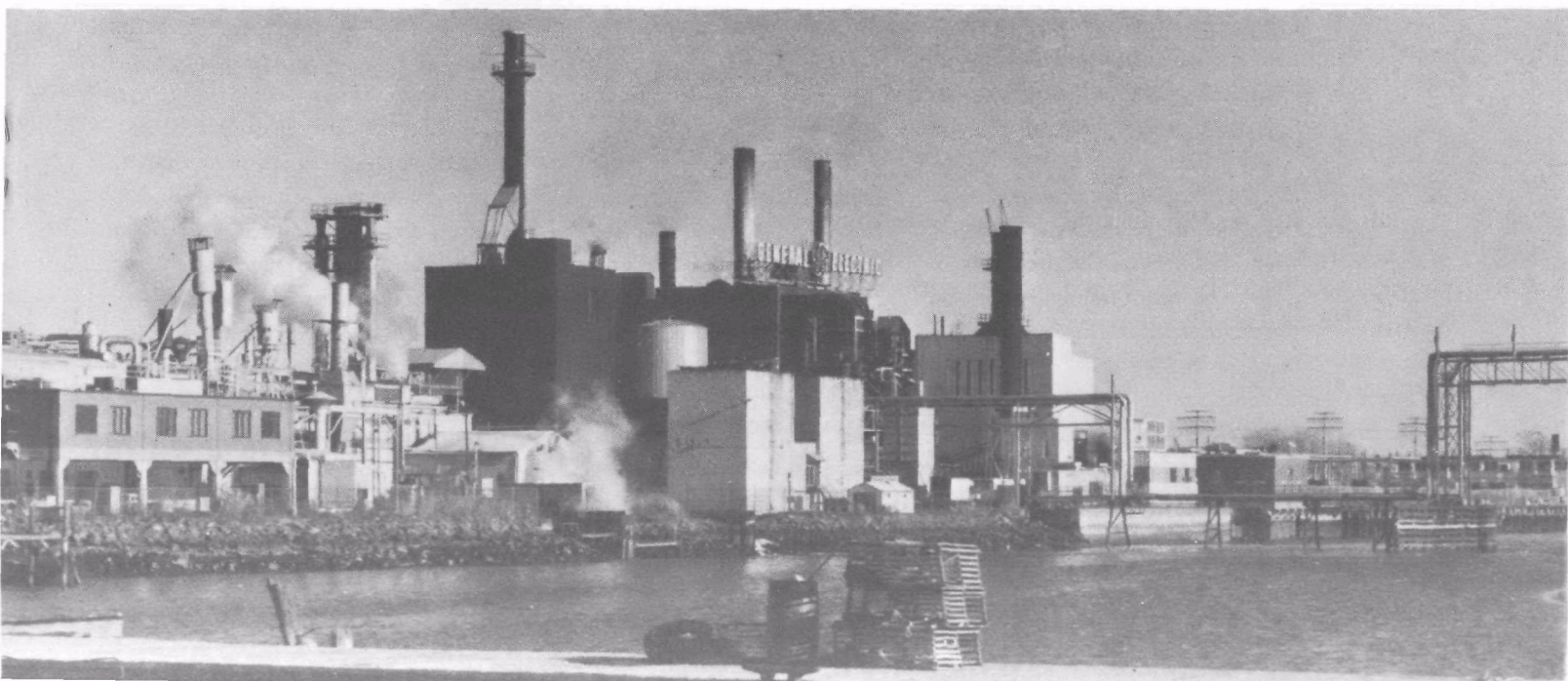
Using Strategic Planning to Develop Priorities

To date, EPA's enforcement program has been keyed to the separately developed priorities of its individual programs. There has been little comprehensive strategic planning in the development of each year's priorities. The result has been that, although we have had significant individual successes and a highly visible overall effort, we have missed opportunities to maximize the environmental impact as well as the deterrent effect of our enforcement effort. We have not as yet developed measures of the success of our enforcement effort other than numbers of actions taken, amount of fines collected, numbers of convictions or amount of jail time served. While these are necessary management tools, they do not say anything about actual environmental benefit.

We have recently developed a set of ranked environmental priorities as part of the region's Comparative Risk Project, and in certain areas, most notably in the wa-

ter program, we are doing a degree of geographic enforcement targeting. Examples are the Merrimack River in New Hampshire and Massachusetts and Casco Bay in Maine. However, these efforts are limited, and they do not involve all appropriate program areas.

The challenge we face is developing an enforcement program that is planned in a coordinated fashion and involves all program areas. We need to try to find places where geographic targeting, industry targeting and other coordinated approaches, including cooperative approaches with the states, can maximize the benefits of our enforcement efforts. The vehicle we will use will be a four-year strategic plan for the years 1992-1995. We will attempt to involve the public and the states in the development of this plan. Our goal is to have an initial plan completed in December of 1990 and also to develop an ongoing process for review and update of the plan. ❧





Julie Belaga presents awards to the 1990 Poem and Poster Contest winners. Fifteen hundred people were in attendance at Boston's Park Plaza Hotel.

Office of Public Affairs

Emphasis on the Individual



*Brooke
Chamberlain-Cook
Director*

Pogo, the cartoon character, once said, "We have met the enemy and they is us." Twenty years ago, the environmental movement tagged industry as the 'bad guy' and looked no further for culprits. Today, we are realizing that we, as individuals, are also part of the problem. But, we *can* be a large part of the solution.

Our overconsumptive lifestyle and throwaway mentality have produced the biggest environmental protection challenge yet. We drive everywhere, water and mow our lawns to death, eat vegetables nesting in seemingly unnecessary packaging, and buy disposable everything.

While global warming and the disappearing rain forest are enormous environmental problems, they are almost imponderable and often leave us feeling overwhelmed and powerless.

But, individuals *do* have the power to make a difference through how we choose to live our lives. Choosing to use a glass mug

for morning coffee over a disposable one helps. Choosing to carpool helps. Choosing to recycle or buy recycled paper helps.

Turning off lights; turning down the heat; avoiding overpackaged products; walking or taking public transportation; digging weeds out of the lawn instead of spraying pesticides all over it — all of these choices help.

It is the goal of the Office of Public Affairs not only to keep the public informed on the "big stories" of the day but to increase the public's awareness of the choices that we make every day that influence the environment in various ways. Through public education and media outreach, we try to keep people informed of exactly how their actions and attitudes make a difference. ♻️

Highlights from 1989-1990

How to Destroy the Earth

This year the Office of Public Affairs launched a public service campaign, "How To Destroy the Earth," designed to empower the individual to make the best choice for the environment.

Using humor and reverse psychology to send the recycle, reduce, and reuse message, this television, radio, print, and direct marketing campaign suggested simple

changes we can all make in our everyday lives.

The public service advertising effort consisted of six 30-second television spots, six 60-second radio spots, print media ads, and an "affectionate size" 32-page "How To Destroy The Earth" brochure with a series of earth-wrecking tips. But, at the end of each ad and tip came the message "The Earth: if you want to save it, find out what you're doing to destroy it."

The advertising agency Cosmopolus, Crowley & Daly donated their services to create, direct and produce the campaign, and the agency is very grateful to them.

Earth Day 1990

The office coordinated the region's Earth Day celebration with:

- an Earth Day Kick-off, which inspired EPA employees to become involved in the local celebrations. Many employees volunteered to speak in schools and help with Earth Day events.

- an environmental speakers bureau, which received 150 requests for guest teachers in the schools and provided teacher training for EPA volunteers.

the Environmental Masters Awards Ceremony. EPA presented awards as part of the New England Enviro-Fest at the University of Massachusetts, Harbor Campus. Hundreds of people attended the ceremony, and twelve distinguished New England environmentalists received awards. EPA also exhibited at the Enviro-Fest.

- an Earth Day walk for federal employees from the JFK Federal Building to the Boston Earth Day celebration on the Esplanade.

- an open house at EPA's Laboratory in Lexington, Massachusetts. Nearly 200 people toured the region's lab, while EPA staff discussed and demonstrated emergency response, air and water quality monitoring, asbestos analyses, information management, and other lab functions.

- the distribution of thousands of Earth Day posters, stickers and magnets, and "You Can Make A Difference" brochures.

Environmental Education

The office sponsored the region's eighteenth Elementary Education Ecology Poem and Poster Program (EEEEPP) in May and June, which attracted more than 7,500 entries from throughout New England. Other environmental education programs that have taken place throughout the year include the Adopt-A-School program, the President's Environmental Youth Awards (PEYA) program, and a high school environmental essay contest. In addition, OPA participated in a number of environmental conferences and forums throughout the region.

Media

Recognizing the powerful role that the media play in shaping public opinion and the public's need to be informed about important environmental issues, the Office of Public Affairs wrote and released about 250 news releases throughout the year. Regional events, such as the Big River Reservoir veto, large monetary enforcement settlements with private corporations, significant actions at federal Superfund sites, and prison terms for polluters were reported through news releases to newspaper, magazine, radio and television reporters. OPA staff spoke regularly with reporters at all of the major daily newspapers in the area—the *Boston Globe*, the *Boston Herald*, the *Hartford Courant*, the *Providence Journal*, the *New York Times*, the *Wall Street Journal*, and many important national news publications—*Time*, *Newsweek*, and *Business Week*.

Among the more than fifty interviews arranged with the media for senior management staff were NBC's "Today," the *Christian Sci-*

ence Monitor's "One Norway Street" and many more local television and radio programs. For significant events, decisions, and enforcement actions around the region, the office organized twenty on-site news conferences.

For the more than five hundred daily and weekly newspapers in New England, the office wrote and published several op-ed pieces and guest columns on such topics as mercury-in-paint, pollution prevention, the Clean Air Act, and radon. This form of outreach serves as a means to cover important environmental issues more comprehensively for general readers.

As a companion to newspapers, television, and radio as sources of environmental news, the office publishes a quarterly newsletter of major activities in the region. Called *New England Environment*, the newsletter highlights enforcement actions, reviews new and pending legislation and policy, and summarizes significant data affecting the environment.

Freedom of Information

OPA's Freedom of Information Act (FOIA) Office responded to 1,856 requests, an increase of 27.5 percent over last year.

Superfund Community Relations

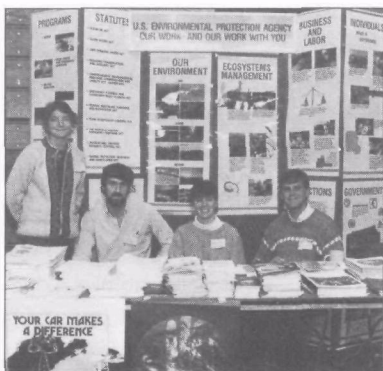
For the residents in communities where there is a federal Superfund site, anxiety and concern is often high. The Superfund Community Relations Program seeks to keep an open dialogue with community residents, to hear concerns, to discuss cleanup options, or to review risk assessments. EPA's increased outreach efforts solicit their input

on decisions that may potentially affect their health or the environment in their communities.

EPA holds public meetings and hearings, as well as informational meetings with elected officials, local community groups, planning boards and various interest groups in site communities so that citizens and officials may learn, raise issues, and ask questions about site developments. EPA distributes news releases, informational updates, and site-specific fact sheets to keep local citizens apprised of Superfund actions.

The addition of nine New England military facilities to EPA's Superfund list has provided a new challenge in information sharing for the agency. Federal military installations tend to be larger, technically complex, with the potential to affect a large number of individuals and communities. The residents surrounding these facilities have a keen interest in understanding and participating in the decisions leading to the cleanup of hazardous waste sites on them.

Seven Technical Assistance Grants (TAG) were awarded to citizen groups in communities where there is a Superfund site. These grants may be used for hiring independent experts to review and comment on Superfund technical documents and to act as consultants to the citizen groups. ♻️



EPA exhibit at Earth Day Envirofest.

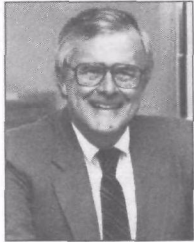


Major Press Announcements

- the Big River Reservoir decision, vetoing the State of Rhode Island's proposal to fill 650 acres of prime wetland to create a drinking water supply.
- the first-ever guilty verdicts in the nation imposed under the "knowing endangerment" provision of the Clean Water Act. A Burlington, Massachusetts company and its president were found guilty on all counts.
- designation of Casco and Massachusetts Bays as national estuaries, authorizing them for federal analysis and funding.
- the longest jail term ever imposed in Massachusetts for Clean Water Act violations. The president of a Lowell, Massachusetts company was sentenced to fifteen months in prison and ordered to pay \$60,000 to the City of Lowell.
- the largest penalty (\$254,000) for violation of hazardous waste export laws in New England was proposed against a Stratford, Connecticut aircraft engine manufacturer.
- Region I's comments on the draft environmental impact statement (DEIS) for Boston's Central Artery/Third Harbor Tunnel project.
- the agreement in principle reached with AVX Corporation of New York, NY, a major defendant in the New Bedford Harbor (MA) Superfund litigation. The \$66 million payment represents one of the largest settlements by a single defendant in the ten-year history of the Superfund program.
- the suit filed against United Technologies Corp. of Hartford, Connecticut for more than 100 violations of hazardous waste laws. In addition, the company was charged with violating a prior consent agreement. Penalties of up to \$25,000 per day per violation are authorized under the law.
- Connecticut and Rhode Island's achievement in February as the first two states in the country to gain approval for their wellhead protection programs as required under the Safe Drinking Water Act (SDWA). The regional office approved Massachusetts' plan in March and those of Vermont, New Hampshire, and Maine in September, making New England the first region in the country to have all wellhead protection plans approved under SDWA.
- Radon Testing Month was publicized in February, Safe Drinking Water Week was highlighted in the spring, and National Radon Action Week was targeted in October.
- the suit filed against Solvents Recovery System of New England, a Superfund site in Southington, Connecticut, seeks penalties of up to \$25,000 for numerous violations to environmental permits and hazardous waste laws. ♻️

Office of Government Relations and Environmental Review

The Credibility to Match Our Responsibility



Steve Ellis
Director

Earlier this year, Barry Commoner asked how it was that EPA, from its earliest days, has been so captured by an end-of-the-pipe, black-box, abatement-focused regulatory philosophy. In answering, I tried to remember the imperatives that drove state and federal "pollution control" programs in the sixties. I remembered that the outrage expressed by Earth Day had been building in many parts of our society for ten years. Evidence that this wave was starting to crest could be seen when, three months prior to Earth Day, NEPA (the nation's first pollution prevention statute) became law. Earth Day had power to bring about change because it snapped into focus an accumulated, multi-generational revulsion and heightened its political imperative.

The results of that imperative were the Congressional transformations of the nation's moribund pollution control laws and the creation of EPA. We at EPA were told to be the shock troops and small unofficial signs saying "Sue the b-----s" hung in many offices and proclaimed that the law was to be our weapon. In 1970, Administrator Ruckelshaus, on the day of his swearing-in and in his very first message to the employees of the brand new EPA, used the imagery of aggression, command and control:

"The President has established a high priority for a major effort to attack the many environmental pollution problems which face this country. To spearhead this effort, he has established the Environmental Protection Agency as the

first independent agency of this Administration."

An impatient public demanded action. A Democratic Congress smelled blood. A Republican President, seeing his country almost coming apart before his eyes, told EPA to produce results on the environmental front — and fast.



Fore River staging area in the Boston Harbor.

And so our priorities were filing lawsuits, issuing tough permits, and making many grants. Our watchwords were: the carrot and stick; to be firm but fair; to send a message and deter similar conduct elsewhere. But, as I remember it, even then there was little agreement on the overall strategy to use: for example, both the President and most of the states opposed the passage of the Clean Water Act of 1972, and even the House and the Senate disagreed as to what it meant.

Do you remember the controversy in 1972 over the Clean Water Act's call for zero discharge by 1985? The law gave a clear pollution prevention direction; its very first goal was "It is the national

goal that the discharge of pollutants into the navigable waters be eliminated by 1985". People who believe in pollution prevention remember that as a lodestar. People who didn't, or who were preoccupied, dismissed it as merely a goal, thus missing what it really was driving at. Thus, the debate over

pollution prevention isn't new — it's recurring and Congress has periodically expressed its displeasure with our singleminded and seemingly bullheaded regulatory fixation on abatement. But we saw abatement as our primary mission and with justification: it wasn't until the eighties that we got (most of) the lumps out of the water, and then realized that we had uncovered a new regulatory horror: the need to abate the discharge of toxic chemicals.

Always, however, there was a counterpoint within EPA to our regulatory activities: we always hoped that we could break free from today's demands and do more to prevent tomorrow's problems.

These regional efforts took many forms over the years, such as by doing impact statement reviews that urged less-polluting alternatives, by adopting regional water quality and land use policies that called for preservation of high-quality lakes and streams and warned against future pollution, by enforcing the laws calling for prevention of significant degradation and preservation of existing uses, and by supporting public participation and air and water planning to help citizens plan for a non-polluting future; and by other difficult efforts.

It is admirable that EPA is now vocal in pushing pollution prevention. The "abaters" still want to prevent pollution; they've tried, but the system fights them. There's no inconsistency in theory between abatement and prevention (both are important, though prevention should have its turn in the sun) but there certainly is a conflict in practice, in resources, and in politics. If pollution prevention is to become more than words on paper, it will require us, the Congress, and our constituencies to show more courage, wisdom and patience than we have in the past. Our organization, culture and controlling statutes do not encourage or reward multimedia or preventative solutions to environmental problems. Political imperatives and the constant need to justify resources demand measurable actions and fast results. It's similar to the dilemma of the American corporation trying to do long-term research but fearing that what it needs to fend off a raider or please its shareholders is short-term profits.

Thus, pollution prevention's technical problems are tough, but the institutional barriers are tougher.

Here are some environmental wishes for EPA on its twentieth birthday.

I wish for us to have the credibility to match our responsibilities; for risk information that relieves people's fears; for a way to have change that doesn't burden its environs; for an economy that doesn't thrive on waste.

I wish for a land use ethic that doesn't smear the land; and for the Vermonts, the coasts of Maine, the Nantuckets, and Whitton Ponds, for all the small places we love — I wish that they may yet escape the tragedy of the commons.

I wish for an end to disease

from urban lead, ozone-smog, and radon gas; and for the courage to change our dismaying new world of acid rain, global climate shifts, ozone holes, greenhouse gasses, and rising sea levels.

I wish for a government that doesn't pollute; for a society averse to the allure of pork barrel projects; for an end to decisions which shrug off the environment; and for a stop to incremental losses and perpetual rear guard actions.

More than ever, I wish for a nation that agrees on its environmental future, not one bitterly divided and partisan, but full of hope. ♻

Highlights from 1989-1990

The Government Relations Staff furthers EPA's mission by informing the Congress and other elected officials of EPA's priorities and actions and by responding to their concerns. The Government Relations staff is the principal link with these officials, who have the responsibility to satisfy themselves that EPA is carrying out the laws they enacted. Their informed judgment and continued support is important if the environment is to be protected.

The information we give to them must be prompt, correct, and absolutely nonpartisan. Issues intensify and contacts increase during election years. Therefore it is crucial for the office to have a network of contacts to reach out and inform key elected officials in a timely manner and to follow a planned notification process which insures equity. It is the hope of our office to support our divisions and let them get on with their difficult jobs of environmental protection.

A number of bills pending in Congress will have a major impact

on us and New England: the Clean Air Act reauthorization; pollution prevention legislation; Resource Conservation and Recovery Act (RCRA) reauthorization; perhaps the elevation of the Environmental Protection Agency to Cabinet level; and others. We will be working with our divisions, with elected officials and with state officials, as some of the new federal laws will require state action in order to become fully effective.

The Environmental Review Staff has been active in numerous important cases. We have sought, in NEPA's twentieth birthday year, to prevent significant or avoidable environmental damage and to protect the integrity of the National Environmental Policy Act process of full disclosure and public accountability on behalf of an environmental ethic.

This year our NEPA Review staff has raised, in the face of controversy, questions about projects affecting the environment throughout New England, such as the following:

- a proposal by the US Fish and Wildlife Service to commence a program of introducing chemicals into Lake Champlain to kill lampreys;
- the plan to expand the Loon Mountain Ski area to another mountain in the White Mountain National Forest;
- Boston's mammoth Central Artery/Third Harbor Tunnel project; and
- the absence of environmental impact statements on certain major highway construction.

We are particularly proud of the contributions NEPA has made over the last dozen years towards this year's preservation (through a wetlands veto) of 700 acres of wetlands in Rhode Island's Big River Valley and the recent deferral (by Executive action) of oil leasing on Georges Bank. Also, our earlier



work on the proposal to create a civilian air cargo "hub" at the Westover Air Base, which protected thousands of people in the Chicopee area from nightly wake-ups, became a precedent for recent national action.

If we could send one message that would summarize the year's activities, we would urge that project managers take seriously the National Environmental Policy Act from the first stages of a major project. Save time: plan for pollution prevention from the start. ✻

Future Challenge

Using the National Environmental Policy Act to Prevent Pollution

Twenty years ago, the National Environmental Policy Act of 1969 (NEPA) was, as Barry Commoner says, the nation's first pollution prevention statute. Directing the federal government to follow a new ethic of the natural order, NEPA requires that our government must use all practicable means to prevent as well as to eliminate pollution and must fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.

To enforce these brave and lonely words, the Congress and the courts devised a new way to make the power of the government more accountable to the people and their environment: NEPA says that before any federal agency decides to take any action (or to issue any grant or permit) that significantly affects the environment, that agency must prepare and show the people an environmental impact statement (an EIS) and must respond to their concerns.

NEPA's call for impact statements touches two beliefs that run deep in a free and feisty people: "*The truth shall make us free*" and "*Show me.*" A good EIS lays out information on impacts and alternatives, allays citizen fears, checks the federal agency's judgement, and identifies an alternative that prevents or eliminates harm. The EIS process advocates disclosure and protection and EIS comments often favor simpler alternatives,

which are often cheaper and less harmful. With the help of the courts, NEPA has improved many projects and has been present at the deservedly early retirement of a few.

Though NEPA has now ended its second decade, the EIS process still struggles to succeed. NEPA's experiment of stating environmental ideals in a statute, attempting to prevent pollution from occurring, and then policing the decision process by requiring that the truth be told and the ideals followed, is still bold. In fact, NEPA has become even more controversial as sponsors of poor projects have learned to resent NEPA's scrutiny. Ideally, the effectiveness of NEPA should depend more upon the clarity of the voices that speak for the environment than upon their volume, but these voices must be strong enough to be heard.

If NEPA in the 1990s is to do its job of making government more accountable to the people and through them more protective of the environment, NEPA must get renewed support from those of you who support its ideals and the EIS process. During the next decade, with your help, we want to see all federal agencies become committed to a strong NEPA based on truthful disclosure of impacts and alternatives, public participation, and an ethic that impels the selection of the alternative that prevents or eliminates damage to the environment. ✻

Environmental Services Division

Monitoring and Data Gathering More Important than Ever



Ed Conley
Director

When we consider that regulatory programs have been in place and operated for some years at a cost estimated to exceed 70 billion dollars annually, it becomes apparent that monitoring and data management are more important than ever. While data gathering might not be glamorous, it is essential to government, the regulated community, and the public if we are to make objective evaluations of our national environmental policies.

Traditionally, monitoring activities have tended to be media specific and local in their scope and impact, for example, water

long-term monitoring programs that will assess the status of ecological resources and our overall progress toward mitigating or preventing ecological effects.

The agency is facing this challenge now and is developing a program that will monitor ecological status and trends. Ideally it will help identify emerging problems before they reach crisis proportions and allow time for reasoned and balanced solutions.

The Environmental Services Division, located at our lab site in Lexington, Massachusetts, is a service branch to all EPA programs. ESD offers technical and

Highlights from 1989-1990

Air Activities

The Ambient Air and Emission Monitoring Section approved air monitoring network modifications in the six New England states for ozone, particulates, and carbon monoxide; conducted in-depth audits of the New Hampshire, Rhode Island, and Vermont air monitoring programs; processed more than 1.5 million data points of air quality information; and analyzed ozone data for state implementation plans. The section observed approximately thirty emission tests at a variety of sources and reviewed twenty excess emission reports. Forty-six Superfund documents and two RCRA documents were reviewed and evaluated for air monitoring; ten air toxics monitoring studies were conducted at Superfund sites and for emergency response; and the section participated in and conducted sampling for a Title III Safety Inspection.

Biological Activities

The Biology Section has made a major investment in equipment, methodologies, culture, and testing of marine and freshwater test organisms. *Champia parvula*, a marine alga, is now being used for toxicity testing as well as the freshwater alga *Selenastrum capricornutum*. Toxicity tests were conducted on contaminated sediments and efforts in this area are seen to increase in the future. Sediment oxygen demand studies were conducted in three Connecticut har-



Patti Tyler and
Linda Mortensen,
biologists, prepare
food for freshwater
invertebrates.

quality surveys in a river basin or site specific monitoring for enforcement purposes. These efforts must continue, but we need more if we are to improve our ability to document the condition of our environment. We must develop

analytical services as well as emergency response capability at sites at which there may be an imminent hazard. This section details the specific program areas by environmental medium where the lab has provided needed services. ✽

bors for wasteload allocation decision making. In addition to toxicity testing, some 250 bulk insulation and dust samples were analyzed using polarized light microscopy with dispersion staining, and expert courtroom testimony was given in several NESHAPS enforcement cases.

Chemical Activities

More than 2,000 samples from 239 different sites were analyzed this past year. This includes metals, nutrients, PCBs, cyanides, pesticides, and semi-volatile and volatile organics in support of various programs. Last year, the laboratory computerized its gas chromatography and expanded its air toxics to include XAD/PWF and canister techniques. Training and certification for state laboratories are also provided.

Chemical Emergency Preparedness Program – Title III Activities

The Title III Program Office is responsible for overseeing Emergency Planning and Accident Prevention Programs conducting technical assistance, outreach, chemical safety audits, and enforcement. A sampling of the forty-eight technical assistance projects that were conducted this year includes contingency plan reviews, community hazards analyses, and operations reviews of Local Emergency Planning Committees (LEPCs). As part of its ongoing outreach efforts the Title III office offered training courses to industry and government on computer management of emergency operations and various other planning and response topics. A total of ten chemical emergency simulations were conducted to test public response capabilities. Forty-two Accidental Release investigations were issued and as a



Nathan Raines, chemist, weighs soil in preparation for analysis.

follow-up, four Comprehensive Chemical Safety Audits were conducted at industrial facilities having a high potential for chemical accidents. Title III inspectors conducted forty compliance investigations this year. Approximately \$588,000 in penalties have been issued by the Title III Program Office since October 1988.

Oil and Hazardous Response

Our emergency response program responded to more than sixty oil and chemical spills and worked closely with the U.S. Coast Guard on major marine spills which occurred in Buzzards Bay this year. In an ongoing effort to avert major chemical accidents, the Title III program conducted facility audits of four potential problem chemical facilities and issued four civil complaints to chemical companies for various reporting violations. More importantly, assistance to state and local governments in the form of simulations and contingency plan enhancement including chemical accident safety training occurred in over fifty cities and towns in the region.

In the Superfund program, we issued administrative orders to potentially responsible parties to

conduct removal activities at nine hazardous waste sites and funded an additional twelve removal actions which resulted in mitigating immediate public health threats such as contaminated drinking water and direct contact with mercury, and exposure to PCBs, pesticides, and corrosives. These totals represent an unprecedented proportion of enforcement actions requiring removal actions by potentially responsible parties with which we have had 100 percent compliance.

Water Activities

The Environmental Studies Section completed forty-eight NPDES direct discharge inspections plus nineteen inspections for the pretreatment program. Contributing to the Merrimack River initiative, the section provided field and logistical support for testing chronic toxicity from twenty-two discharges. This section conducted a two-week study near Portland Harbor as part of the Casco Bay initiative. Analyses included dye studies, physical/chemical field measurements and acute toxicity testing at four POTW's (privately owned treatment works).

Extensive field efforts were made at the Nyanza Superfund site in Ashland, Massachusetts, and Carroll Products in Wood River

Junction, Rhode Island. Investigative efforts led to criminal convictions in the case against Wells Metal Finishing, Lowell, Massachusetts.

Quality Assurance Activities

The Quality Assurance (QA) Office provides technical review and comments on QA documents and conducts laboratory audits developed by EPA programs, states, and EPA contractors. This process enhances the environmental data collection activities and ensures that the data collected is of known quality.

The QA office conducted two field audits, reviewed seventeen QA work plans for the Superfund program, and reviewed three RCRA

enforcement-related facility QA Plans. For the water program, the office reviewed plans for six bay study projects and one Boston Harbor project. They also conducted two state drinking water laboratory inspections for certification under the Safe Drinking Water Act (SDWA.)

The Quality Assurance Office performed eight laboratory audits in support of the Superfund Contract Laboratory Program (CLP) and two field laboratory audits in support of Superfund enforcement activities during FY90. Additionally, in support of the Region I Superfund Data Validation Program, the division completed twelve oversight audits of contractor performance. ❀

activities. We have been an active participant in the National Air Toxics Monitoring Program working closely with EPA Headquarters and the Office of Research and Development.

Toxics air monitoring will play an increasingly valuable role in ESD's future. Activities, such as our current participation with the Office of Research and Development in the field testing of prototype samplers at Superfund sites in Region I and our involvement with several national task force workgroups, will enable ESD to continue in a leadership role in the air toxics field. EPA's decision to perform more on-site waste treatment at Superfund sites will require expanded air monitoring, particularly on emission sources, such as incinerators and air strippers. The public is demanding more information on the impact of air toxics from industrial and waste processing sources because of its increased awareness of toxics emissions. The challenge is to develop equipment and techniques that will meet these demands and expectations. ❀

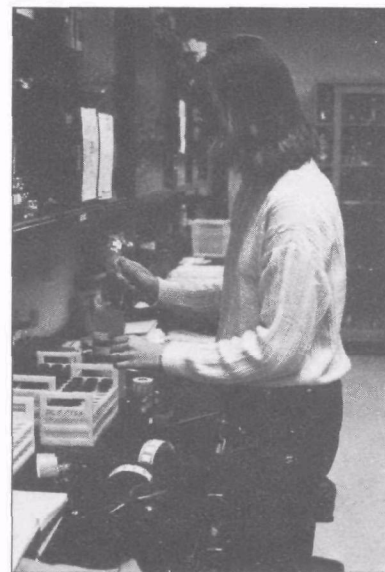
Future Challenge

A significant problem facing the Environmental Services Division (ESD) is the identification and quantification of a multitude of volatile organic compounds which may be in the ambient air surrounding hazardous waste sites or industrial sources. Because these compounds are present in trace amounts (in the parts per billion range), the sampling and analysis of these compounds requires meticulous attention to detail and sophisticated equipment. Sampling is further complicated by the diversity of responses from these chemicals and potential interferences ranging from the humidity in the air to artifact formation on the sampling media. Accurate information is critical for the risk assessment process and to ensure the protection of the public health.

Currently ESD is developing and implementing monitoring and analysis capabilities for real time

measurements using field chromatographs and for time weighted averages using carbon and/or Tenax absorption and passivated canisters with gas chromatography/mass spectrometry. These methods generally measure volatile organic compounds which are nonpolar and nonreactive and have boiling points in the range of -15° to 120°C. These methods are able to measure organic compounds in the parts per billion range.

Sampling has been conducted primarily at hazardous waste sites, in homes surrounding these sites, or during chemical spills. A few studies have concentrated on industrial and urban impacts. Results have played a significant role in determining the amount and type of remedy, where and when to require evacuations, and in the protection of workers on site. ESD has also taken an active role in providing technical assistance to the states and in conducting training



Deborah Thiem, chemist, fills vials for gas chromatography analysis.

Planning and Management Division

A New Way of Thinking



Patricia L. Meaney
Director

Pollution prevention is more than a new term: it is a new way of thinking. Anticipating and avoiding the generation of pollutants is our ticket to advancing beyond the diminishing returns of pollution treatment and control. We need to build an ethic of *preventing* pollution into every situation where there is the potential to create pollution: not only in industry and manufacturing, but also in public and private business, government, communities, and individuals.

Regulations and economic incentives will not break down all the institutional and cultural barriers to preventing pollution in each of

these sectors. What we need is a profound *cultural* change—in our attitudes, systems, and the way we do things. EPA must reach beyond its traditional regulatory role and promote this cultural change through outreach, education, and technology transfer.

While reaching out, EPA must also look inward to ensure that we incorporate the pollution prevention philosophy in all of our decision-making processes and day-to-day business. Everyone—from EPA staff to planners to heads of corporations—has a part to play in making the environmental gains promised by pollution prevention a reality. ♻

ment of location necessary to combine our existing environmental information into images or pictures. These new tools can deliver vital new capabilities to make full use of our environmental information.

Voicemail

Initially implemented as a carefully evaluated pilot program, Voicemail or AUDIX will soon be installed on most employees' phones. AUDIX is an electronic message system that provides an effective way to exchange information via telephone without requiring simultaneous participation by caller and receiver. Studies show that more than 50 percent of all business calls fail to reach the intended person on the first try and 70 percent are made only to relay information.

Unlike an answering machine AUDIX allows a great deal of control by both the people sending and receiving voice messages. The sender can record, review, and edit a message and then send it to a single person or a group of people. Time problems will be helped, because AUDIX allows people in different time zones to communicate more efficiently. After a message has been sent, the sender can use AUDIX to check whether it has been received and accessed. The person receiving the message gets useful information about the time and originator of the call and can check on messages from a remote location. The receiver can then reply to the message or forward it to someone else.

Strategic Planning

EPA has embarked on an ambitious strategic planning process. Region I participated as one of three pilot

Highlights from 1989-1990

Geographic Information Systems... helping EPA Show the Environmental "Big Picture"

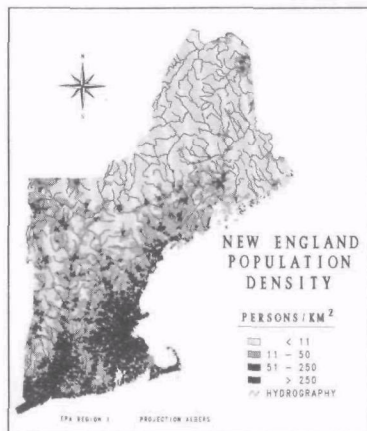
The compliance, monitoring, permit, and enforcement data collected by Region I program offices represents a major investment in environmental information. The analysis necessary to draw meaningful conclusions and to support programmatic decisions and strategies is often difficult when the nature of the information involves multi-year trends or requires integration of air, water, and land programs. Tools and technology now exist to make better use of the data collected by

EPA as well as by state and local environmental organizations.

New visualization technologies, working in conjunction with tradi-

tional automated databases, now allow us to manipulate data in the form of maps and other graphic images and can provide powerful new tools for analyzing and communicating complex relationships, trends, and problems. Central to this process are Geographic Information Systems, which allow the storage and manipulation of spatial data along with traditionally collected attribute information. A Geographic Information System, for example, enables a hydrogeologist not only to review specific well data but to see well locations together with an image of the ground surface, nearby rivers and streams, and potential contamination sites.

Two other technologies, remote sensing and Global Positional Systems, are important sources of data for environmental visualization. Each of these provides the key ele-



regions in the FY92 planning cycle. We developed a plan that set priorities for FY92 using the results of our Comparative Risk Project as a starting point. (The Comparative Risk Project was an analysis of 24 different environmental problems in New England undertaken to determine which posed the greatest health and ecological risks and societal costs.) In 1991 Region I will be preparing a four-year strategic plan for FY 1993-1996. EPA is hopeful that this new process will help assure that risk information and opportunities for risk reduction are taken into account more comprehensively. Through strategic planning EPA hopes to influence the budget process, so that the budget we receive from Congress reflects our top priorities.

Mail Operations

The month of April brought two major changes to our regional mail operations. We converted to mail metering and contracted with National Industries for the Severely Handicapped to provide mail services. Operations ran smoothly with exceptional service during the transition, and they continue to do so.

Recycling

Region I's recycling program has expanded significantly in the past year. The volume of paper recycled has steadily increased to the current level of about 1400 pounds per week. This spring, as part of EPA's Earth Day activities, the program reached out to all employees with the distribution of recycling baskets to every work station. The region's cleanup associated with the move out of the JFK Building produced an additional eleven tons. All paper purchased for use in the office—stationery, xeroxing paper, and paper for printed brochures—is now recycled paper.

A related effort to recycle empty soda containers has also been successful. Empty containers are collected at locations throughout the office and returned to a local supermarket. The deposit refunds are then donated to the Pine Street Inn, a shelter for the homeless in Boston.

EPA Offices Move

Region I and GSA have been planning for a move from the JFK Building to One Congress Street since early last year. Five hundred and fifty employees moved in August to a new facility, which contains 136 individual offices, new furniture, a variety of conference space and records centers, and modern information management systems. Two floors high, divided by an atrium that is 14 feet wide and several hundred feet long, the new building provides a comfortable workplace filled with natural light.

IFMS Implementation

The Integrated Financial Management System (IFMS), a completely new agency-wide accounting system, was implemented in March 1989. A lot of very hard work and many frustrating hours were spent by the Comptroller's Office during this implementation. The Finance Section experienced a 50 percent staff

turnover yet was able to restaff and attain IFMS expertise without reducing financial services to our clients.

IFMS has received software upgrades since the system was implemented. One major help was the improvement of data entry and query response time. As IFMS continues to improve, Region I has taken the opportunity to participate, and at times, to lead in pilot efforts to implement other IFMS modules such as Accounts Receivable and Reporting.

Regional and National Training Programs

The number of training offerings and requirements is growing to keep up with the expanding EPA staff (which jumped dramatically from 270 in FY'82 to 700 in FY'90), and we have established a committee to review all regional and national training initiatives. This committee is chaired by a senior executive and comprised of representatives from each division, the secretarial advisory council, and the training office. This is the first time that the region has attempted to provide a comprehensive management overview to focus on training priorities, resources, and regional policies. ♣



This past decade has witnessed some of the biggest advances in information technology. Personal computers have brought the power to acquire and manage information to every desktop. We are now in an age when data, independent of its source and media, can be freely accessed, across geographical boundaries and system platforms. Policy makers now have at their disposal a wide

variety of tools to help acquire and analyze information.

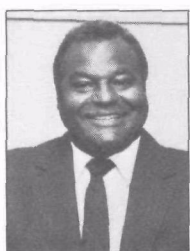
A number of thorny issues will need to be resolved to turn all of this technology and data into usable information: we must find ways to help users navigate more easily through the mass of available data. We will also be working toward defining common data standards and data quality so that we can readily share information between organizations. ♣

The 1990 summer interns with program directors, James Younger, Allin Bond, and Jim Owens.



Office of Civil Rights and Urban Affairs

Strengthening an Aggressive Regional Affirmative Action Program



James Younger
Director

The recent appointment of a full-time director to the Office of Civil Rights and Urban Affairs has further strengthened an aggressive regional affirmative action program.

The Office of Civil Rights and Urban Affairs has the prime responsibility for administering and monitoring policies, rules, laws, and regulations that assure non-discrimination in the employment of women, Asians, Blacks, Hispanics, and those with handicaps. These monitoring activities also include overseeing all EPA contracting and EPA financially assisted programs.

This responsibility encompasses both the internal and external activities of the agency. The internal focus of the office will be strengthened by the collaborative effort of the special emphasis programs and managers, such as the Black Employment Program, Hispanic Employment Program, and the Federal Women's Program. These programs are charged with the responsibilities of implementing various civil rights, equal employment opportunity, and affirmative action mandates.

The external focus centers on working with racial and ethnic

groups and low income urban communities to convey EPA and regional employment opportunities. This includes providing minority contractors with related training and information on how to obtain grants, contracts, and other needed assistance. By identifying problems of interest to minority groups and facilitating solutions to

those problems, we will be able to establish a link between minority groups and key Region I personnel. An initiative such as the Summer Intern Program, which brought 22 student interns, most from Historically Black Colleges and Universities, to EPA for 12 weeks demonstrates a successful example of the office's internal and external focus. ♣

Future Challenge

The civil rights agenda for the 1990s will usher in many challenges and opportunities. Recognizing that the year 2000 will bring major changes in the composition of the workforce at EPA, the region must prepare to address the following issues:

- 1) Providing training and support to managers/supervisors to meet the needs of a culturally diverse workforce;
- 2) Enhancing the recruitment, retention, development, and advancement of current EPA employees;
- 3) Increasing economic opportunities for Asians, Blacks, Hispanics, and women through aggressive outreach;
- 4) Establishing and creating meaningful relationships in minority and low income urban commu-

nities and promoting education and awareness to environmental problems and overall EPA and region resources.

Of equal importance in the future to our agenda will be the need to broaden this effort of inclusion and diversity to low income and urban communities that may be adversely affected by, or at risk to, certain environmental hazards. Linkages with community-based organizations, agencies, and institutions will be cultivated to increase urban environmental education as well as awareness to EPA programs and resources.

We also see the need of creating within the region a better understanding and awareness of this office and its goals and objectives. ♣



THE NEW ENGLAND STATES TODAY

The Shift to State Responsibility

Paul Keough



Paul Keough
Deputy Regional
Administrator

I have been with EPA since the early days of 1971 when the regional office officially opened its doors. Many changes have taken place since that time, and nowhere has that change been greater than in the relationship between EPA and the states.

In the early 1970s few states had organized active environmental agencies. Environmental activities were atomized among a number of different agencies and not a part of a larger organization. There were few comprehensive state statutes dealing with pollution.

Today, we find comprehensive environmental agencies in all our New England states. The officials heading these agencies are consid-

ered key members of that state's administration, and the environmental agencies are as important as any other office in state government.

All of our states have comprehensive environmental statutes that cover a wide variety of environmental problems—in fact, many of these laws are more stringent and comprehensive than federal statutes.

In the early 1970s most of the inspections, most of the enforcement actions, most of the implementation of environmental programs in the states were left to EPA. The federal government had more people, more resources to do the job.

That has changed dramatically. The states now have far larger

staffs working for environmental programs than does EPA. There are more people working for the Massachusetts Department of Environmental Protection, for example, than are working in our regional office, and we have six states to cover.

EPA's mission has changed over the years from one of direct implementation of programs in the states to one of oversight and technical assistance. For example, it is the states that do most of the inspections and take most of the enforcement actions. We supplement these actions with an aggressive enforcement program of our own and are heavily involved in carrying out a criminal enforcement program.

During the 1970s and 1980s the emphasis by state and federal environmental agencies was cleaning pollution up at the *end* of the pipeline.

That focus has begun to shift as both state agencies and EPA begin to focus more on pollution prevention—working to reduce the amount of pollution being generated in the first place through waste minimization, recycling, etc. Clearly, this will be the thrust for the 1990s.

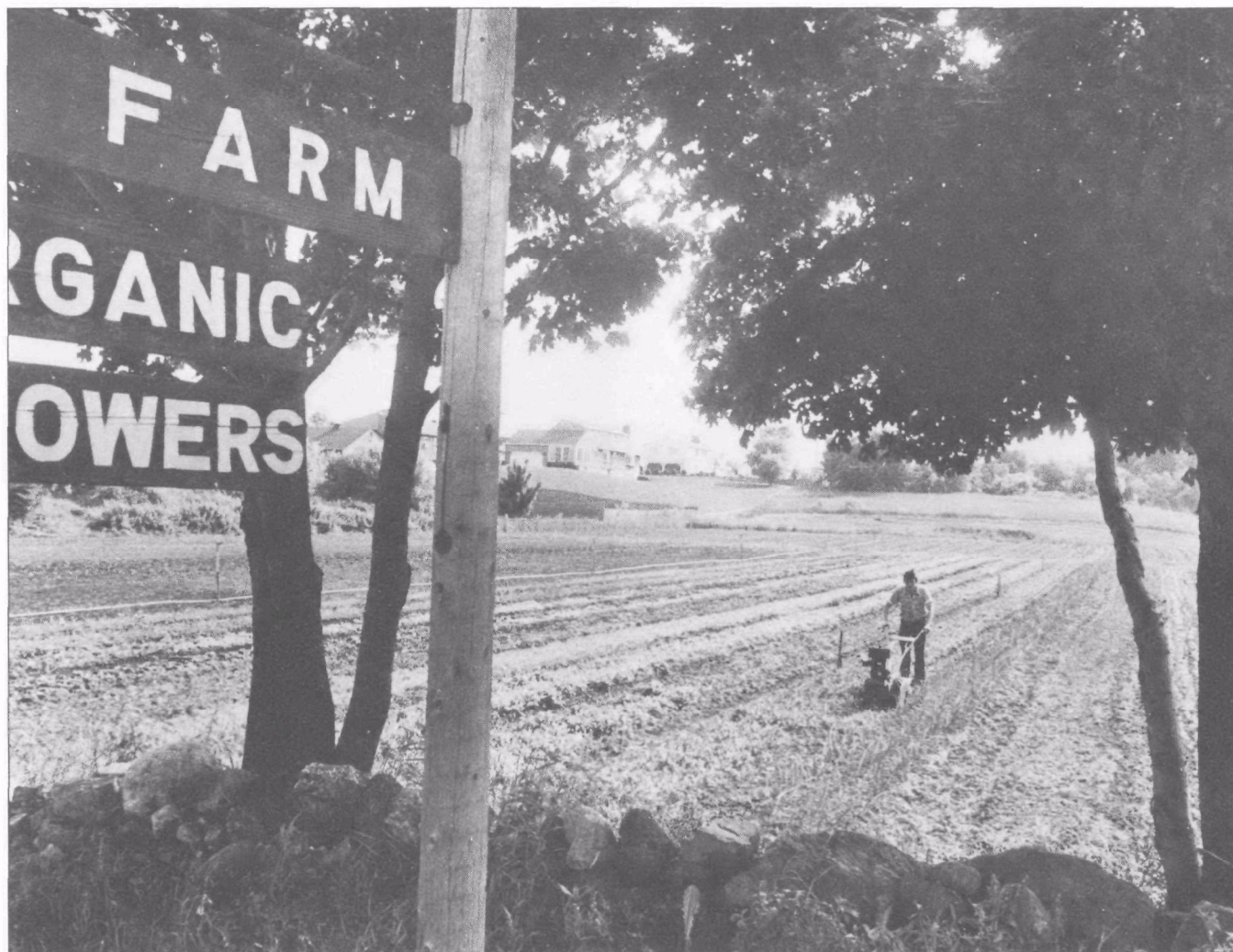
Fighting for resources to support environmental programs has always been a major task at both the state and federal levels. Environmental agencies have prospered for the most part over the last five or

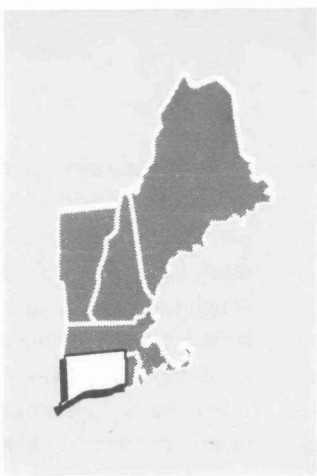
six years, but the problems of deficits at the state and federal levels have begun to cause problems. That's why at both the state and federal levels new ways of raising revenues have been developed, and new systems with revenues going to support designated programs have been put in place. Both at the state and federal levels strategic planning exercises have been undertaken to make sure limited dollars are being put into projects that can accomplish the most good, where the greatest reduction in risk to public health and the environment can be attained.

With limited dollars available I also see the states and federal gov-

ernment becoming increasingly involved with public and private partnerships. There are going to be many environmental needs for which there are no public dollars available, such as construction of drinking water filtration plants. There may be opportunities for the private sector to participate more actively in such projects and to work in partnership with local and state governments.

The federal/state relationship has changed dramatically over the years, but we can say without hesitation that in New England we are all working together to improve and enhance the quality of our environment. ✻





Connecticut

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Leslie Carothers, Commissioner

This past year was a very busy one for the Connecticut Department of Environmental Protection. It was characterized by a significant reorganization of DEP units to form a more cohesive and efficient agency structure. A bold report by the Council on Environmental Quality reviewed the regulatory responsibilities levied on the DEP, balanced these against the financial and personnel limitations imposed, and found—to no one's surprise—that the DEP was under-staffed and under-funded. The Council on Environmental Quality recommended that legislative action be taken to remedy this and it did with the introduction of a new fees bill. And finally, the celebration of Earth Day 20 brought about a refocusing of all the state's efforts to meet the environmental challenges of the next decade.

Earth Day 20

The DEP was involved in the coordination of Earth Day activities throughout the state, as nearly all of Connecticut's 169 towns, and many other environmental groups joined together to reaffirm a commitment to stewardship to our state and our planet. Highlights of the Earth Day weekend were a visit from a delegation of Soviet envi-

ronmentalists to commemorate the catastrophe at Chernobyl and to pledge international cooperation in addressing nuclear problems; a star-studded evening of local celebrities, hosted by Joanne Woodward, to raise funds for environmental programs; and a visit from Senator Gaylord Nelson—often referred to as the founder of Earth Day, 1970—who reviewed the past

Reorganization

Responding to the growing environmental challenges in Connecticut, on July 18, 1989, after a long meticulous selection process, DEP Commissioner Leslie Carothers announced seven appointments to the newly created positions of Bureau Chief.

"Five of these appointees," said Commissioner Carothers, "are veteran managers whose talents and commitment to the DEP's mission are well known. The two new people bring diverse environmental and governmental background to the department and will help to strengthen the ties between the regulatory and resource management work of the DEP."

The new bureau chiefs are as follows: Richard Barlow, Bureau of Waste Management; Richard Clifford, Bureau of Parks and Forests; Adrian Freund, Bureau of Water Management; Robert A. Jones, Bureau of Air Management;



20 years and offered encouragement toward moving into the future. A special Earth Day issue of *Connecticut Environment*, the DEP's highly regarded monthly magazine, was published.

Hugo F. Thomas, Bureau of Environmental Services; and Leslie Whitham, Bureau of Management Operations and Services.

Clean Water Enforcement

More than \$1.6 million was assessed against polluters of Connecticut waters in FY'89. This record level of fines reflects the vigor with which violators of the clean water laws are being discovered by the DEP and prosecuted by the Attorney General.

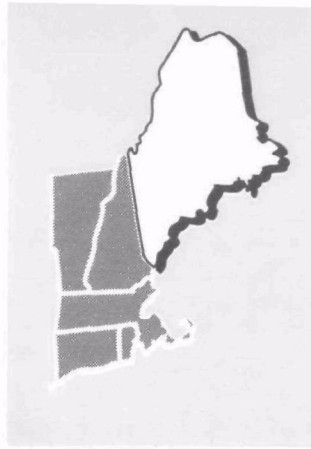
"We are cracking down on polluters as a team," said Attorney General Clarine Nardine Riddle.

To put this into perspective, the total penalties assessed in 1986 totalled only about \$100,000. In 1987, this figure zoomed to \$400,000. In 1988, when Commissioner Carothers and Attorney General Riddle began their enforcement push, this figure reached the \$1 million mark. In FY'89, the figure has continued to climb to \$1.6 million. Clearly, this reflects the DEP's increasing emphasis on enforcement.

Funding Fees for Environmental Programs

In response to the recent report from the Council on Environmental Quality, in which it was clearly pointed out that the DEP has not had sufficient funds to adequately fulfill its environmental mandate, significant new legislation has been passed in this General Assembly to obtain new sources of funds. Two separate funds were established: the Environmental Quality Fund, and the Conservation Fund. The first will draw funds from a variety of permit, annual inspection, and registration fees. The second will draw funds from new or increased fees from a variety of park, fisheries, and wildlife fees. These funds will enable the DEP to hire seventy-three additional staff.

We are proud of the progress we have made. We look forward with enthusiasm and confidence to meeting the environmental challenges of the coming decade. ✱



Maine

DEPARTMENT OF ENVIRONMENTAL PROTECTION

*Dean C. Marriott,
Commissioner*

Wetlands

DEP's Bureau of Land Quality Control developed regulations this year for the protection of wetlands under the Natural Resources Protection Act. The new regulations explicitly recognize that Maine's wetlands differ according to area, value, and function, and they establish appropriate guidelines for each type of wetland. The regulations allow the denial of projects where there are alternatives to wetland alteration or for which impacts would be unreasonable based on a number of criteria. These criteria include the value of the wetland, the cumulative impacts of frequent minor alterations of wetlands, and impacts on significant wildlife habitat.

Underground Tanks

The department and industry representatives worked together to develop a program that would address the problem of obtaining liability insurance coverage for underground oil storage facilities. As a result, the legislature in April 1990 amended Maine's Underground Oil Storage Law to establish a fund to assist owners of underground oil storage tanks who are in substantial compliance with the law. The fund is financed by an increase in the per-barrel fee for transfers of gasoline and other oil products by oil terminal facilities. It will enable owners and operators to meet the federal insurance requirements for their facilities and is expected to ensure adequate funds to facilitate remediation of contaminated sites.

Air License Fees

In 1989 the Bureau of Air Quality Control proposed a new system of air emission license fees based on dollars per ton of licensed pollutant emitted, similar to the fee system proposed in the Clean Air Act Amendments. The proposal was designed to ensure adequate funding of air quality programs and planned bureau initiatives. Although unsuccessful during the 114th session of the Maine Legislature, the department intends to reintroduce the bill at the next legislative session.



Solid Waste

Recently enacted legislation clarified the lines of responsibility for solid waste management in Maine. The new Waste Management Agency, which operates independently of the Department of Environmental Protection, will undertake the screening and selection of solid waste disposal sites and assist municipal and regional recycling efforts.

The DEP's Bureau of Solid Waste Management continues to be responsible for siting, constructing, and managing a range of solid waste facilities and has implemented comprehensive provisions to its rules governing these activities. The bureau is also overseeing a major effort to close and remediate unacceptable solid waste landfills and to provide partial funding to qualified municipalities involved in this effort.

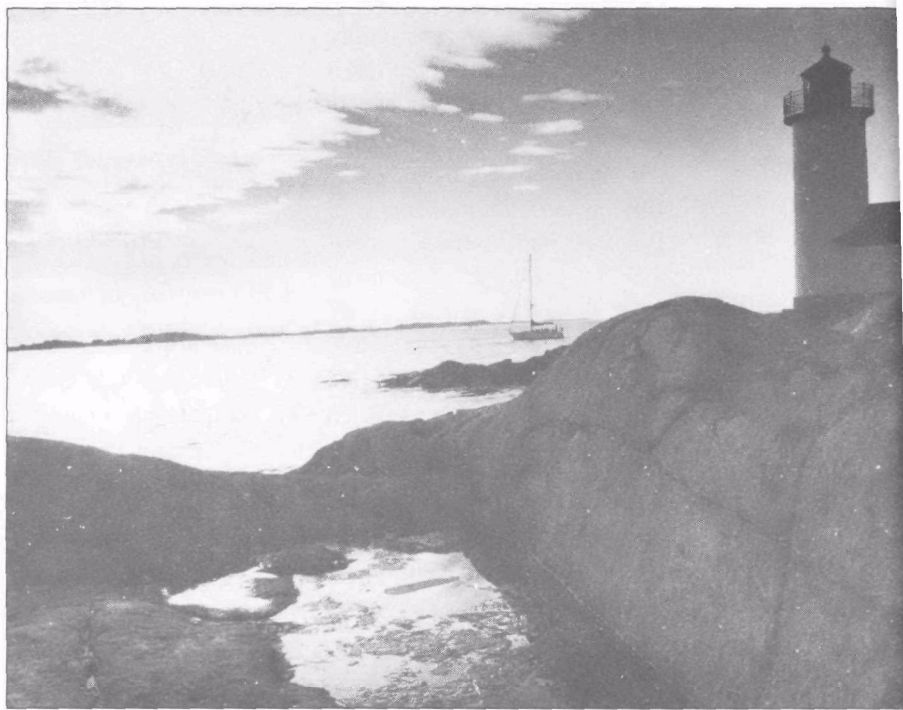
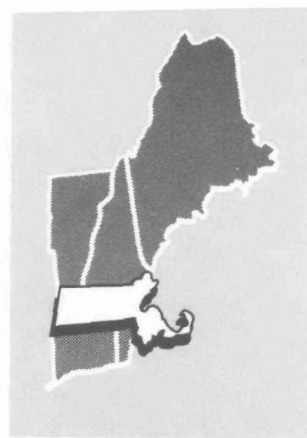
Water Quality

In response to a DEP report describing the problems caused by the continuing presence of color, odor, and foam in Maine waters, a bill was passed by the 114th Legislature mandating reduction. It sets limits for the discharge of color from kraft pulp and paper mills in the state. The limits, scheduled to become effective in 1993, are designed to help achieve full public use of Maine's rivers by cutting the amount of color discharged by about forty percent.

Looking Ahead a Decade

Every day thousands of chemical substances are dumped into the air we breathe. And there is growing public concern over the short-term and chronic health effects of air pollutants in the environment. Responding to this concern, the Bureau of Air Quality Control has established an air toxics inventory

and ranking system to prioritize program development in this area. In the years ahead, the bureau will be developing administrative rules, defining control programs, establishing emission and air quality standards, and collecting background information on these toxic air pollutants.



Massachusetts

EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS

John DeVillars, Secretary

Open Space

In 1989, Massachusetts invested more than \$30 million in the preservation of watersheds, coastal areas, farmland, riverways, local conservation lands and other natural resources; assets that without state aid might well have joined the rolls of countless acres lost to development.

Boston Harbor Cleanup

The Massachusetts Water Resources Authority has proceeded at a record pace and below budget in

charting the awesome task of cleaning Boston Harbor. As the project continues its success will depend on the cooperation of state environmental officials, legislative leaders, and the communities that it both serves and depends upon.

Recycling

Reinforcing the Commonwealth's leadership in recycling, Secretary DeVillars in May announced a sweeping Solid Waste Master Plan that requires a forty-six percent recyclable rate by the year 2000.

Through recycling, the state is in the position of preserving not only the environment but jobs as well.

Permit Reform

The Department of Environmental Protection instituted a system of reforms in order to streamline the permitting process. The new program allows permittees to file with greater ease and less bureaucracy and even comes with a money-back guarantee should the application not be considered in a timely fashion.

Enforcement

Under the direction of Secretary DeVillars, an environmental strike force was established to actively pursue the most egregious violators of the Commonwealth's tough environmental laws. Using existing staff in both the environmental agencies as well as the state Attorney General's Office, the Strike Force has had phenomenal success in charging and prosecuting those who violate the law.

Coastal Regulations

Massachusetts announced new additions to the already stringent Chapter 91 regulations, further protecting and enhancing the natural life and commerce that is dependent on the Bay State's beaches and coastline.

Looking a Decade Ahead

Secretary DeVillars and the more than 3,500 employees of the environmental agencies have made across-the-board commitments to preserving and protecting the natural landscape and heritage of this state for the future residents of the Commonwealth. From innovative programs to active enforcement, the Commonwealth's environmental agencies have charted a course of action that will guarantee a superior quality of life for generations to come.



Governor Judd Gregg announces a program of awarding state recycling grants to municipalities.

New Hampshire

DEPARTMENT OF ENVIRONMENTAL SERVICES

Robert W. Varney, Commissioner

Solid Waste Management

Governor Judd Gregg initiated a significant recycling program designed to help address New Hampshire's solid waste challenges. The state has made \$1.5 million available for municipal recycling grants. Municipalities and solid waste districts may apply to the state for up to fifty percent of approved costs for constructing recycling collection, processing, and storage facilities and for purchasing recycling equipment. "A large proportion of the nearly 3000 tons of solid waste generated daily in New Hampshire is recyclable," said Gregg. "These new funds will encourage communities with no recycling program to begin one, while

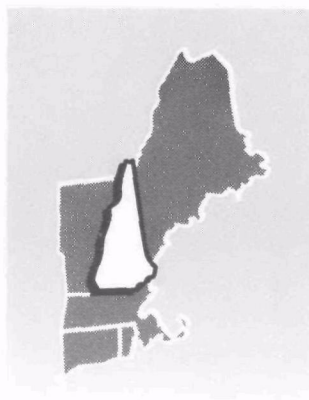
permitting those with recycling programs to expand and improve them."

Air Pollution Control

Air quality monitoring was expanded into the western part of the state with the establishment of continuous monitoring stations in Keene and Claremont. The DES adopted rules controlling toxic air emissions from industrial facilities under the New Hampshire Air Toxics Control Act.

Groundwater Protection

Remedial actions have been conducted at a number of groundwater contamination sites, many of which have been identified through DES's Underground Storage Tank Program. For example, responsible parties have agreed to a cash settlement of \$1.1 million for a new water system in Lochmere, where several wells were contaminated by gasoline. The settlement resulted from over two years of hydrogeological investigations and litigation.



Rhode Island

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

Michael Annarummo, Director

Wellhead Protection Program

More than two thirds of Rhode Island's cities and towns utilize groundwater as the source of drinking water for their public water systems. In order to protect these water sources, the Department of Environmental Management has developed a wellhead protection program.

As part of this new program, RI DEM will delineate groundwater areas that supply public systems. The suppliers will be required to identify pollution sources within these areas and to develop plans to protect groundwater within the wellhead area.

The Department's groundwater staff will provide technical assistance in all aspects of the program but the program's success will depend on a close working relationship between DEM and municipal suppliers.

Nonpoint Source Management Plan

A comprehensive management plan has been developed to address specific sources of nonpoint source pollution in Rhode Island and to provide strategies for reducing pollution. Some of the major sources identified are urban runoff, failed septic systems, and recreational activities associated with marinas and mooring areas.

An implementation plan includes strengthening existing regulatory programs, establishing new regulations, improving inspection and enforcement, encouraging municipalities to establish local initiatives, refining assessment of nonpoint sources of pollution,

strengthening public education efforts to increase general awareness of the problem, and improving coordination between regulatory and non-regulatory programs within the Department of Environmental Management.

Medical Waste

Rhode Island is participating in the federal Medical Waste Tracking Program. All regulated medical waste generated in Rhode Island must be handled according to rigid regulations from the time of generation in a hospital or doctor's office until the medical waste reaches its ultimate destination at an incinerator or landfill. EPA will use this demonstration program to prepare various reports to Congress so that national medical waste policies can be explored.

Note: RI asked to be included in this program, after medical waste landed on a number of RI beaches during the summer of 1988.

Narragansett Bay

Under a new policy nearly 4,000 acres of the upper bay waters of Narragansett Bay will be re-opened for shellfishing. This will allow quahoggers to harvest shellfish from the productive beds north of Prudence Island for approximately twice as many days each year. This policy results from water quality testing and analysis by the Division of Water Resources that led to the determination that only under

certain adverse conditions, when rainfall exceeds one inch during a twenty-four hour period or when bypasses at sewage treatment plants cause large amounts of raw sewage to flow into the bay, will shellfish beds be closed. In 1989, more than 10,000 acres of the upper bay were closed to shellfishing for 263 days.

Reorganization

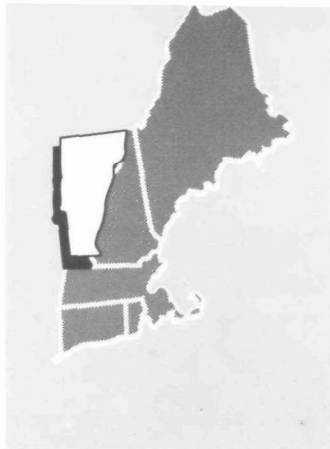
In an effort to streamline the regulatory process and strengthen environmental protection efforts, Governor Edward D. DiPrete signed legislation creating the Department of the Environment.

The new department will have three regulatory branches—Environmental Protection, Environmental Management, and Coastal Resources Management, which will be headed by commissioners with final authority over regulatory permitting and enforcement decisions. The director of the DOE will not be involved in decisions on individual regulatory permits or enforcement matters involving the regulatory branches. The director will, however, be free to both advocate and intervene in the process and will retain the right to promulgate rules and regulations.

Recycling

Now in its second year, Rhode Island's mandatory recycling program for both commercial and municipal waste is operating in thirty-nine cities and towns. Recyclables are sorted at a Materials Recovery Facility and planners in the state claim that as much as twenty percent of all solid waste is being recycled. Recycled items include newspapers, assorted glass bottles, plastic soda and milk bottles, aluminum and tin cans. A pilot program to recycle corrugated cardboard began in August 1990. ♻





Vermont

AGENCY OF NATURAL RESOURCES

Timothy Burke, Secretary

Comparing Risks

To ensure that Vermont's environmental programs are addressing the state's most serious problems, the agency initiated the "Strategy for Vermont's Third Century," a comparative risk study much like Region I's "Unfinished Business in New England." Agency scientists and staff from the Departments of Health, Agriculture and Development, and Community Affairs are estimating the risks posed by

twenty environmental problems to Vermont's ecosystems, human health, and quality of life. The risk reports will provide the basis for a ranking of the problems at the end of 1990 and the development of risk management strategies in 1991.

Because risk data alone cannot make good public policy, an eighteen-member public advisory committee selected the twenty problems for study and approved a set of analytical criteria after hearing from hundreds of citizens as well as the state government's technical teams. This fall, the advisory committee will rank the problems based on scientific information and an understanding of Vermonters' values. EPA is financing the project.

Hazardous Waste

In 1990 the Vermont Legislature enacted a comprehensive waste reduction and hazardous waste siting measure. The new law requires Vermont generators of hazardous wastes to review all processes that result in emissions, discharges, or disposal of hazardous materials and to develop a comprehensive reuse and reduc-

tion plan. It establishes a state planning and siting process designed to provide necessary treatment storage and disposal capacity consistent with Vermont's commitment to the Regional Capacity Assurance Planning process. It also requires on-the-shelf labelling of hazardous consumer products.

Public Trust Doctrine

The public trust doctrine, derived from English and Roman common law, was recently interpreted to include filled land that was once under water. The Vermont Supreme Court ruled that 32 acres of Lake Champlain waterfront land owned by Central Vermont Railway, Inc. and originally filled for railroad construction, must only be used for a public purpose with the discontinuance of the rail service. Chittenden Superior Court overturned an environmental permit for construction of a marina in Lake Champlain because the developer did not prove that the proposed encroachment would serve a public purpose. A legislative summer study committee was appointed to review these legal decisions for their impact on state



regulatory programs affecting water withdrawals, in-stream encroachments, and docks and marinas.

Growth Management Act— One Year Later

Strong concerns about individual property rights have prompted some Vermont citizens to urge repeal of the statewide Growth Management Act that became law in 1989. Act 200 offers incentives for towns to plan and lays out statewide planning goals. About half of Vermont's towns voted at a town meeting on whether to support Act 200. Of the 122 towns that voted, ninety-two voted no, fourteen voted yes, and sixteen tabled the vote. However, there is still widespread support for local, regional, and state planning. Most of the towns that voted no are proceeding to create or revise their town plan.

Wetlands

Three and a half years after the legislature passed Vermont's wetlands law, the Water Resources Board adopted rules for the state's new wetlands protection program. The new rules designate wetlands on federal resources maps as Class II "significant" wetlands deserving protection from development. About forty percent of Vermont's land area falls in the category of "significant wetland." The rules allow for compensatory mitigation, which means a developer could impact a wetland if s/he can re-create the wetland's functions elsewhere.

Northern Forest Lands Study

The Northern Forest Lands Report, a year-long congressionally funded study, was released. It offers a plan of action and strategies to protect the working landscape of some 26 million acres of forestland throughout the Northeast.



Lake Champlain

A Citizens Advisory Committee on Lake Champlain Future was created and funded to serve as liaison between the public and state agencies that manage the lake. The committee is charged with producing an annual State of the Lake Report and recommending a management policy for the lake.

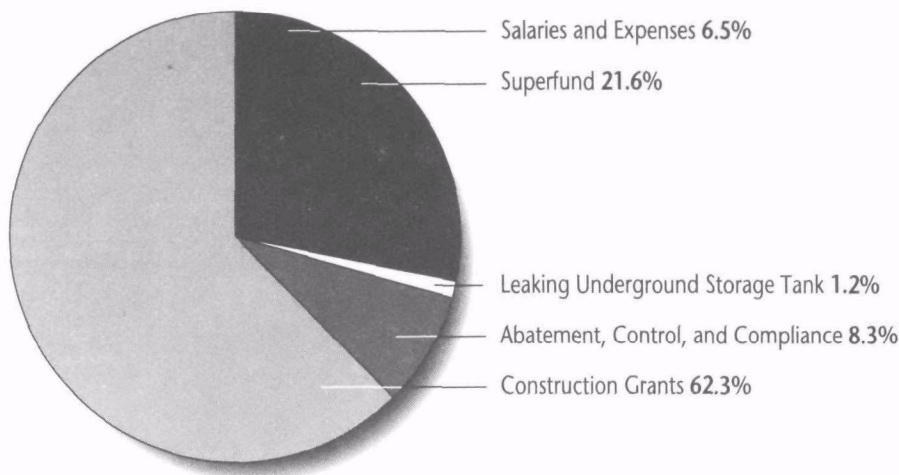
Funding for Land Protection

The legislature approved \$7.25 million for the state's Housing and Conservation Trust Fund, created for critical housing and conservation projects. State tax reimbursement programs for forest and agricultural lands were fully funded for this fiscal year despite the state's economic belt-tightening.

Governor's Commission on Vermont's Economic Future

According to the commission's report, entitled "Pathways to Prosperity," the state must develop an economic strategy that will protect "a future landscape that today's Vermonters would recognize, and a standard of living that all of tomorrow's Vermonters will cherish." The report recommends protecting Act 250, Vermont's Land Use and Development Law, as an integral part of the state's economic strategy, as well as the implementation of Act 200, the Growth Management Law. The commission recommends protecting natural resources and initiating new measures for agriculture and forestry.

Financial Overview



	Salaries and Expenses	Superfund	Leaking Underground Storage Tank	Abatement Control & Compliance	Wastewater Treatment Construction Grants	Total EPA Region 1
Personnel Compensation and Benefits	16,390,000	6,753,400	276,300			23,419,700
Travel	585,600	360,300	19,700			965,600
Operating Expenses	2,895,300	2,365,800	52,800			5,313,900
Interagency Agreements		16,455,900				16,455,900
Program Contracts		29,473,900		1,989,500		31,463,400
Cooperative Agreements		10,531,100	3,313,500			13,844,600
Grants to States				23,403,300		23,403,300
Wastewater Treatment					189,910,100	189,910,100
Construction Grants						
Total	19,870,900	65,940,400	3,662,300	25,392,800	189,910,100	304,776,500

REGION I Work Force

Engineers 26%
Environmental 178,
Chemical 7.
Total 185.

Life Scientists 2%
Acquatic Biology 9,
Microbiology 2, Other 6.
Total 17.

Physical Scientists 12%
Environmental 52, Geology 10,
Chemical 13, Hydrology 8.
Total: 83

**Attorneys and
Paralegals 8%**
Attorneys 51, Law Clerks 4,
Paralegals 4.
Total: 83.

**Environmental
Protection 14%**
Specialists 99.
Total: 99.

Technicians 0.2%
Engineering Technician 1,
Physical Science Technician 1.
Total: 2.

**Administrative
Support 17%**
Finance 23, Personnel 13,
Computers 18, Grants 13,
Contracts 7, Management
and Program Analysis 17,
Public Affairs 10, Support
Services 17, Other 4.
Total:122

**Secretarial &
Clerical 20%**
Secretarial and Clerical 143.
Total: 143

**Total Number of
Employees: 710**

For Further Information

If you would like additional information about specific EPA programs, please write the Office of Public Affairs, U.S. Environmental Protection Agency, John F. Kennedy Federal Building, Cambridge Street, Boston, MA 02203, or call (617) 565-3420, or visit us at One Congress Street.

The EPA library holds an extensive list of environmental titles, maintains a limited supply of EPA publications, and coordinates the distribution of environmental films and videos.

For extensive research, the EPA library contains books, documents, EPA reports, journals, and microfiche reports about air, water, and solid and hazardous waste issues. An on-line computer system puts

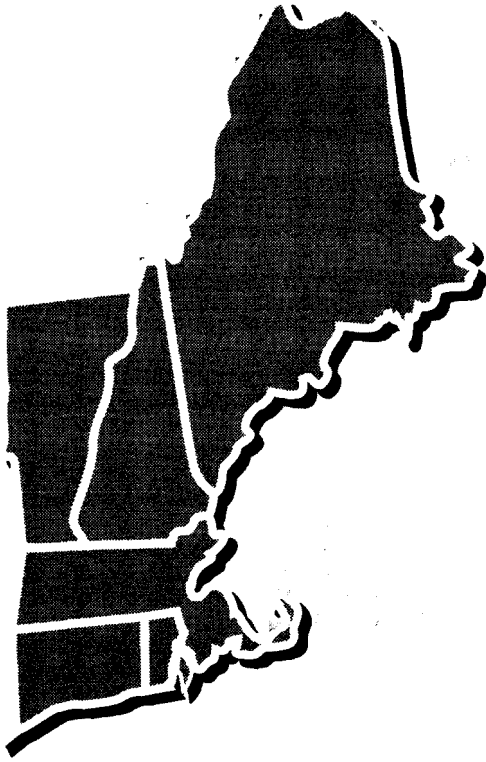
the EPA at your fingertips providing an overview of the agency from environmental laws and regulations to organizational charts of the agency headquarters in Washington and the ten regions throughout the country. The library is located at the EPA offices at One Congress Street, Boston, on the 11th floor. Hours are Monday through Friday, 8:30 a.m. to 4:30 p.m. For further information, call the library at (617) 565-3300.

If you encounter an environmental problem, report it first to your local, and then state pollution control agency at the telephone numbers which follow. For specific information about EPA programs, call the following EPA telephone numbers:

U.S. EPA, New England Office (Region I)

	(617) 565-3420
Asbestos	(617) 565-3744
Air Division	(617) 565-3800
Automobile Complaints	
Massachusetts	1-800-631-2700
Other N.E. States	1-800-821-1237
Chemical and Oil Spills,	
24 hour number	(617) 223-7265
Government Relations	(617) 565-3414
Impact Statement Review	(617) 565-3414
Lexington Lab	(617) 860-4300
Pesticides	(617) 565-3932
Pesticides Hot Line	1-800-858-7378
Personnel	(617) 565-3719
Regional Counsel	(617) 565-3451
Title III	(617) 860-4385
Superfund	(617) 573-9610
Underground	
Storage Tanks	(617) 573-9604
Waste Division	(617) 573-5700
Water Division	(617) 565-3478
Permit Compliance	(617) 565-3493
Surface Water Quality	(617) 565-3544
Drinking Water	(617) 565-3610
Groundwater	(617) 565-3610





New England State Environmental Agencies

Connecticut Department of Environmental Protection

165 Capital Ave.
Hartford, CT 06106
(203) 566-5599
24-hour Spill number:
(203) 566-3338

Maine Department of Environmental Protection

State House, Station 17
Augusta, ME 04333
(207) 289-7688
24-Hour Spill Number:
1-800-482-0777

Massachusetts Executive Office of Environmental Affairs

100 Cambridge St., 20th Floor
Boston, MA 02202
(617) 727-9800
24-Hour Spill Numbers:
Business Hours (617) 292-5648
After business hours (617) 566-4500
(State Police Communication Center)

New Hampshire Department of Environmental Services

Health and Human
Services Building
6 Hazen Drive, P.O.Box 95
Concord, NH 03301
(603) 271-3503
24-Hour Spill Number:
1-800-346-4009

Rhode Island Department of Environmental Management

9 Hayes St.
Providence, RI 02908
(401) 277-6800
24-Hour Spill Number:
(401) 277-3070

Vermont Agency of Natural Resources

103 South Main St.
Waterbury, VT 05676
(802) 244-7347
24-Hour Spill Number:
1-800-641-5005



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