

Office of Solid Waste Strategic Planning Document  
2003 - 2008

9/23/03

## ***Introduction***

### ***What is this plan?***

This is the Office of Solid Waste's (OSW) Strategic Planning Document. It is an internal OSW document that provides a framework for the direction OSW will be taking over the next few years. This plan does not present any requirements or assumed workload for any states, regions or other offices. It is strictly an OSW document and is meant to focus on OSW's role and activities. It was developed through an extensive series of interviews with OSW senior management; brainstorming sessions with a number of OSW staff; interviews with the RCRA Senior Policy Advisors, a number of ASTSWMO board members, and several tribal representatives; and finally, discussion meetings with OSW staff.

### ***How does this planning document fit with the various OSW vision and planning documents?***

Various OSW vision and planning documents were used in developing this document. The main documents used in the development of this plan are:

- RCRA 2020 Vision (Beyond RCRA: Prospects for Waste and Materials Management In the Year 2020) - The RCRA Vision Paper was developed to provoke discussion and facilitate a public dialogue on possible directions for the mid- to long-term future of the RCRA program. It identified three goals that could form the foundation of a new system for waste and material management in the year 2020: (1) reduce waste and increase the efficient and sustainable use of resources; (2) prevent exposures to humans and ecosystems from the use of hazardous chemicals; and (3) manage wastes and clean up chemical releases in a safe, environmentally sound manner.
- USEPA Strategic Plan - The Government Performance and Results Act of 1993 (GPRA) requires EPA to update previous Strategic Plans every 3 years. The Plan establishes the framework that EPA will use to plan our programs, set priorities, and allocate resources. Each revised plan takes into account our previous performances and lays out new and innovative tools and approaches to advance our progress in environmental protection.
- RCRA Program Strategy to Meet 2005 GPRA Goals - This document lays out OSW permitting and corrective action implementation activities.

The OSW Strategic Planning Document has taken the key concepts of the RCRA 2020 Vision (sustainability, materials management, life-cycle approach to managing risks from harmful chemicals, and coordinating and integrating RCRA with other risk management programs) to begin defining how we will make the transition towards these long-term goals. The plan is only a beginning of an ongoing effort to map our transition to a new phase of the program, and it integrates well with our 2005 and 2008 GPRA goals set out in the 2003 USEPA Strategic Plan. Permitting and corrective action

implementation activities are carried out by state environmental agencies and EPA regional offices. Therefore, we discuss these activities in general and concentrate on what OSW is doing to help support the efforts of these other groups. We refer the readers to the RCRA Program Strategy to Meet 2005 GPRA goals for more information in these areas.

***What is the layout of this planning document?***

This planning document starts out by providing an updated OSW Vision Statement and associated Guiding Principles. The document goes on to describe how far OSW has come and gives a broad overview of OSW's future. And then, the document begins to map the future of OSW by presenting the mission, challenge, and objectives of OSW's three main goals: (1) Conserving natural resources: contributing to a system where economic prosperity co-exists with a healthy environment; (2) Preventing future waste problems: sustaining the momentum for safe management; and (3) Cleaning up problems from past practices.

## *OSW's Vision*

*EPA's mission is to protect human health and safeguard the natural environment – the air, land, and water upon which life depends.*

Our vision, in the Office of Solid Waste, is that society's materials and waste management choices today will enhance our health and well being in the future.

We contribute to EPA's mission by encouraging sustainability and safe materials management, and by fostering waste reduction and responsible management practices that will conserve natural resources, prevent future problems, and clean up problems from past practices.

### *Guiding Principles*

To carry out our mission successfully, we share responsibility for integrating environmental protection efforts across society.

- We provide leadership in addressing complex national issues and facilitate discussions between diverse groups and decision-makers on those issues. We establish national goals, priorities, policies, and regulations that are based on clearly defined decision criteria, including human health risk and ecological risk, and that are developed through transparent decision-making.
- We mobilize voluntary efforts, within every sector of American society, that complement and stretch beyond our regulatory programs in a way that maintains environmental results.
- We sustain strong partnerships with EPA regions, states, tribes, and local governments to support their implementation of resource conservation and waste management programs and integrated environmental protection.
- We provide the public easy-to-access and understandable environmental data and encourage the participation of communities, especially disadvantaged communities, and all other stakeholders in decision-making that affects them.
- We serve all sectors of society by fairly resolving issues based on sound science and data, common sense, fairness, and economic practicality to provide benefits to society and the environment.
- We educate all sectors of society in our shared responsibilities to reduce and manage wastes safely, and we learn from others how to make our efforts most relevant and effective.

- We strive for a holistic approach to environmental protection that integrates our activities with air, water, pollution prevention, and enforcement programs to maximize environmental results and to achieve sustainability and safe materials management.
- We measure and report our effectiveness in achieving environmental results.
- We take pride in our work and strive for excellence. We are motivated by the knowledge that our work is critical to protecting human health and the environment.

## *How Far We Have Come*

Ensuring responsible waste management practices is a far reaching and challenging undertaking that engages EPA headquarters and regions, state agencies, tribes, and local governments, as well as, of course, everyone who generates waste. From the enactment of the Resource Conservation and Recovery Act (RCRA), we have largely focused on building the hazardous and municipal solid waste programs and fostering a strong societal commitment to recycling. We have:

- Built a comprehensive cradle-to-grave regulatory program for hazardous waste management that identifies hazardous wastes and sets standards for tracking, handling, storage, treatment, disposal, and cleanup.
- Authorized forty-eight states to implement their regulatory programs in place of all or substantial portions of the federal hazardous waste program. We set national program direction and provide assistance and support to state environmental agencies and EPA regional offices as they implement the full range of RCRA requirements for hazardous waste generators and treatment, storage, and disposal facilities. State agencies and EPA regional offices have issued permits or ensured that other approved controls are in place to prevent dangerous releases to air, soil, and water at 80 percent of approximately 2750 storage, treatment, and disposal facilities. They have also ensured (as of March 2003) that human exposures are under control at 1059 and migration of contaminated groundwater is controlled at more than 901 high priority facilities with hazardous waste releases.
- Set national baseline standards for municipal solid waste landfills that states have incorporated into their own municipal solid waste management program.
- Identified a list of priority pollutants that pose particular human health and environmental risks on which to focus hazardous waste reduction efforts for industries and regulatory agencies.
- Worked in successful partnerships with federal, state, and local regulatory agencies, consumers, and businesses to reduce the amount of commercial and municipal waste that we generate, promote recycling, and build markets for recycled-content products.
- Provided education and technical assistance on hazardous and solid waste to the general public; to all levels of government, including tribes, the military, and foreign governments; to businesses and industries; and to solid waste professionals.

## *Looking to the Future*

We will maintain and build on the effective hazardous and municipal waste programs that are in place. At the same time, we must increase our efforts contributing to resource conservation, sustainability, and safe materials management.

- Safe waste management and cleanup remain our critical foundation to protect human health and the environment. We can now rely on a largely complete regulatory structure for hazardous and municipal waste and proven implementation programs to ensure safe management. For OSW, sustaining safe management and cleanup means setting national program direction and priorities and supporting state regulatory agencies and EPA regional offices with resources, regulations and guidance, and technical assistance. We will assess potential human health and environmental threats from wastes and address other emerging issues and critical program improvements with the most effective tools at hand, whether they involve regulatory change or cooperative voluntary efforts.
- Striving for sustainability,<sup>1</sup> a holistic approach to environmental protection, and materials management are long term challenges. We need to view waste issues through new paradigms that meet our challenges and employ the innovative thinking of our times. We must look beyond the traditional definition of waste to determine how what we do fits into, and can benefit from, a life cycle approach to ensure that chemicals and materials are managed protectively, in whatever phase of use or discard. Finally, we must look beyond our own boundaries to integrate our activities with other environmental programs within the U.S. and within other countries to maximize environmental results and to achieve sustainability and safe materials management.
- Conserving natural resources is a top priority. We can broaden our efforts here because we have protective waste management systems to build on. Reducing the generation of industrial and municipal waste will conserve resources and reduce the environmental impacts of harvesting, processing, and producing more materials and products. Through the Resource Conservation Challenge, we are undertaking a broad spectrum of efforts to mobilize for waste minimization, pollution prevention, energy recovery, and recycling. Where necessary, we are refining the current regulatory system to facilitate these efforts.
- Our regulatory work is narrower in scope and we rely to a much greater extent on improving compliance with the regulations already in place. We have two remaining rulemakings to complete the hazardous waste regulatory structure and 1984 statutory mandates. However,

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<sup>1</sup> Sustainability refers to forms of progress that meet the needs of the present without compromising the ability of future generations to meet their needs.

our other regulatory activities are primarily targeted to simplify and add flexibility and to facilitate resource conservation and pollution prevention. At the same time, we are expanding our cooperative partnerships to facilitate compliance with waste management programs. We will also be working with states and public stakeholders to ensure safer management of non-hazardous industrial wastes.

- Our commitment to strong partnerships and effective coalitions will be a key to success. Thirteen years ago, many state regulators and EPA staff in the hazardous waste program were reluctant to characterize our relationship as a partnership.<sup>2</sup> Today, we have made great strides in working in true partnership with the states, while more remains to be done. We have also forged effective partnerships for municipal waste source reduction and recycling, and co-developed the Guide for Industrial Waste Management to address non-hazardous industrial wastes. Especially as we strengthen our focus on resource conservation and materials management for hazardous and nonhazardous industrial waste, we will build new partnerships and coalitions with government agencies, businesses, interest groups, and the public.
- OSW will continue to focus on improving the corrective action program. Our RCRA Reforms goals of faster, better cleanups will continue into the future as the program matures and facilities reach the later stages of cleanup. We have created new corrective action goals that relate to the activities that precede completion of final corrective action, remedy selection, and construction. Developing goals for the states to encourage facilities to achieve helps move the program toward success and provides increased protection to humans and ecological receptors that might be exposed to contaminants that have been released from corrective action facilities.

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<sup>2</sup>“The Nation’s Hazardous Waste Management Program at a Crossroads: The RCRA Implementation Study,” Office of Solid Waste and Emergency Response, July, 1990 (20S001).

## ***GOAL 1: Conserving Natural Resources: Contributing to a System Where Economic Prosperity Co-Exists with a Healthy Environment***

***Our Mission:*** Help society reduce the amount and toxicity of wastes that are generated and promote safe recycling and energy recovery. We will foster a materials management approach to assess risks and ensure that harmful chemicals do not enter the environment throughout the life cycle of material handling. We are committed to supporting a growing, prospering economy at the same time American businesses and households become more efficient and reduce material wastes.

***The Challenge:*** Resources that simply become waste are not available for future generations and extraction and harvesting of additional resources can have long term environmental impacts. Even as we implement protective waste management programs, toxic chemicals still can find their way into the environment throughout the life cycle of materials in extraction, production, transportation, use, and reuse. Persistent, bioaccumulative and toxic chemicals released into the environment can present long term risks to human health and the environment, even when released in small quantities.

Our challenge is to mobilize industries, state and local agencies, communities and the public through voluntary efforts and by harnessing regulatory incentives to reduce waste, reuse and recycle resources, and manage materials to minimize threats to human health and the environment.

Solutions may be found in business practice (e.g., “servicizing”), process, or product composition changes. OSW needs to continue to work closely with OPPTS and other offices’ innovative groups, such as Design for the Environment, Green Chemistry, or Green Engineering, to find solutions that minimize or prevent risks (e.g., using lead-free solders in electronics), even if they are legally permitted, and identify additional priorities.

The Resource Conservation Challenge (RCC) will be the main vehicle by which we work to meet this challenge. EPA launched the RCC to address these themes. The goals of the RCC are to foster source reduction and recycling to prevent the release of targeted chemicals into the environment; to increase source reduction and recycling of wastes to improve materials utilization in the U.S.; and to recover energy through improved materials utilization and waste conversion. It also challenges EPA’s partners and all Americans to take action on these fronts.

### ***Our Objectives:***

*Set national direction:* We have already set national goals that can only be accomplished through the voluntary cooperation and commitment of government agencies, businesses, and the public. For hazardous waste, we seek to achieve a 50 percent reduction of 30 priority chemicals in hazardous waste by the year 2005. For municipal wastes, we seek to maintain the waste generation rate for each person in the country at 4.5 pounds per day and to increase our recycling rate. As part of the RCC

and Government Performance and Results Act (GPRA) processes, we are working with our stakeholders to set more specific goals and measures for resource conservation and recycling.

, *Stimulate product stewardship and recycling capacity:* As a key element of the RCC, we are working with private businesses and public entities to create “product stewardship” arrangements that engage those involved in a product’s life cycle – manufacturers, retailers, users, and disposers – to share responsibility for reducing the environmental impacts of products. We promote development of recycling infrastructures to make it easier for businesses and consumers to acquire and use recycled and recyclable materials. We will also facilitate development of new and better recycling technologies; and identify and promote protective uses for recyclable materials and residuals/wastes.

, *Foster the transition to materials management:* Safe materials management involves assessing and reducing risks from chemicals and other materials as they are extracted, transported, used in product manufacture, used and reused as products, and finally when they are discarded. As part of the RCC, we will promote the use of new tools such as life cycle analyses and full cost accounting. We will work with other EPA programs, such as Design for the Environment, to focus more attention upstream on the use of materials and design of products and services in a more sustainable way.

, *Form partnerships to help businesses operate more efficiently and to recognize their accomplishments :* Often businesses can make a better product at lower cost while taking steps to prevent pollution. We offer hands-on assistance through various means and promote the use of new tools, such as environmental management systems (EMSs), chemical management services, and lean manufacturing.

, *Ensure RCRA controls promote recycling:* We are assessing and, when appropriate, revising hazardous waste regulations governing waste identification and recycling to spur increased reuse and recycling of hazardous waste. When we have completed the regulatory revisions, we plan to implement a program to see how well the reforms actually promote recycling and to ensure that the increased recycling is protective of human health and the environment.

, *Promote safe energy recovery from waste:* We are evaluating and capitalizing on promising technologies such as gasification of municipal and industrial wastes to produce synthetic natural gas; use of certain hazardous wastes comparable to fossil fuels; and using municipal solid waste or methane gas generated from municipal land fills as energy sources.

, *Engage consumers and under-served communities to be part of the solution:* We are promoting reduction of waste volumes by encouraging each person to help change our society's throw-away approach to household and consumer waste and by demonstrating that pollution prevention saves money and conserves energy and natural resources.

## ***GOAL 2: Preventing Future Waste Problems: Sustaining the Momentum for Safe Management***

***Our Mission:*** Sustain effective state programs for hazardous, municipal, and industrial waste management and EPA regional implementation of the RCRA program. We will enhance our efforts with our state, tribal, and local co-regulators, industries, environmental groups and the public to ensure protective management tailored to the full spectrum of wastes that are generated in the United States. These will include hazardous and non-hazardous industrial wastes, municipal wastes, and extractive wastes from mining, mineral processing, and oil and gas production.

***The Challenge:*** There is a large universe of waste generators and treatment, storage, and disposal facilities subject to federal, state, and tribal hazardous and solid waste requirements. We want to ensure that we identify and deal with unaddressed significant risks from current and new wastes and waste management practices; all wastes are managed protectively without unnecessary costs being imposed; and we incorporate flexibility to employ the best solutions to environmental impacts from a facility. States are the primary implementers of hazardous and solid waste management programs, along with EPA regional implementation of federal requirements. We are committed to supporting them.

### ***Our Objectives:***

- , *Set national goals:* We have set GPRA goals, for the year 2005, to have controls in place at 80 percent of hazardous waste management facilities to prevent dangerous releases to air, soil, and surface and ground water. We will support and work in partnership with states, and EPA regions to meet these goals. Together, in 2003, we have recently set new, challenging goals beyond 2005 with respect to permitting waste management.
  
- , *Support state implementation of hazardous and solid waste programs:* We will identify and address national issues, in consultation with our state, EPA regional, and tribal partners. We provide grant funds and technical assistance; we develop national guidances; and we work to create networks and track results with our partners to leverage resources to implement waste management programs; we work with ASTWMO to provide support more effectively to states; and we work with our partners to incorporate the emerging emphasis on pollution prevention and materials management.
  
- , *Build tribal capacity:* We will assist federally-recognized tribes to build capacity to develop and implement environmentally sound and economically sustainable waste management policies and programs that meet the needs of individual tribes. We will build partnerships with tribes, other federal agencies, state agencies, and local

communities to provide financial and technical assistance, outreach, and education, and foster regional solutions to environmental problems.

, *Maintain and update the federal regulatory programs:* We will complete program requirements and identify and address significant waste management risks and emerging environmental problems with a variety of tools to ensure the best environmental outcome in a cost-effective manner. We will modify national policies and regulatory requirements (especially in the hazardous waste program) to increase efficiency and flexibility. We will remove unnecessary barriers to integrated environmental management and resource conservation.

, *Assist industries to comply and move beyond compliance:* We will work in partnership with other EPA program offices and states to target compliance assistance for specific regulations or industrial sectors. Our goal is to make it easier for industries to understand and comply with regulatory obligations and to help them move beyond compliance to pollution prevention and integrated environmental management.

, *Engage state regulatory agencies, industries, communities and citizens to ensure that industrial and other solid wastes are managed protectively:* We will work in partnership to implement the voluntary *Guide for Managing Industrial Waste*, bring all stakeholders into the decision-making process for industrial waste management, and support state industrial waste management programs. We will also review other major categories of solid waste (e.g., construction and demolition wastes) to promote safe management and resource recovery.

, *Contribute to building protective global systems to manage waste and materials:* We will remain active participants in international environmental organizations to ensure that our growing global economy addresses transboundary movement of wastes and integrates protective waste and materials management programs.

### ***Goal 3: Cleaning up Problems from Past Practices: Moving Away From the Past Toward the Future***

***Our Mission:*** Facilitate protective, practical completion of cleanups at hazardous waste treatment, storage, and disposal facilities and help develop and/or strengthen state and tribal waste cleanup programs.

***The Challenge:*** Several thousand RCRA facilities that currently or previously stored, treated, or disposed of hazardous waste have potentially released hazardous wastes to the environment. Cleanup may be costly and can take considerable time. The challenges we face are achieving timely cleanups at high priority facilities and creating an environment in which all stakeholders can work together using a variety of tools and cleanup programs to pursue common goals and encourage cleanup of all sites that pose a risk to humans or the environment.

Nationwide, there are 1,104 open dump sites on Indian land, according to a 1998 report to Congress by the Indian Health Service (IHS). Of these, the report classifies 142 as “high threat.” If left unchecked, the sites could cause health problems for native Americans. The challenge we face is working with tribes and other federal agencies to ensure that these dumps are cleaned up, and that solid waste is managed in the future in ways that do not create new open dumps.

#### ***Our Objectives:***

- , *Set national reforms and goals:* Our 2005 GPRA goals are to control human exposures at 95 percent of high priority RCRA facilities and to control ground water releases at 70 percent of high priority RCRA facilities. We are supporting and working in partnership with states, EPA regional offices, industries, other federal agencies, tribes, and the public to achieve these GPRA goals. And, as part of EPA’s new Strategic Plan, we have set challenging and achievable new goals for the later phases of corrective action – remedies selected and construction complete – to ensure environmental benefits and results.
- , *Promote mechanisms for flexible cleanups:* Flexibility is necessary to address new program priorities and to promote use of all available cleanup resources and authorities. We have developed policies that encourage the use of state cleanup programs and that empower industry to move forward with cleanups on their own (facility lead approaches).
- , *Support a “one cleanup program” framework to coordinate the various federal, state, and tribal programs:* We will build on the collective experience of multiple cleanup programs in the “one cleanup program.” Each program has gained insights that can benefit the other programs and will be shared with the regions and states of all the

programs. We will promote mutual acceptance of innovative ideas and approaches across all the “one cleanup program” programs. These approaches include sound and protective remedies, technical solutions for common problems, and coordinated information systems.

, *Promote revitalization and reuse:* We will assist the regions and states (our partners) in applying the lessons learned from Brownfields to complement our traditional cleanup program; encourage our partners to consider community development needs as part of the cleanup process; and encourage the completion of faster cleanups and develop policies to advance this goal.

, *Support tribal open dump clean up and prevention program:* This program brings together, tribes, EPA regions and other federal agencies to coordinate funding and activities to clean up and prevent open dumps in Indian Country. The program includes providing funding, developing training tools and information, and building solid waste management capacity for tribes and setting goals. Together, we will set challenging and achievable goals to ensure sustainable environmental benefits and results and empower tribes to move forward with solid waste efforts on their own.