

ECONOMIC OPPORTUNITIES

Pollution is nothing but the resources we are not harvesting. We allow them to disperse because we've been ignorant of their value.
 —Buckminster Fuller



C. Franks

EPA and its partners in New England are proving that economic progress and environmental protection are not mutually exclusive and can often be mutually beneficial. As New England's economic health improves, its citizens also continue to protect and preserve their natural heritage. For example, EPA's Toxic Release Inventory reports show greater decreases in total waste generated by New England companies than in any other area of the country, which is a good indicator of the success of our pollution prevention and source reduction programs (Figure 1).

Environmental compliance is EPA's own bottom line. We use strong regulatory enforcement, combined with incentives and technical assistance, to help businesses achieve – and stay in – compliance with environmental laws. As importantly, we help New Englanders exceed environmental standards through pollution prevention, often helping them to reap significant dividends in the process.

REACHING OUT TO HELP: ASSISTANCE & POLLUTION PREVENTION

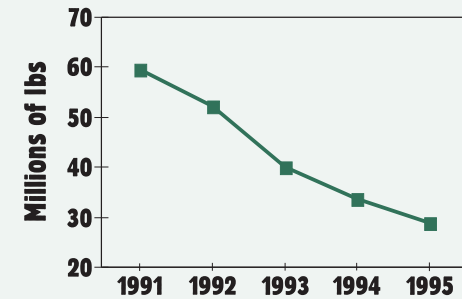
EPA's regional Assistance and Pollution Prevention team has been actively helping businesses and organizations throughout New England by responding to more than 7,000 requests for technical assistance, sponsoring more than eighty workshops and training sessions, and visiting 150 businesses and municipalities. The team has also organized innovative technology demonstration projects, developed compliance manuals, and provided nearly \$1 million in grants for pollution prevention projects.

BRIGHT IDEAS

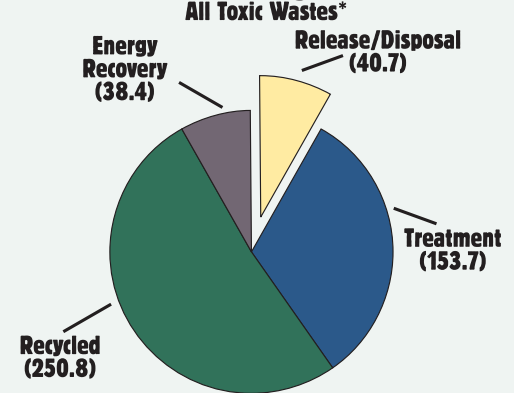
Electricity rates in New England are among the highest in the nation. EPA's Green Lights and ENERGYSTAR programs help companies to invest in energy saving measures while reducing operating costs and enhancing their competitive position. Experience has shown that investments in energy efficiency often pay for themselves within a few years. Average rates of return can exceed 45%.

Economics Figure 1 Toxic Releases Are Declining In New England

Releases to Land, Air, & Water



1995 Waste Management Profile



*Wastes in millions of pounds
 Source: Toxic Release Inventory, 1991-1995

GREEN LIGHTS FOR GILLETTE

The Gillette Company in Boston, a charter member of the Green Lights program, has participated in EPA's pollution prevention programs for years. Under EPA's "33/50" Program, Gillette reduced releases and off-site disposal of targeted chemical wastes by 99%. Under EPA's WasteWi\$e program, Gillette has donated 12,500 pounds of materials to the Boston Schools Recycling Center and given more than 1,300 pieces of office equipment to local nonprofit organizations. Gillette was selected as a participant in EPA's national Environmental Leadership Program in 1995, and more recently, began a project to develop and test an innovative environmental compliance and auditing program, StarTrack.

Because these programs reduce demand for electricity, they also reduce emissions such as sulfur dioxide, nitrogen oxides, particulates, mercury, and carbon dioxide from power plants. From 1991 to the present, people who have participated in Green Lights in New England have kept more than 851 million pounds of carbon dioxide, 6.8 million pounds of sulfur dioxide, and 2.4 million pounds of nitrogen oxides from entering the atmosphere, while saving 773 million kilowatts of energy, which adds up to approximately \$21 million per year.

Innovative EPA programs such as the StarTrack third party compliance program are examples of ways in which we are encouraging and rewarding businesses who work to exceed environmental standards. In 1996, EPA recognized twenty-one New England companies as environmental leaders; nine of these have agreed to participate in the StarTrack program. StarTrack builds on ISO 14001 – an international system of environmental management standards – to encourage businesses to scrutinize their environmental compliance and management systems, and establish plans for improving performance. StarTrack provides limited penalty amnesty, no routine inspections, simplified reporting, and expe-

ditioned permitting in exchange for an agreement to obtain an independently certified assessment of the company's environmental management and compliance performance. Companies that have begun these efforts have already reaped significant environmental and economic rewards, including pollution prevention, a healthier bottom line, and a greater degree of trust and respect from the public.

In March 1996, President Clinton signed the Small Business Regulatory Enforcement Fairness Act. Under this authority, EPA issued a Policy on Compliance Incentives for Small Businesses. Civil penalties are eliminated for businesses that satisfy policy conditions, including prompt disclosure and correction. As part of this focus, EPA's New England Office designed a pilot project for small and medium-sized metal finishing businesses in Maine and New Hampshire. The CLEAN program offers free, on-site compliance and pollution prevention audits, and enforcement amnesty for any violations discovered in the process, so long as participating companies agree to correct violations found during the audit and undertake an additional "beyond compliance" pollution prevention project. Besides expanding its regional focus, the CLEAN program will focus on printers and wood product companies in 1997. New England's Small Business Ombudsman is also available to help small businesses with compliance issues.

EPA's new Partners for Change program is based on the idea that every New England business and municipality, no matter how large or small, can do something to improve the environment and should be recognized for its efforts. Anyone can apply, and by undertaking a pollution prevention or waste reduction project such as implementing process changes, instituting physical or equipment modifications, or engaging in education and outreach, participants can receive an EPA Partners for Change window decal and "green" business benefits.

ON THE ROAD TO RECOVERY

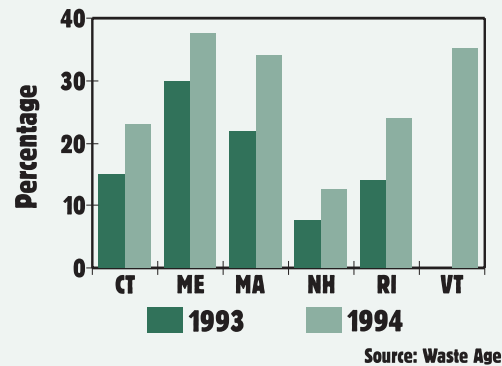
The Brownfields Initiative, part of EPA's Superfund Program, is helping to turn previously contaminated Superfund sites into environmentally healthy, economically productive areas in fourteen New England communities. One example is in a low-income elderly housing community in Bangor, Maine, where a much-needed supermarket is being built, with help from grants and partnerships with the local government, on the site of a former coal gasification plant. Private efforts have begun to acquire the property, and the City of Bangor estimates that the new supermarket will add \$5.1 million to the local tax base and create 150 new jobs. Similar efforts in Connecticut and Massachusetts will put more than 250 acres of previously contaminated land back into productive use.

PEOPLE MAKING A DIFFERENCE: Chris Ford, Printed Circuit Corporation

Chris Ford is an environmental engineer handling all environmental, health, and safety issues for Printed Circuit Corporation of Woburn, Massachusetts. Chris is a strong advocate of pollution prevention and an ally of EPA's New England Environmental Assistance Team (NEEAT). A certified Toxics Use Reduction Planner, he is an instructor at the Toxics Use Reduction Institute (TURI) in Lowell, Massachusetts, has educated EPA technical staff about the electroplating industry, and has traveled as far as Mexico to teach companies about pollution prevention. At Printed Circuit Corp., Chris led a group in implementing projects that reduced the company's sulfuric acid use by 30 tons per year, reduced use of ammonia by 100,000 pounds a year, and reduced acid waste by 70% through the use of an acid recycling unit; these efforts save the company a significant amount of money every year.

Economics Figure 2

Recycling Rates In New England



WASTE NOT

New Englanders generate 4.3 pounds of solid waste per person each day. Although the amount of solid waste generated each year has been increasing since 1960, the rate of growth has slowed recently as a result of efforts to promote source reduction, reuse, recycling, and composting. At the same time, the proportion of waste being recycled in all six New England states has been growing (Figure 2).

With funding from EPA, the Northeast Recycling Council (NERC) works to develop markets for recycled products. The recycling industry provides more than 103,000 jobs in the northeast, adding \$7.2

GRANITE STATE PLATING GETS CLEAN

Granite State Plating (GSP) in Rochester, New Hampshire, wanted to find opportunities for pollution prevention and compliance in addition to those already in place. The New Hampshire CLEAN team is working with GSP to identify inexpensive, good housekeeping practices that supplement their operations, which had already eliminated cadmium, chrome, nickel, cyanide, and halogenated solvents from GSP's wastewater discharges. Further improvements to GSP's wastewater treatment system are expected to reduce its rinse water waste generation by 95%. This project demonstrates how industry can economically produce a quality product while meeting – and even exceeding – environmental requirements through pollution prevention practices and new technologies.

The Northbridge Risk Reduction Demonstration Project: Good News for Homeowners

In a model of government cooperation and community participation, EPA, the Massachusetts Department of Environmental Protection (DEP), and Massachusetts Department of Public Health (DPH) are working together in Northbridge, Massachusetts, to demonstrate the cost-effectiveness of “low-tech” measures for reducing environmental health risks and cleanup costs that have come to be associated with lead-contaminated soils. Six children living in a neighborhood of seven duplex homes were found to have blood lead levels that remained elevated even after their homes were de-lead in accordance with DPH lead paint requirements. Too much lead in the body can cause serious damage to the brain, kidneys, nervous system, and red blood cells, and can affect a child's physical development and ability to learn. Soil containing residues from lead-based paint was believed to be the culprit. The contaminated soil was isolated by combining the use of pavement, synthetic cover material, and a variety of landscaping techniques. In this way, children's exposures to lead-contaminated soil and risk of further lead poisoning were cost-effectively reduced without having to excavate every yard of soil at enormous expense and inconvenience to residents. This demonstration is good news for homeowners, environmental regulators, and public health officials who are struggling to deal with similar problems around the country.

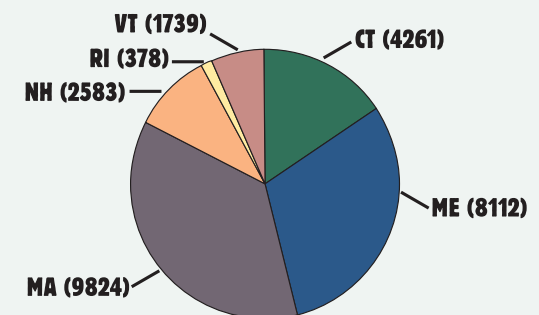
billion to our economy (Figure 3). Through the efforts of EPA, the National Recycling Coalition, and many other New Englanders, recycled products are now publicly traded on the Chicago Board of Trade. Combined with state and local initiatives, these efforts are removing millions of tons of materials from the solid waste stream every year.

EPA's WasteWi\$e program encourages participants to reduce and recycle their wastes, which often results in significant savings. For example, Hasbro, Inc., a Rhode Island-based toy maker, reduced the thickness of polypropylene bags by 12.5%, saving

an estimated \$10,000 in 1995, and reduced the thickness of material used in its corrugated shipping containers by 15%, saving the company approximately \$400,000.

Economics Figure 3

Jobs Created by Recycling



Source: Northeast Recycling Council

THE LAST RESORT: ENFORCEMENT

EPA's New England Office is committed to working with businesses and encouraging them to come forward with their problems and to cooperatively reach environmental standards. In cases where companies disregard important environmental regulations or gain unfair economic advantage from failing to comply with the law, however, EPA is prepared to use its enforcement authority to remedy the situation.

In 1996, EPA's New England workforce organized its inspection and enforcement resources to focus on public agencies, industrial sectors, urban environments, and sensitive ecosystems, accomplishing more than 800 inspections and 170 formal enforcement actions in the region (Figure 4).



PEOPLE MAKING A DIFFERENCE: Ihab Farag, University of NH

EPA's CLEAN/Pollution Prevention program for metal finishers would not have been possible without the assistance, dedication, and energy of Ihab Farag at the University of New Hampshire (UNH). UNH received a grant from EPA to implement a program offering free, on-site compliance and pollution prevention audits to small and medium-sized metal finishing companies. In order to market this innovative program, Ihab built on his existing partnerships with industry and the state, visiting businesses in New Hampshire and leading the audit teams that drafted agreements with companies, as well as producing "This Old Factory," a pollution prevention training video for metal finishers.

MAKING THE BEST OF IT: SUPPLEMENTAL ENVIRONMENTAL PROJECTS

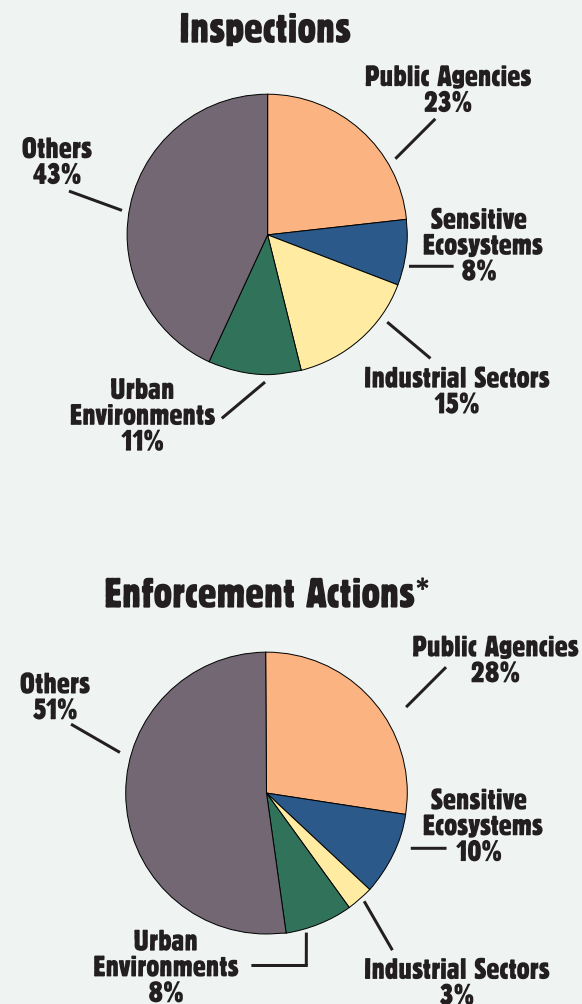
EPA's New England Office leverages its penalty powers to encourage Supplemental Environmental Projects as part of settling enforcement cases. Since 1993, we have settled more than sixty cases that included nearly \$12 million in projects to benefit the New England environment. In 1996, settlements totalling \$1.9 million have funded: over \$1.6 in pollution prevention/reduction projects; \$160,000 in environmental restoration projects; and the remainder in efforts including environmental audits, support for local emergency planning commissions, and public outreach.

Examples of Supplemental Environmental Projects:

- In settling an EPA action against Goodyear Tire and Rubber Company for violations of the stratospheric ozone protection laws, the company has made a commitment to invest more than \$700,000 in a company-wide recycling program for automobile antifreeze. Under this agreement, Goodyear will purchase automotive antifreeze recycling machines to use at 568 Goodyear stores nationwide. The new equipment will clean and recycle antifreeze removed from cars during servicing. The antifreeze can then be put back into cars and reused, saving resources and protecting our environment.
- Monsanto Chemical Company has more than met requirements in its settlement with EPA for violations of the Resource Conservation and Recovery Act. Through a \$150,000 study on how to reduce generation of waste, 3.5 million pounds of methanol-rich distillate has been totally eliminated from its waste stream, and 1.15 million pounds of formaldehyde and 647 pounds of sodium hydroxide are removed annually. As a result, Monsanto was able to shut down its on-site furnace and reduce operating costs.

Economics Figure 4

EPA Inspections & Enforcement Actions Fiscal Year 1996



* May not have resulted from same year inspection