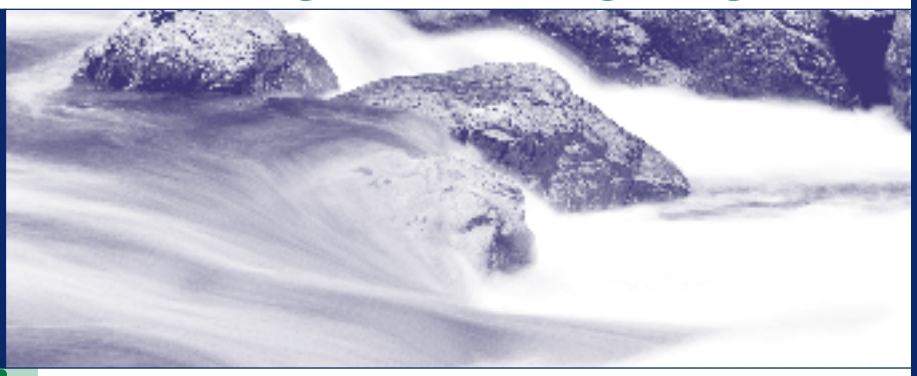
Program Highlights



The basic principle of Project XL is that by allowing flexibility in regulatory or process requirements, we can help businesses, communities, and Federal facilities to adapt and innovate in ways that could be better for the environment and public and less burdensome on the regulated entity. The innovations developed by project sponsors spur environmental performance that surpasses current compliance, improve economic benefits, and reduce operational costs, and the sponsors more effectively engage the public in decisions that affect their local environment. The long-term value of Project XL depends on the degree to which individual projects are successful at the local level for the environment, the project sponsors, and community stakeholders. As more projects are implemented, analyses of the value of projects become increasingly important. This section highlights the accomplishments of projects in three main areas: benefits to the environment, benefits to sponsors, and benefits to community stakeholders. This summary is based on a few projects that have been underway for several years. As more projects mature, EPA expects to see benefits to the environment, sponsors, and stakeholders continue to expand and grow.

Benefits for the Environment

Superior environmental performance (SEP) is one of the most critical elements of all projects. During the development of any project, all participants closely examine the projected environmental performance as a measure of the success of an experiment. As a project is implemented, its environmental performance is tracked and reported by the project sponsor, EPA, and stakeholders. EPA's goal (and challenge) is to test new tools in individual pilot projects, evaluate and learn about the keys to their effective use, and then transfer these new tools with their related SEP into appropriate system-wide practice. It is important that projects continue to meet SEP goals such as reducing emis-

sions, reusing resources, recycling wastes, and encouraging "smart growth" redevelopment. For example, the Intel and Weyerhaeuser projects, two of Project XL's pioneering efforts, have been consistently reporting a stream of environmental benefits since inception such as capping air emissions below current regulatory requirements, increasing recycling of solid waste, and reducing hazardous waste generation. The Crompton (formerly Witco) Sistersville project reports that through its project it has prevented almost 3 million pounds of waste from entering the environment over the last three years. Table 1 shows some of the cumulative environmental benefits of five of the projects that are currently fully implementing their experiments and are reporting results from 1997 through the first half of 2000. As Project XL expands to incorporate a wide variety of projects, EPA expects to see a growing set of environmental benefits ranging from reduced vehicle miles traveled and preservation of open space acreage (Atlantic Steel), to the greater inclusion and voluntary participation of non-regulated entities into environmental programs (Massachusetts Department of Environmental Protection).

For many projects underway, the sponsors must first make significant capital investments or process changes before anticipated environmental benefits can be realized. Therefore, as existing experiments mature and new projects are implemented, XL's positive environmental impacts will continue to grow. In fact, the gains demonstrated so far are small compared to the environmental benefits that will continue to accrue over time. A summary of the environmental progress of individual projects is described in the Project Status and Results section below.

Table 1: Selected Cumulative Environmental Benefits*

	1997-1999	1997-2000
tons of criteria air pollutants—nitrogen oxides (NO_x), sulfur dioxide (SO_2), particulate matter, carbon monoxide (CO) emissions eliminated.**	20,853	31,775
tons of volatile organic compounds (VOCs) emissions eliminated.**	2,636	4,028.7
tons of solid waste recycled.	2,089	10,855
tons of nonhazardous chemical waste recycled.	690	1,648
tons of hazardous waste recycled.	613	1,115.6
millions of gallons of water reused.	1,069	1,846
tons of methanol reused.	311	386.8

* This summary is based on results reported by Crompton Corporation Sistersville Facility (formerly Witco), Intel, Molex, Vandenberg Air Force Base, and Weyerhaeuser.

** Eliminations in emissions are calculated by subtracting reported actual emissions from established baselines for the environmental parameters for each project.

Benefits for Project Sponsors

One criticism of Federal environmental protection efforts is that EPA's regulatory requirements can be too prescriptive. For years, EPA has heard, "Give us environmental goals to meet, but don't tell us how to meet them." For the past decade, EPA has been building greater flexibility into regulatory programs through trading of emission "allowances" and other approaches. Through Project XL, EPA is providing companies and other project sponsors with additional opportunities to demonstrate their abilities to find innovative approaches to environmental protection. We are finding that a little flexibility can go a long way toward getting better results.

Under Project XL, project sponsors have gained operational flexibility: expediting or consolidating permitting, reducing the amount and frequency of record keeping and reporting, authorizing facility-wide emission caps, and supporting innovative technology. As a result of operational flexibility, project sponsors, in turn, gain additional benefits from improved administrative or technological efficiencies, industry recognition and leadership, better leveraging of employee expertise, better community and stakeholder relations, and improved relationships with regulators. EPA encourages firms to view the flexibility provided by Project XL as an opportunity to create real incentives for environmental improvement, whether they are financial, competitive, technological, community-related, or otherwise. For example, Intel has announced that it will take advantage of some these concepts in their business planning. Early this year, Intel announced it will build its first 300-millimeter, high-volume production manufacturing facility in Chandler, Arizona. Intel will be able to expand the Chandler facility under its existing air emissions cap for the Chandler facility, which was established under the XL project in1996. As shown in Table 2 on the following page, project sponsors are reporting actual and anticipated economic gains.

As Project XL continues, the significance and variety of operational and economic benefits for project sponsors will expand and compound over time. For example, as part of its newly initiated project, Andersen Corporation expects to save administrative costs by integrating state and Federal emergency response planning and training requirements into a more common sense and useful approach. The New England Universities Laboratories project has been designed to develop a more cost-effective plan for regulating university laboratories, to implement programs to enhance laboratory safety, to illustrate better systems to manage laboratory environmental impacts, and to serve as a potential model for other colleges and universities throughout the country so that operational and economic benefits will accrue to a wider spectrum of regulated facilities.

Table 2: Economic Benefits for Select Project Sponsors

Crompton Corporation Sistersville Facility (formerly Witco) saved $58,000 from waste minimization and pollution prevention (WM/PP) activities in 1998 ($42,000 in one-time activities and $16,000 in savings from recurring air emissions reductions and methanol recycling.) As of July 2000, 67 WM/PP initiatives have been implemented at the Sistersville plant, resulting in a total cost savings of an additional $1,010,000 during 1997-1999, and the first half of 2000. Crompton expects future savings of $800,000 over five years as a result of a negotiated deferral under rules of the Resource Conservation and Recovery Act (RCRA). The company also identified potential recurring cost savings of $620,000 per year to be achieved through WM/PP activities.

Department of Defense Elmendorf Air Force Base (Elmendorf AFB) aims to streamline the application, implementation, management, and renewal process for Elmendorf AFB Title V permit, through reduced monitoring and record keeping. Elmendorf AFB estimates that total monitoring, record keeping, reporting, and overall permit management costs will decrease by about 80 percent, yielding about $1.5 million in savings over six years.

Department of Defense Vandenberg Air Force Base (Vandenberg AFB) negotiated a protocol for source testing and validation with the Santa Barbara County Air Pollution District that is $2,400 cheaper than the standard EPA test ($600 per test rather than $3,000 per test) This complies with administrative requirements to upgrading its infrastructure, pollution prevention programs, innovative technologies, and other approaches that will cost effectively reduce air emissions below mandated levels.

HADCO has gained some cost savings from reducing the number of sludge shipments required, as a result of its voluntary installation of a sludge dryer. HADCO expects to see cost savings from sending its sludge directly to a recycler instead of shipping it to an intermediate processor.

Intel has avoided millions of dollars worth of production delays in the competitive quick-to-market semiconductor industry by eliminating 30 to 50 reviews per year under a facility-wide permit that allows for equipment changes, process changes, and new construction at the site as long as its overall air quality limits are met. Early this year, Intel announced it will build its first 300-millimeter, high-volume production manufacturing facility in Chandler, Arizona. Intel will be able to expand its facility under its existing air emissions cap for the Chandler facility that was established under the XL project in 1996.

Weyerhaeuser achieved an estimated savings of $176,000 in reporting costs during the first year of operation as a result of the successful revision and reissue of the facility's air quality and wastewater discharge permits. The company is now saving $200,000 a year by recovering lime muds and reusing this solid waste in lieu of purchasing new lime for use in the mill's production. (It did incur a one-time cost of $150,000 in 1998 on related sampling collection and analysis.) Weyerhaeuser foresees avoiding $10 million in future capital spending, while it expects to spend $10 million on new water equipment; it will subsequently save $20 million that would otherwise have been spent on air pollution equipment.

Benefits for the Community

Project XL creates an opportunity to make participation more meaningful for local citizens and community organizations by, for instance, allowing firms to redesign reporting mechanisms to enhance community understanding and trust, or by promoting a new, more substantive kind of public involvement. Table 3 shows the benefits community stakeholders have reported.

Project XL is providing communities with opportunities to identify the approaches that work most effectively for them and to build on or establish constructive relationships with facilities that impact the local environment and quality of life. At the same time, EPA is committed to offering communities an increasing number of tools and more information, to build local capacity for tackling environmental problems, and to provide greater public access to important environmental management choices and decisions.

Table 3: Benefits for Community Stakeholders

Greater community input into local development and economic planning through issues such as site reuse and "smart growth."
A cleaner local environment.
Opportunity to forge real and informed trust with the project sponsor.
Opportunity for input into companies' environmental information on the Internet, directly from the facility or from the local library.
Access to reports that are in an easy-to-read format.
Regularly scheduled forums for getting updates on environmental progress and company performance.
Better understanding of a local facility's operations, and of issues facing an industry as a whole.
Community projects such as computer donations and improved landscaping of facility setbacks.

Project Status and Results

As of November 2000 there are 48 projects that have signed Final Project Agreements (FPAs) and are being implemented. These projects are described in the following Project Status and Results chapter of this report. In-depth information is presented in this report for 16 of these projects:

Andersen Corporation

Atlantic Steel Redevelopment

Crompton Corporation Sistersville Facility (formerly Witco)

Department of Defense Elmendorf Air Force Base

Department of Defense Vandenberg Air Force Base

ExxonMobil Corporation Sharon Steel Superfund Site

HADCO Corporation

Intel Corporation

Jack M. Berry Corporation (project is closed)

Lucent Technologies

Massachusetts Department of Environmental Protection

Merck Corporation Stonewall Facility

Molex Incorporated

New England Universities Laboratories

New York State Department of Environmental Conservation

Weyerhaeuser Company Flint River Operation

In order to fully describe these 16 projects, the following components are addressed in the project descriptions:

Background: Who is the project sponsor? What is the main experiment of the pilot project? What is the flexibility that is given to the project sponsor by the regulatory agencies (Federal, state, tribal, and local)? In addition to the main experiment, what other innovations are key components of the pilot project? What is the expected superior environment performance of this project?

Progress in Meeting Commitments: Overall, has the project sponsor met the environmental and process commitments as specified in the FPA?

Benefits for the Environment: Based on the project's progress, what has been the actual benefit or improvement to the local environment?

Benefits for Stakeholders: What benefits have the local community and general public received through project implementation?

Benefits for the Project Sponsor: What cost savings or other benefits have the project sponsor gained?

Spin-off Benefits (where applicable)*:* What related efforts or activities have been spawned by the pilot project?

Key Issues Needing Resolution: What are the barriers to smooth implementation? What are the ongoing concerns about the overall project approach?

Lessons Learned: What are the important process issues that might affect how EPA develops, negotiates, and implements future XL pilot projects?

Information Resources: What are the sources of information for this project's summary?

Please refer to Appendix A, Information Sources and Methodology, which details information sources and methodology used to collect data for the 16 projects that have been in implementation for over a year. The information presented for these 16 projects is considered current at the time of data collection and the writing of this report in September 2000.

For the 32 projects that have been in implementation for approximately one year or less, a synopsis of each project is presented. Information included for these projects includes the concept or idea being tested, the regulatory flexibility being offered, and the expected environmental, economic, and efficiency benefits. These projects will have more detailed results in the next annual report. These 32 projects are:

Autoliv Automotive Safety Devices

Buncombe County

City of Albuquerque

City of Columbus

City of Denton

City of Fort Worth

Clermont County

Department of Defense Naval Station Mayport

Department of Defense Puget Sound Naval Shipyard

Eastman Kodak Company

Georgia Pacific Corporation

Imation Corporation

International Business Machines Corporation, East Fishkill Facility

International Business Machines Corporation, Semiconductor Manufacturing Facility

International Paper Effluent Improvements Project

International Paper Predictive Emissions Monitoring Project

Labs21

Lead Safe Boston

Louisville and Jefferson County Metropolitan Sewer Districts

Metropolitan Water Reclamation District of Greater Chicago

Narragansett Bay Commission

National Aeronautics and Space Administration White Sands Test Facility

Ortho-McNeil Pharmaceutical, Inc.

Pennsylvania Department of Environmental Protection

PPG Industries, Inc.

Progressive Auto Insurance Company

Steele County

United Egg Producers

United States Postal Service

USFilter Recovery Services, Inc.

Waste Management, Inc. Virginia Landfills

Yolo County Bioreactor

This volume also provides background summary information on the following five projects that still are under development as of November 2000:

Anne Arundel County Bioreactor

Chicago Regional Air Quality and Economic Development Strategy

Crompton Corporation TBT Project

New Jersey Department of Environmental Protection

Port of Houston Authority

The background information presented on the projects under development is considered current at the time of the writing of this report in September 2000. Please refer to the Project XL homepage

(www.epa.gov/projectxl) to view up-to-date information and contact information for individual projects.

In order to better understand the detailed information contained in this volume, please refer to the index on page iv, which sorts the projects by sector, location, and relevant statute(s).