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Project XL Progress Report

Atlantic Steel Redevelopment



On March 16, 1995, the Clinton Administration announced a portfolio of reinvention initiatives to be implemented by the U.S. Environmental Protection Agency (EPA) as a part of its efforts to achieve greater public health and environmental protection at a more reasonable cost. Through Project XL, which stands for eXcellence and Leadership, EPA enters into specific project agreements with public or private sector sponsors to test regulatory, policy, and procedural alternatives that will produce data and experiences to help the Agency make improvements in the current system of environmental protection. The goal of Project XL is to implement 50 projects that will test ways of producing superior environmental performance with improved economic efficiencies, while increasing public participation through active stakeholder processes. As of October 1999, 15 XL projects are in the implementation phase and 35 XL projects are under development. EPA Project XL Progress Reports provide overviews of the status of XL projects that are implementing Final Project Agreements (FPAs). The progress reports are available on the Internet via EPA's Project XL web site at <http://www.epa.gov/Project XL>. Or, hard copies may be obtained by contacting the Office of Reinvention's Project XL general information number at 202-260-7434. Additional information on Project XL is available on the web site or by contacting the general information number.

Background

Jacoby Development, Inc. is a privately held real estate company started in 1979, which specializes in property development, financing, brokerage, leasing, and management. Jacoby has proposed the redevelopment of a 138-acre former steel mill site that was owned and operated by Atlantic Steel for more than a century. The proposed development is located near Atlanta's central business district and will provide a mix of residential, office, retail, and entertainment uses with proximity to Atlanta's central business district. The redevelopment site is located on the western boundary of the I-75/85, 14-lane interstate highway. There is poor access to the areas east of the highway, where most of the existing neighborhoods in the vicinity are. An essential component of



Atlantic Steel
XL Project
Atlanta, Georgia

Major Milestones

September 11, 1998 Atlantic Steel Redevelopment XL Proposal Submitted	September 7, 1999 Final Project Agreement Signed	2000-2002 Construction of 17 th Street Bridge	October 2002 Completion of First Retail, Residential, Office, and Hotel Structures	Fall 2012 Atlantic Steel Site Redevelopment Complete
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the redevelopment project is to construct a multimodal bridge (cars, pedestrians, bicycles, and transit linkage) that would cross I-75/85 at 17th Street, linking the site to the nearby neighborhoods and providing access to the Metropolitan Atlanta Rapid Transit Authority (MARTA) mass transit station. The bridge will include (1) two 11-foot wide lanes in each direction for general use traffic; (2) two 16-foot wide dedicated bicycle and transit lanes; and (3) a 24-foot wide pedestrian park and thoroughfare.

Jacoby plans to construct a mixed-use development on the Atlantic Steel site in a pedestrian-friendly environment with linkage to rapid rail mass transit. The primary commercial space will be located on the east side of the site, adjacent to the highway and close to existing large-scale development. The middle portion of the site will be a residential village within walking distance to transit links, shopping, entertainment, office, recreation, and open park spaces. The western portion of the site is reserved for a technology-based office and research village affiliated with the Georgia Institute of Technology (Georgia Tech). “Smart growth” design principles will promote pedestrian-friendly and transit-oriented access between centers of residential, entertainment, cultural, employment, and recreational uses, thus reducing vehicular traffic and encouraging a neighborhood environment.

Jacoby is working in partnership with local citizens, the City of Atlanta, the State of Georgia, and EPA. The Atlantic Steel project is expected to provide the following benefits.

- Accelerate the cleanup of a brownfield site.
- Redevelop a site with existing infrastructure and transportation.
- Create growth in midtown Atlanta instead of the outlying metropolitan area, resulting in fewer vehicle miles traveled (VMT) in the metropolitan.
- Link a new development to mass transit, which would encourage greater use of public transportation and less reliance on cars.
- Incorporate “smart growth” design principles that would promote pedestrian-friendly, transit-oriented access instead of relying exclusively on cars.
- Establish a Transportation Management Association (TMA) that will monitor the number and types of vehicular trips.

The Experiment

The Atlantic Steel project tests whether smart growth strategies can be applied to brownfield and transportation projects, such that air quality and other environmental performance can be improved, as part of an overall community revitalization plan.

The Flexibility

Jacoby is seeking to classify the entire redevelopment project, including the 17th Street bridge, as a Transportation Control Measure (TCM). The City of Atlanta currently is out of compliance with Federal transportation requirements because it has failed to demonstrate that its transportation activities are conforming to Clean Air Act (CAA) requirements. The CAA generally prohibits construction of new transportation projects that use Federal funds or require Federal approval in noncompliance areas. However, projects that are expected to provide an air quality benefit, called TCM, can proceed even during a conformity lapse if they are part of a Federally approved State Implementation Plan (SIP). EPA believes that the planned redevelopment of the

Atlantic Steel site, including the multimodal bridge, will lead to less air pollution than an equivalent amount of development at other likely sites in the region.

Under the Atlantic Steel project, EPA will consider the entire redevelopment project to be a nontraditional TCM. Projects that are approved as TCMs in a SIP are eligible for Federal funding and may gain Federal approval even in noncompliance areas. For the Atlantic Steel site to qualify as a TCM, EPA is offering flexibility in two areas. First, EPA views the site's location, proposed transit linkage, and other transportation characteristics together as a TCM. While the CAA lists several types of projects that can be TCMs, the statute does not limit TCMs to these measures. Specific types of TCMs listed in the CAA include projects that improve public transit, employer-based transportation management plans, projects that limit certain areas in metropolitan regions to nonmotorized and pedestrian use, and programs that provide both travel and storage facilities for bicycles. The plan for the Atlantic Steel site incorporates many elements that could be TCMs by themselves; for example, improved public transit, bicycle and pedestrian paths, and the requirement that employers at the site join or form a transportation management association. EPA believes that the combination of these elements will have a positive effect on reducing emissions from single occupancy vehicles by encouraging the use of alternative modes of transportation.

As a second aspect of this project's flexibility, it is testing an innovative approach to measuring the air quality benefits of the Atlantic Steel redevelopment. To analyze the regional transportation and air emission impacts of the Atlantic Steel project, EPA used modeling analysis to compare the site redevelopment's potential air quality impact to three other likely locations for similar-scale development in the Atlanta region. Using this type of comparison to support a TCM consideration is unique to this particular XL project. The site's SIP-TCM designation is possible because the EPA analysis demonstrated that the Atlantic Steel redevelopment (with its mixed-use and transit components) would generate a relative air quality benefit when compared to a similar-scope development located in a suburban, greenfield location. This analysis of the Atlantic Steel site showed that by absorbing a larger portion of Atlanta's growth, the Atlantic Steel site would create fewer VMTs and nitrogen oxide (NO_x) emissions than developing any of the alternative greenfield sites. EPA's evaluation of the Atlantic Steel site's impacts was driven by two fundamental factors: (1) the Atlanta region will continue to grow over the next 20 years; and (2) without redeveloping the Atlantic Steel site, more of this growth would occur in outlying areas.

Promoting Innovation and System Change

Project XL provides EPA opportunities to test and implement approaches that protect the environment and advance collaboration with stakeholders. EPA is continually identifying specific ways in which XL projects are helping to promote innovation and system change. The innovation and system change emerging from the Atlantic Steel Redevelopment XL project is described below.

Regulatory Flexibility During Conformity Lapse. In addition to returning a contaminated site back to productive use, the Atlantic Steel project will examine how considering the entire redevelopment project a TCM can leverage environmental benefits in air quality. While the redevelopment plan incorporates many elements that could qualify as TCMs individually, EPA believes that the unique attributes and interconnected design of this specific project will result in long-term air quality benefits for the Atlanta region. EPA will use regulatory flexibility under Project XL to approve the redevelopment and its associated transportation projects as a TCM. As more cities struggle with urban development, transportation, and air quality problems similar to Atlanta's, many aspects of the project will have the potential to be transferred to those locations.

Project Commitment Summary

This table and the environmental performance section that follows summarize progress in meeting commitments described in the FPA for the Atlantic Steel Redevelopment XL project. EPA has provided the initial regulatory flexibility for the Atlantic Steel project to proceed under the CAA. However, a National Environmental Policy Act of 1969 (NEPA) analysis and the State Implementation Plan (SIP) approval must be completed before the project construction can proceed. Under the CAA, states are required to develop a SIP that sets limits on the maximum levels of pollutants in outdoor air. Each state is required to demonstrate how those standards will be achieved, maintained, and enforced. The NEPA analysis will promote efforts to minimize or eliminate damage to the environment and protect human health and welfare.

Commitment	Status
Site Design, Approval, and Construction	
Jacoby prepared a detailed site plan incorporating recommendations by a town planning firm.	Completed February 2, 1998.
The Mayor of Atlanta approved zoning conditions for the Atlantic Steel site.	Approved April 13, 1998.
The Atlanta Region Commission reviewed and approved the TCM.	Approved in June 1999.
Georgia Environmental Protection Division (EPD) will incorporate the TCM in its State Implementation Plan (SIP-TCM).	Expected to be submitted to EPA in early 2000.
EPA will provide a 30-day public comment period and review/approve the Georgia SIP-TCM.	Expected approval 2 to 3 months after receipt from Georgia EPD.
EPA will voluntarily conduct a NEPA analysis that will determine the environmental impacts of the bridge in order to accelerate the bridge approval process.	Initiated in July 1999, and expected to be completed in April, 2000.
Jacoby will finalize a concept report and submit the report to the Georgia Department of Transportation (DOT).	Expected to be completed in early 2000.
Georgia-DOT will review the concept report for the bridge and prepare an Interchange Modification Report.	To be conducted following submittal of the bridge concept report.
The Federal Highway Administration (FHWA) will review/approve the design for the bridge and interchanges.	To be conducted following submittal of the Interchange Modification Report.
Georgia DOT will construct the multimodal 17 th Street Bridge.	Expected to begin in June, 2000, and require 18 months.
Jacoby will demolish the old Atlantic Steel mill structures.	Demolition began in December, 1999.

Commitment	Status
Site Design, Approval, and Construction (Continued)	
Jacoby will improve the existing subsurface infrastructure (water, utilities, sewers, etc.).	To be accomplished concurrently with site remediation.
Jacoby will complete Phase 1 construction of the redevelopment project.	Vertical construction will begin concurrently with infrastructure development and is expected to be completed in October, 2002.
Jacoby will complete Phase 2 construction of the redevelopment project.	Expected to be completed in the fall of 2006.
Jacoby will complete the last phase (Phase 3) of construction of the redevelopment project.	Expected to be completed in the fall of 2012.
Brownfields Remediation	
Georgia EPD reviewed and approved Jacoby's site remediation plan.	Approved December 1999.
Jacoby will remediate the most contaminated soils ("hot spots") and an existing small RCRA facility using excavation and disposal at offsite landfills. The slag that remains onsite will be covered by at least two feet of clean fill material.	Remediation began in January 2000 and is expected to take 4 to 18 months.
Jacoby will construct a long-term groundwater collection and monitoring system. Groundwater will be diverted to onsite pretreatment facilities (as necessary) prior to discharge to a sanitary sewer.	Remediation began in January 2000 and is expected to take 4 to 18 months.
Through a conservation easement, the City of Atlanta will ensure that both the barriers to contaminated slag and the groundwater collection and monitoring system remain intact. The site owner will be responsible for any required mitigation measures.	Georgia EPD has approved the conservation easement. The City of Atlanta will monitor the effectiveness of the remedy following the completion of remediation construction activities.
Transportation Enhancements	
Jacoby will provide the right-of-way to MARTA, or another acceptable entity, to allow the construction of a linkage connecting the Atlantic Steel site to the MARTA Arts Center station.	To be provided after bridge approval is complete.
Jacoby will provide an interim shuttle service to the MARTA Arts Center station. Jacoby will continue to provide this service for 10 years or until MARTA or another entity assumes responsibility for the mass transit linkage, whichever occurs first.	Shuttle linkage to MARTA will begin after construction of the 17 th Street bridge.

Commitment	Status
Transportation Enhancements (Continued)	
<p>Jacoby will provide funding, or a funding mechanism, for the establishment of a Transportation Management Association (TMA). The TMA will undertake specific mitigation measures if specified thresholds for air quality performance are not met.</p>	<p>Tracking of VMT performance measures will begin two years after the opening of the 17th Street bridge to single occupancy vehicles.</p>
Pollution Prevention	
<p>Jacoby will work with builders and users of the property to encourage their participation in the Green Building Council's "Leadership in Energy and Environmental Design" (LEED™) program and attain the requirements for the LEED Building Bronze™ designation.</p>	<p>To be initiated during design of vertical construction.</p>
<p>Jacoby will work with Atlantic Steel to implement aggressive recycling of materials in old mill structures prior to demolition of existing structures.</p>	<p>Deconstruction began in July 1999.</p>
<p>To reduce the use of water, Jacoby will promote the use of water flow restrictors, innovative uses of "greywater," and use of drought-tolerant indigenous plant species.</p>	<p>To be included in the design of vertical construction.</p>
<p>Jacoby will explore the use of the Hemphill Water Plant backwash water to reduce irrigation needs at the site.</p>	<p>To be initiated during vertical construction.</p>
Erosion and Stormwater Control	
<p>Jacoby will install onsite, separate stormwater and sanitary sewer systems, using best management practices, to reduce future impacts on water quality.</p>	<p>To be implemented during infrastructure improvement.</p>
<p>An onsite erosion and sediment control facility will be built during and after construction to control all surface water runoff from the site.</p>	<p>To be initiated prior to infrastructure improvement.</p>
Data Collection	
<p>Jacoby will collect data on (1) average daily vehicle miles traveled; (2) average daily miles traveled per employee working at the site; and (3) the percentage of all trips by mode made to and from the site by residents and employees. The data will be submitted annually to the City of Atlanta.</p>	<p>To begin the year following the opening of the 17th Street bridge to single occupancy vehicles and continuing as long as the TCM is contained in the SIP.</p>
<p>The TMA will conduct an annual commute mode survey and monitor transportation-related issues at the redevelopment.</p>	<p>To be conducted in conjunction with Jacoby's submittal of data to the City of Atlanta.</p>

Commitment	Status
Data Collection (Continued)	
If the project falls below the performance targets set in the SIP, then the City of Atlanta and the TMA will implement transportation programs onsite that encourage trip reductions.	To be implemented any time after the project is two-thirds complete, or six years after the 17 th Street bridge opens, whichever comes first.
Jacoby Reporting Requirements	
Jacoby will prepare an annual summary report and submit the report to EPA, Georgia EPD, and the City of Atlanta, and will post the report on its Internet web site. Upon request, Jacoby will provide a copy of the annual report to stakeholders.	First report due on February 15, 2000, and each year after that during the life of the agreement.
Jacoby will prepare a semiannual update on the redevelopment and remediation of the site and submit the update to EPA, Georgia EPD, and Atlanta, and will post the report on its Internet web site. Upon request, Jacoby will provide a copy of the annual report to stakeholders.	First semiannual update due August 30, 2000 and continuing for two years or until the 17 th bridge opens, whichever comes first.
Stakeholder Involvement	
Jacoby conducted a full public notice and review process during the rezoning of the property from an industrial to a mixed-use classification.	Rezoning process began in May, 1997. Multiple public meetings, discussion groups, and individual contacts were involved. The first XL public meeting was held in September, 1998.
Jacoby will conduct an annual public meeting near the site to present its annual report and obtain input from stakeholders.	Annually beginning in February, 2000.
Jacoby will hold a Periodic Performance Review Conference, concurrent with the stakeholders meeting, to assess their progress in implementing the project.	Annually beginning in February, 2000. A summary will be prepared within 30 days after the conference.

Environmental Performance

This section summarizes progress in meeting the environmental performance described in the FPA for the Atlantic Steel Redevelopment XL project.

Remediation of a Brownfield Site: Remediation of the site to prevent exposures to contamination caused by a century of steel mill operations is required for the redevelopment project to proceed. The remediation plans for the site include the excavation of both contaminated soil "hot spots" and a small RCRA facility (20-foot by 20-foot cap), and disposal of the soils at an appropriate offsite facility. At least two feet of clean fill will be placed over all slag that remains onsite. In addition, a groundwater collection and treatment system will be constructed and maintained to prevent migration of contaminants offsite through the groundwater. The existing

infrastructure at the site will be improved concurrently with the remediation to avoid future disturbance of the clean fill barrier.

Progress: Georgia EPD approved Jacoby's remediation work plan in December, 1999. Remediation and infrastructure improvements began in late January, 2000. The remediation is expected to require up to 18 months to complete.

Reduction of Future Air Emissions: An EPA study, *Transportation and Environmental Impacts of Infill and Greenfield Development*, found that VMT could be reduced by as much as 61% by developing at infill sites compared to outlying greenfields. Based on this and other analyses, EPA evaluated the potential performance of the Atlantic Steel site relative to three other likely locations and evaluated the potential for carbon monoxide (CO) emission hot spots associated with development at the Atlantic Steel site. To analyze the transportation and air emissions impact of the project, EPA used the Atlanta regional transportation and MOBILE5a emissions models to compare development at the Atlantic Steel site to similar development at outlying greenfields. Analysis of regional transportation and air emissions impacts show that absorbing a larger portion of Atlanta's future growth at the Atlantic Steel site would result in up to 34% fewer VMT and up to 45% fewer NO_x emissions than if the growth were to occur at likely alternative sites. Analysis of potential CO emissions indicated that CO hot spots would not occur. Jacoby, EPA, Georgia EPD, and Atlanta have agreed on the following specific criteria to determine the success of this project in reducing VMT.

- Following two-thirds build-out, or six years after the 17th Street bridge opens to single-occupancy vehicle traffic (whichever comes first) the average daily VMT per resident of the development will be less than 27 miles.
- Following two-thirds build-out, or six years after the 17th Street bridge opens to single-occupancy vehicle traffic (whichever comes first) the average daily VMT per employee of the development will be less than 11 miles.
- Following two-thirds build-out, or six years after the 17th Street bridge opens to single-occupancy vehicle traffic (whichever comes first) the percentage of trips made to, from, and on the site using modes of travel other than single-occupancy vehicles will be greater than 25%.

Progress: The Atlantic Steel redevelopment project is in its very early stages. Data on air emissions and VMT are not yet being collected.

Implementation of Erosion and Stormwater Control: Stormwater runoff from the Atlantic Steel site currently flows into a combined sanitary and stormwater sewer. Jacoby has committed to voluntarily installing separate stormwater and sanitary systems to reduce or eliminate the flow of pollutants from stormwater runoff to receiving waters. The systems will be adequately sized to handle sanitary and stormwater discharges from the proposed project and existing flows in the catchment basin now serviced by the combined sewer. Stormwater will be diverted to one or more impoundments to be constructed on the property and then reused either as greywater or discharged to the separate stormwater sewer to be constructed. Structural best management practices (BMPs) and stormwater controls will be employed to ensure that surface runoff leaving the site will receive some level of treatment prior to reaching the Chattahoochee River.

Progress: Construction of infrastructure improvements will be conducted in conjunction with site remediation, which began in late January, 2000.

Participation in the Green Building Council “Leadership in Energy and Environmental Design” (LEED™) Program:

Energy Conservation. Jacoby will implement strategies to prevent and minimize pollution by selecting construction materials and sustainable building technologies that minimize energy use. Buildings will be sited to maximize solar gain in the winter and minimize solar gain in the summer, thus reducing energy consumption from heating and cooling. Jacoby will voluntarily commit to working with EPA, the Southface Energy Institute, Georgia Tech, and other stakeholders to identify and encourage future tenants and developers to participate in energy conservation programs.

Solid Waste Management. Jacoby will encourage Atlantic Steel to recycle and reuse the solid waste generated during the demolition of the existing structures on the property. Jacoby will work with builders during redevelopment to determine which solid waste management measures to apply to meet LEED™ Bronze Building requirements.

Water Use Reduction. Jacoby will comply with state laws and building codes that require all newly constructed properties to reduce water use. Water flow restrictors will be used in office buildings and homes, and innovative reuse of “greywater” will be encouraged. Measures can be applied to meet LEED™ Bronze Building requirements and to reduce overall pollutant loadings to receiving waters, urban streams, and the wastewater treatment plant.

Progress: Deconstructing and recycling of the old Atlantic Steel mill structures began in July, 1999. Vertical construction has not yet been initiated and, therefore, energy and environmental conservation building designs have yet to be implemented.

Stakeholder Participation

During the process of rezoning, there were multiple public meetings, discussion groups, individual contacts, and a public notice and review process. The stakeholders involved in the process included the City of Atlanta Planning Department, Georgia DOT, the Atlanta Regional Commission, MARTA, the Georgia Conservancy, nine neighborhood organizations, the Midtown Alliance, and Georgia Tech. Discussions with these stakeholders led to collaboration on the concept, design, and conditions that were included in the City of Atlanta rezoning document and ultimately to many of the measures agreed to by Jacoby in the FPA. The Stakeholder Participation Plan (SPP) describes the methods by which additional input can be solicited and received throughout the redevelopment process.

Six-Month Outlook

Expected activities over the next six months include the following.

- EPA will complete its NEPA analysis in April, 2000.
- EPA will process the Georgia SIP and TCM for the site.
- Georgia DOT will submit an approved concept report to FHWA.
- Bridge construction will begin.
- Remediation and infrastructure improvement will continue.
- Vertical construction of Phase 1 structures will begin.

Project Contacts

- Charles R. Brown, Jacoby Development Corporation, (770) 622-7797.
- Brian Leary, Jacoby Development Corporation, (770) 622-7797.
- Michelle Glenn, EPA Region 4, (404) 562-8674.
- Ted Cochin, EPA Headquarters, (202) 260-0880.

Information Sources

The information sources used to develop this progress report were (1) the September 7, 1999, Atlantic Steel FPA and (2) individual contacts with direct stakeholders.

Glossary

Baseline: The measure by which future environmental performance can be compared.

Best Management Practice: Methods that have been determined to be the most effective, practical means of preventing or reducing pollution from nonpoint sources of pollution.

Brownfields: Abandoned, idled or under-used industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived environmental contamination.

Carbon Monoxide (CO): A colorless, odorless, poisonous gas produced by incomplete fossil fuel combustion.

Clean Air Act (CAA): The Clean Air Act is the comprehensive Federal law that regulates air emissions from area, stationary, and mobile sources. This law authorizes EPA to establish National Ambient Air Quality Standards (NAAQS) to protect public health and the environment.

Deconstruction: The removal of recyclable materials from building structures prior to demolition.

Disposal: The discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid or hazardous waste on or in the land or water.

Effluent: Treated or untreated wastewater that flows out of a treatment plant, sewer, or industrial outfall. Generally refers to wastes discharged into surface waters.

Erosion: The wearing away of land surface by wind or water, intensified by land-clearing practices related to farming, residential or industrial development, road building, or logging.

Final Project Agreement (FPA): The FPA outlines the details of the XL project and each party's commitments. The project's sponsors, EPA, state agencies, Tribal governments, other regulators, and direct participant stakeholders negotiate the FPA.

Greenfields: Areas of land uncontaminated by industrialization.

Greywater: Nonpotable wastewater composed of wash water from kitchen, bathroom, and laundry uses.

Irrigation: Applying water or wastewater to land areas to supply the water and nutrient needs of plants.

Leadership in Energy and Environmental Design (LEED™): An innovative pollution prevention program that takes a comprehensive view of resource conservation and management.

LEED™ Building Bronze: An award certification program where applicants must satisfy certain prerequisites set by the program and can earn a certain number of credits.

Media: Specific environments—air, water, soil—which are the subject of regulatory concern and activities.

Multi-media: Several environmental media, such as air, water, and land.

MOBILE5a Model: A model used by EPA in regulatory submittals that estimates regional mobile source air emissions by taking into account projected VMT, speed, and the types of vehicles within the region.

Nitrogen Oxide (NO_x): An air pollutant that is the result of photochemical reactions of nitric oxide in ambient air. Typically, it is a product of combustion from transportation and stationary sources. It is a major contributor to the formation of tropospheric ozone, photochemical smog, and acid deposition.

National Ambient Air Quality Standards (NAAQS): Regulations promulgated by EPA under the CAA for six criteria pollutants—SO₂, particulate matter, NO_x, CO, ozone, and lead—in order to protect the public from the impacts of these atmospheric emissions.

National Environmental Policy Act of 1969 (NEPA): The purposes of this Act are to declare a national policy to encourage productive and enjoyable harmony between man and his environment; and to promote efforts that will prevent or eliminate damage to the environment and biosphere, stimulate the health and welfare of man, enrich the understanding of the ecological systems and natural resources important to the Nation, and establish a Council on Environmental Quality.

Particulate Matter: Fine liquid or solid particles, such as dust, smoke, mist, fumes, or smog, found in air or emissions.

Pollution Prevention: Identifying areas, processes, and activities that create excessive waste products in order to reduce or prevent their generation through altering or eliminating a process, pursuant to the Pollution Prevention Act of 1990.

Recycling: The separation and collection of wastes, their subsequent transformation or remanufacture into usable or marketable products or materials, and the purchase of products made from recyclable materials.

Remediation: Cleanup or other methods used to mitigate a toxic spill or hazardous materials at a contaminated site.

Resource Conservation and Recovery Act (RCRA): RCRA gives EPA the authority to control hazardous waste from “cradle-to-grave.” This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of nonhazardous wastes. RCRA enables EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. RCRA focuses only on active and future facilities and does not address abandoned sites.

Sediments: Soil, sand, and minerals washed from land into water, usually after rain. They pile up in reservoirs, rivers and harbors, destroy fish and wildlife habitat, and cloud the water so that sunlight cannot reach aquatic plants.

Slag: The refuse from melting of metals or reduction of ores.

Smart Growth: A program that uses state resources to revitalize older developed areas, preserve some of their valuable resources and open space, and discourage the continuation of sprawling development into rural areas.

State Implementation Plan (SIP): Under the CAA, states are required to develop a plan that sets limits on the maximum levels of pollutants in outdoor air. Each state is responsible for developing a plan to demonstrate how those standards will be achieved, maintained, and enforced.

Solid Waste: Nonliquid, nonsoluble materials ranging from municipal garbage to industrial wastes that contain complex and sometimes hazardous substances. Solid wastes also include sewage sludge, agricultural refuse, demolition wastes, and mining residues. Technically, solid waste also refers to liquids and gases in containers.

Solid Waste Management: Supervised handling of waste materials from their source through recovery processes to disposal.

Title V of the Clean Air Act: Establishes a federal operating permit program that applies to any major stationary facility or source of air pollution. The purpose of the operating permits program is to ensure compliance with all applicable requirements of the CAA. Under the program, permits are issued by states or, when a state fails to carry out the CAA satisfactorily, by EPA. The permit includes information on which pollutants are being released, how much may be released, and what kinds of steps the source's owner or operator is taking to reduce pollution, including plans to monitor the pollution.

Transportation Control Measures (TCMs): Steps taken by a locality to reduce vehicular emissions and improve air quality by reducing or changing the flow of traffic, including bus and high-occupancy vehicle (HOV) lanes, carpooling, other forms of ride sharing, public transit, and bicycle lanes.

Vehicle Miles Traveled (VMTs): A measure of the total amount of miles traveled by vehicles within a region.

Volatile Organic Compound (VOC): Any organic compound that easily evaporates and participates in atmospheric photochemical reactions, except those designated by EPA as having negligible photochemical reactivity.

Wastewater: The spent or used water from a home, community, farm, or industry that contains dissolved or suspended matter.