

# U.S. Environmental Protection Agency Mid-Atlantic Region



## Partner's Guide to the Mid-Atlantic Sustainability Partnership

*May 20, 2010*

## Partner's Guide to the Mid-Atlantic Sustainability Partnership

<b>1. Purpose &amp; Goal</b> .....	1
<b>2. The Value Added by the EPA Mid-Atlantic Sustainability Partnership</b> .....	1
<b>3. Plan Your Organization's Sustainability Program</b> .....	2
<b>3.1 Form a Team</b> .....	2
<b>3.2 Suggestions on Forming a Team</b> .....	3
<b>3.3 Conduct a Baseline Sustainability Assessment</b> .....	3
<b>3.4 Environmental Management System</b> .....	3
<b>3.5 Define Your Sustainability Program's Scope</b> .....	4
<b>4. Consult EPA's Sustainability Partnership Team</b> .....	5
<b>4.1 Online Resources</b> .....	6
<b>5. Design Your Sustainability Program</b> .....	6
<b>5.1 Make a Commitment and Set Goals</b> .....	6
<b>5.2 Share your Baseline Data and Plans with EPA</b> .....	6
<b>6. Implement Your Program</b> .....	7
<b>7. Measurement — Calculating Sustainability Benefits</b> .....	7
<b>7.1 Why Measure?</b> .....	8
<b>7.2 How to Measure</b> .....	8
<b>8. Share Your Results</b> .....	9
<b>8.1 Announce Your Achievements</b> .....	10
<b>9. Reassessment for Continuous Improvement</b> .....	10
<b>10. Administration of Partnerships</b> .....	10

### Appendices

- Appendix A- Sustainability Assessment Approaches
- Appendix B- Related Success Stories from EPA WasteWise & Energy Star Partners
- Appendix C- Organization Wide Sustainability Activities, Examples
- Appendix D- Sustainability Partnership Work Plan, Example Format
- Appendix E- SP Partnership Work Flow Model
- Appendix F- Sample Press Release
- Appendix G- Sample Article

Note: This document or its appendices do not create any rights or benefits, substantive or procedural, enforceable by law or equity for or against EPA and signing organization, its officers, or employees, nor does it affect EPA's or signing organizations rights, duties or obligations under the authorities of any applicable laws. Nothing in this document implies EPA's endorsement of any commercial policies, activities or products. Nothing in this document requires EPA or signing organization to obligate or expend funds on behalf of the contents set forth, or gives rise to a claim for compensation for any actions taken based on this document.

U.S. EPA Mid-Atlantic Region  
Sustainability Partnership  
[www.epa.gov/reg3wcmd/spp/index.html](http://www.epa.gov/reg3wcmd/spp/index.html)

## 1. Purpose & Goal

This document serves as a guide for Partners of the U.S. Environmental Protection Agency (EPA), Mid-Atlantic Regional Office, Sustainability Partnership. The Sustainability Partnership (SP) is an EPA initiative designed to facilitate sustainability at major organizations (public, private, etc.) in the mid-Atlantic region through the use of collaboration and leveraging. By sharing expertise within programs such as WaterSense, Energy Star and WasteWise, etc., EPA has proven that working with industry, institutions and governments can produce significant results in the reduction of waste generation, natural resource usage, and energy consumption.

The overall goal of the Mid-Atlantic Sustainability Partnership is to holistically reduce the environmental footprint of organizations as demonstrated through metrics (such as universally recognized measurements that include BTUs of energy, waste tonnage, gallons of water, etc.). EPA believes these reductions will provide increased protection of human health and the environment for current and future generations.

The sections of this guide are designed to assist your organization with the recommended steps to begin or advance your journey toward sustainability.

## 2. The Value Added by the EPA Mid-Atlantic Sustainability Partnership

Many signs suggest that our country is interested in “greening” the home, workplace and elsewhere. The inherent value of greening exists with:

- Energy and material savings
- Improved operating efficiencies
- Expanded market opportunities
- Improved job satisfaction, employee recruiting, and worker productivity
- Enhanced brand and organizational reputation

For example, energy represents a major cost and a major opportunity for organizations. By making smart energy choices, organizations can save a lot of money each year. In 2006 alone, with the help of EPA's Energy Star program, \$14 billion on energy bills was saved while preventing the greenhouse gas emissions equivalent to 25 million vehicles. Organizations can benefit by driving waste out of manufacturing, transport, and delivery functions and by carving out a share of the growing green economy.

SP can help organizations “go green” by building upon EPA's individual partnership programs and by delivering coordinated technical assistance. SP participants:

- Are matched with an EPA Sustainability Coordinator - a single point-of-contact at EPA
- Are given tools and educational materials to implement and develop programs
- Receive support in developing sustainability plans and quantifying environmental results
- Receive technical assistance from participating environmental agencies and/or other partners
- Network and share lessons learned with other members

- Receive feedback from EPA on conducting an organizational operations assessment, defining environmental goals, and evaluating project options
- Receive EPA recognition for significant sustainability accomplishments

EPA is uniquely positioned to help communicate your commitment and actions credibly to a wide local, national, and international audience. Through the SP initiative, for example, your organization can create a lasting record of its environmental footprint reduction activities and accomplishments. By joining SP, an organization gains access not only to EPA green resources and services, but often to those of many other affiliated organizations. The U.S. EPA is one of the few environmental bodies with national and international recognition and reach.

### **3. Plan Your Organization's Sustainability Program**

A well-designed and written sustainability program will help your organization establish and achieve energy, water, waste reduction and other goals and thereby minimize your environmental footprint. Operational cost-savings are also likely from “going green”, especially when total life-cycle costs are accounted for.

Please consider the recommendations below to create a firm foundation for your sustainability efforts.

#### **3.1 Form a Team**

Form a sustainability team made up of employees responsible for maintaining your environmental or sustainability programs—planning, designing, and implementing activities. By forming a team, employees throughout your organization can share in your sustainability plans and activities. The size of your team will depend on the size of your organization and its individual departments/operations. Begin to collect background information on your organization and contact information for relevant employees. You might want to review your organization's operational records or interview facility and department contacts. If your organization occupies several different buildings or locations, you might want to record the requested information separately for each organizational unit.

Team Members may be responsible for:

- Working with your organization's management to set the sustainability program's short- and long-term goals.
- Gathering and analyzing information related to the design and implementation of your program, including determining the recommended physical actions needed to advance toward sustainability.
- Promoting the program to other employees and educating them on opportunities to participate.
- Monitoring program progress.
- Reporting the status of the program to management.
- Sharing results of your organization's sustainability efforts with the EPA SP Team.

### 3.2 Suggestions on Forming a Team

A modest sustainability team should include at least two or more people that are familiar with the organization's overall operations—such as a manager, senior staff and/or others as appropriate.

Large organizations may wish to create a team of employees from various departments—such as environmental managers, building supervisors, facility managers, technical/operational staff, administrative staff, maintenance staff, and purchasing staff. Organizations can request volunteers and/or appoint members, and should make membership a sign of special recognition. The team should meet regularly to develop a plan and begin implementation. Large facilities will need several months or more to design and implement their programs, although some simple options can be implemented much sooner.

The Team Leader: Management or the team should elect a knowledgeable and motivated team leader capable of:

- Directing team efforts
- Administering program planning, implementation, and operation
- Acting as a liaison between senior management and the team

Likely candidates for a team leader include: facility manager, environmental manager, or an employee who has championed sustainability in your organization, etc. The sustainability team leader's tasks should be incorporated into the team leader's written job description. Larger organizations should consider the increasingly popular approach of creating a position for a full-time sustainability manager or a “Chief Sustainability Officer.”

### 3.3 Conduct a Baseline Sustainability Assessment

A sustainability assessment is a systematic review of your facility and its operations to quantify energy usage, natural resource usage and waste generation. Sustainability assessment data will give your team a much better understanding of the types and amounts of energy and natural resources used and waste generated at your organization. A sustainability assessment:

- Identifies energy usage, types, and trends
- Quantifies natural resource usage, such as for materials and water (raw, process, etc.)
- Identifies waste generated at your facility and purchasing and management practices
- Examines current environmental and sustainability practices and assesses their effectiveness
- Identifies the areas and materials in which sustainability efforts will be most effective
- Sets a baseline for measuring future progress of sustainability efforts

Please see Appendix A, Sustainability Assessment Approaches, for common approaches to conducting an assessment.

### 3.4 Environmental Management System

Having a facility or an environmental management system already in place, or creating one, would facilitate your sustainability assessment and program implementation. An “environmental

management system” (EMS) allows an organization to systematically manage its environmental, health and safety matters. An EMS is a continual cycle of planning, implementing, reviewing and improving the processes and actions that an organization undertakes to meet its functional and environmental goals. The typical EMS is built on the "Plan, Do, Check, Act" model. This model leads to continual improvement based upon:

- *Plan*  
Planning, including identifying environmental aspects and establishing goals
- *Do*  
Implementing, including training and operational controls
- *Check*  
Checking, including monitoring and corrective action
- *Act*  
Reviewing, including progress reviews and acting to make needed changes to the EMS.

An EMS can result in both functional and environmental benefits. For example, an EMS may help you:

- Improve environmental performance
- Enhance compliance
- Prevent pollution and conserve resources
- Reduce/mitigate risks
- Attract new customers and markets (or at least retain access to customers and markets with EMS requirements)
- Increase efficiency
- Reduce costs
- Enhance employee morale and possibly enhance recruitment of new employees
- Enhance image with public, regulators, lenders, investors
- Achieve/improve employee awareness of environmental issues and responsibilities

A Partner's EMS should include five elements: policy, planning, implementation and operation, checking and corrective action, and management review. Partners should also have their EMS independently assessed and have re-assessments every three years. For additional information on EMS, please visit common reference sources as well as:

[www.epa.gov/ems/index.html](http://www.epa.gov/ems/index.html)

### **3.5 Define Your Sustainability Program's Scope**

Defining your sustainability program's scope will focus your activities and resources on certain areas of your organization. To determine scope, examine your facilities or key operations for sustainability opportunities, and then choose sustainability areas on which to focus in the short and long terms. As a first step, many organizations first tackle the “low-hanging fruit” and subsequently advance to higher-level opportunities.

To stay competitive, organizations must continually find new ways to improve efficiency and cut costs. EPA's voluntary program partners have demonstrated that preventing waste offers significant cost savings. But where do you find the biggest savings for your organization? First, identify each of your key operations. Then, for each key operation, identify the products and materials used or generated in the largest quantities. These are the materials that should be first evaluated for opportunities.

For example, depending on the type of organization, partners may find the greatest cost savings in the following areas: shipping and receiving (reducing transport packaging), office operations (reducing paper that is mailed or used internally), and manufacturing (reducing process waste or the amount of material used in a product). Note that the greatest waste prevention savings often accrue from avoided purchasing costs. This means that for any of the above areas, purchasing records can be an important key for identifying major purchases so they can be evaluated for waste prevention potential. Work with the purchasing agents and records to identify major purchases that could be reduced, e.g., by working with suppliers to reduce packaging or through the minimization or reuse of supplies. An example can be found in Appendix B: Related Success Stories from EPA WasteWise & Energy Star Partners.

Partners should establish goals in all functional areas: energy, water, waste, materials, etc. EPA encourages organizations to set quantifiable, achievable goals. Goal setting, combined with Partner success stories, illustrates successful methods for effectively implementing sustainability actions. Partners may use the ideas in this guide as a catalyst for developing and expanding goals. Additional ideas for goals may be found within the various focused partnership programs available on the EPA website [www.epa.gov/partners/](http://www.epa.gov/partners/) and from your EPA Sustainability Coordinator, who is available to answer questions regarding goal setting.

Partners should consider implementing a number of sustainability activities on an organization-wide basis. These efforts may range from conducting employee education campaigns to developing techniques to measure energy & waste reduction and instituting sustainability policies that cover all employees. Management can use organization-wide initiatives to establish and communicate a commitment to sustainability that empowers employees to act, such as issuing a formal policy statement that includes sustainability as an essential corporate element. Organization-wide efforts to "Go Green" foster a feeling of pride in the workplace as employees work collectively to improve the environment for current and future generations. Examples of organization-wide activities that can be initiated by Partners are included in Appendix C.

#### **4. Consult EPA's Sustainability Partnership Team**

Partners have access to sustainability technical assistance from EPA. Your assigned EPA Sustainability Coordinator and other specialists can help you create plans, identify goals, share insights and success stories and answer program questions. He/she can also provide you with sustainability guidance and voluntary program resources as you work to develop plans and meet your goals.

## 4.1 Online Resources

An online collection of sustainability resources continues to grow:

For EPA Mid-Atlantic Going Green guidance:

<http://www.epa.gov/region03/green/>

<http://www.epa.gov/reg3wcmd/spp/index.html>

For EPA national sustainability and partnering guidance:

<http://www.epa.gov/sustainability/>

<http://www.epa.gov/partners/>

## 5. Design Your Sustainability Program

Develop criteria that your organization can use to quickly screen potential sustainability activities before conducting a detailed evaluation of promising options. Also consider the economic and operational feasibility of options. Consult purchasing officials, financial advisors, or department managers as necessary.

### 5.1 Make a Commitment and Set Goals

Use the results of your sustainability assessment to identify appropriate activities. Set goals that can be tracked and measured. Partners can implement a number of activities on an organization-wide basis. These efforts range from conducting employee education campaigns to developing techniques to measure reductions that cover all employees. Management can use organization-wide initiatives to establish and communicate a commitment to sustainability that empowers employees to act.

A top-level commitment to sustainability is crucial to success – no matter your type of organization or size. To make that commitment, EPA recommends that your organization's most senior managers endorse the sustainability policy statement, plans and goals. If you prefer, EPA can assist your organization's efforts to establish goals – please discuss with your EPA Sustainability Coordinator.

### 5.2 Share your Baseline Data and Plans with EPA

Within 60 – 90 days of signing the SP agreement, EPA asks that a written work outline be created to broadly direct our partnership. Your assigned EPA Sustainability Coordinator can help guide you in the development of this outline.

EPA asks Partners to establish a baseline set of environmental metrics and to subsequently set goals based on the data obtained from the sustainability assessment. Please share your sustainability assessment, baseline data and sustainability plans with your EPA Sustainability Coordinator. EPA will review submitted plans and provide comments back to your organization

within 30 days of receipt. An outline and schedule or a “workplan” is recommended for the creation of baseline, planning and goals document(s), as needed. An example of such a format is included in Appendix D. After considering EPA’s comments, if any, on your plans, please revise and resubmit the plans to your EPA Sustainability Coordinator within 30 days of receiving EPA’s comments. This document will help to form the basis of our partnership. Of course, with SP being a voluntary program, neither the Partner or EPA is legally bound or otherwise committed to the contents, schedule, or other particulars of the workplan or associated documents. The Partner or EPA are free to agree to different schedules as needed.

Appendix E provides a flow chart that illustrates the overall SP process and the likely flow variations that should develop dependant on where a particular Partner exists on a sustainability continuum. The chart includes the typical major activities recommended for our partnership. Of course, the Partner and the EPA Sustainability Coordinator are free to develop an alternate work flow approach.

Partners should note that information submitted to EPA will be subject to Freedom of Information Act disclosures to the public. Partners should designate anything they wish to be treated as “confidential business information” as such.

## **6. Implement Your Program**

Once your sustainability team has set measurable goals, it is time to launch your sustainability initiatives. Many successful programs begin with an organization-wide kickoff event that offers your organization’s leaders an opportunity to encourage participation and explain your goals.

Please share progress on the implementation of the sustainability plan and schedule with your EPA Sustainability Coordinator.

## **7. Measurement — Calculating Sustainability Benefits**

This section discusses how program scope affects program implementation and measurement. Use the results of your sustainability assessment to help choose sustainability activities. Consider holding a brainstorming session to identify potential conservation and prevention activities. List your most promising options and evaluate them in terms of economic and operational feasibility.

When analyzing and selecting your options:

- Focus on conservation, which will help your organization eliminate waste at the source. By conserving energy and resources, your organization will reduce costs.
- Evaluate options to manage waste that cannot be prevented.
- Examine alternative energy opportunities.

## 7.1 Why Measure?

Measurement is critical to every component of a sustainability program. Here are the main benefits of measurement:

- Quantifies the results of sustainability programs for management.
- Is an essential factor in perpetuating most Partners' sustainability programs.
- Provides positive publicity opportunities. Public recognition of an organization's environmental stewardship is a considerable marketing asset. But this type of positive publicity is only practical when Partners take the time to monitor and report program successes.
- Reveals the economic and environmental value of implementing sustainability activities. By quantifying these benefits, measurement helps justify your organization's continued involvement. Effective measurement reveals, for example, which activities are most efficient and which save the most money—vital information for your organization's future allocation of resources.
- Uncovers opportunities for process efficiency. Measurement can bolster the overall productivity of your organization. Careful measurement, for example, can reveal that your organization is wasting money on processes and materials that are underused.
- Motivates employees. Measurement can be a valuable tool in motivating employees to participate in efficiency finding programs.
- Fulfills an SP Partner's responsibility. Yes, SP is a voluntary program, but it also carries with it a few important responsibilities—in particular, the responsibility to commit to sustainability.
- Allows you to compare your organization's efforts to others and contribute to aggregate results.

## 7.2 How to Measure

Now that you know why you should measure your organization's sustainability results, where do you begin? After determining the scope and possible resource constraints for measurement, you should identify and evaluate available data sources. Keep in mind that for SP reporting purposes, material-specific estimates based on best professional judgment are all you need. But for the many reasons discussed at the beginning of this section, you might want to conduct more detailed measurement activities, which usually require higher resource investments. A good way to maximize time and resources is to establish a team to coordinate measurement efforts among appropriate departments. Teamwork can generate useful input and perspectives throughout an organization. An employee in the purchasing department, for example, will be more familiar with how much of a given item the organization purchases, while an employee in field operations will know more about how that item is used and discarded. Another way to streamline your measurement responsibilities is to piggyback the project on existing training, reporting, invoicing, or auditing activities. Try to enlist internal or external support for measurement. For example, university students can help collect data and design a measurement strategy for a minimal cost. Organizations with more available resources might consider using consultants with experience in measurement who can help tailor a program to fit a particular organization.

While the details of measurement processes will vary among Partners, the basic steps are the same:

- Establish a baseline (EPA has tools to assist in this regard, e.g., Energy Star Portfolio Manager<sup>1</sup>, [http://www.energystar.gov/index.cfm?c=evaluate\\_performance.bus\\_portfoliomanager](http://www.energystar.gov/index.cfm?c=evaluate_performance.bus_portfoliomanager) )
- Collect data on a routine basis
- Make allowances for variables, such as seasonal or economic fluctuations
- Calculate results

Don't forget to consider "avoided" resource, energy or waste costs in your measurements. What is an ounce of prevention worth to your organization in terms of financial or environmental terms? An ounce of prevention might be worth hundreds of dollars, an acre of trees, a metric ton of greenhouse gas, or a cubic meter of landfill space, depending on how you calculate it. Before you share the results of your sustainability activities, consider how those "ounces" translate into cost savings, environmental benefits, and additional hidden profits.

Among the environmental benefits are reductions in greenhouse gas emissions, natural resources and energy usage. EPA's WASTE Reduction Model ("WARM") and other tools can be used to translate recycling, prevention and emission reduction activities into common terms such as *acres of trees saved, barrels of gasoline saved, number of cars off the road*, etc. Please visit the following websites or talk with your EPA Sustainability Coordinator for assistance in this area. [www.epa.gov/climatechange/wycd/waste/calculators/Warm\\_home.html](http://www.epa.gov/climatechange/wycd/waste/calculators/Warm_home.html)

<http://www.epa.gov/cleanenergy/energy-resources/calculator.html>

## 8. Share Your Results

Partners can submit progress reports on your sustainability plans to your EPA Sustainability Coordinator at a frequency of every six months to once per year, from the date of the signing of the SP agreement. EPA will welcome reports based on your organization's fiscal year if convenient for your organization. For example, EPA's fiscal year begins on October 1 of the previous calendar year and ends on September 30 of the year with which it is numbered. Note, progress reports can be submitted regardless of the implementation status of your sustainability plans.

EPA will use reports to determine individual and overall program success and for where recognition may be warranted. EPA may also promote program achievements through various publications and case studies. All Partners submitting reports that include environmental data would, upon request, receive a profile that translates your results into more common metrics such as barrels of oil saved, cars off the road, etc.

---

<sup>1</sup> The Portfolio Manager is a software tool, which is the engine of the ENERGY STAR Buildings program. It allows organizations to measure, track, and compare the energy use of all of their buildings online with just a few clicks inside their own private account.

Partners should note that information submitted to EPA will be subject to Freedom of Information Act disclosures to the public. Partners should designate anything they wish to be treated as “confidential business information” as such.

### **8.1 Announce Your Achievements**

Announce your sustainability successes to your employees and communities to maintain momentum, increase program awareness and sustain management support! Sharing your success with the community will demonstrate your organization's environmental leadership.

Partners that have received a welcome letter from EPA and have committed to submitting their organization's baseline data are eligible to highlight SP membership in their own materials. Partners may use SP membership to help promote sustainability efforts internally and externally. Internally, use it to educate your employees about your participation in the initiative. Externally, use it to inform people that your organization is actively working toward becoming more sustainable.

Use the following tools and guidelines to promote your sustainability accomplishments and participation in SP:

#### Issue Press Releases

- Issue press releases to share information about your program's success. Customize our sample press release in Appendix F to get started.

#### Publicize Your Program in Articles, etc.

- Use articles to inform your employees about how they can get involved and to share your sustainability goals with your stakeholders. Customize and use the sample article in Appendix G in your internal newsletters or annual report.
- Present results at appropriate conferences

## **9. Reassessment for Continuous Improvement**

No major organization is ever static, so provide a periodic sustainability reassessment and refine your operations to adapt to changing times. With greener and more cost-effective energy and resource conserving technologies coming to market at increased frequency, what was not practical this year, may indeed be very sensible the subsequent year. Include provisions for reassessment and continuous improvement into your organization's long-term sustainability plans.

## **10. Administration of Partnerships**

An organization is considered a “Partner” when an authorized representative of that organization has signed an EPA Mid-Atlantic Sustainability Partnership Agreement and that same Agreement has been accepted by EPA as evidenced by a written welcome letter from EPA to the Partner.

EPA or the Partner may dissolve its Partnership at any time without need for reason or cause. A written letter is advised to document such a dissolution.

The assigned EPA Sustainability Coordinator is planned to act as the liaison or “single point of contact” between the organization and all of EPA’s non-regulatory programs, including the individual partnership programs. Please note that membership in individual EPA partnership programs may be necessary in addition to SP in order to gain certain support or resources. Furthermore, prior or current membership in an individual EPA partnership program(s) would not prevent membership in SP.

Partners should note that EPA will consider a Partner’s regulatory compliance status with federal and state laws as a condition of initial or continued membership. EPA reserves the right to deny initial or continued membership to any organization.

*~End of Document~*

**Partner's Guide**  
**US EPA Mid-Atlantic Sustainability Partnership**

## **Appendix A: Sustainability Assessment Approaches**

Records examinations, facility walk-throughs, and waste sorts are common approaches to conducting a sustainability assessment. Your assessment might require a few or all of these activities or a combination of various approaches. The team should determine which assessment is best for your organization based on factors such as facility type and size, complexity and available resources.

### **Records Examination**

Examining records can provide insight into your organization's energy usage, material usage and waste generation. The types of records you might find useful include:

- Utility bills.
- Purchasing, inventory, maintenance, and operating logs.
- Supply, equipment, and raw material invoices.
- Waste hauling and disposal records and contracts.
- Contracts with recycling facilities and earned revenues from recycling.

The documentation and analysis of the above will help the team estimate your organization's environmental footprint and the costs of it. In this way, the team can compile important baseline data against which potential sustainability options can be explored.

### **Walk Through**

A walk-through involves touring your organization's facility(s), observing different functional areas or departments' activities, and talking with employees and managers about energy usage, material management, and waste-producing, activities and equipment.. Specifically, a walk-through will enable the team to:

- Observe the types and relative amounts of energy used and wastes produced.
- Identify inefficient activities and equipment.
- Detect inefficiencies in operations or in the way waste moves through the organization.
- Observe the layout and operations of various departments.
- Assess existing space and equipment that can be used for storage, processing recyclables, and other activities.
- Assess current pollution prevention, waste reduction and sustainability efforts.
- Collect additional information through interviews with supervisors and employees.

Before conducting the walk-through, the team should inform the functional area or department managers of the assessment and arrange interviews with employees. The interviews offer important additional detail on operational practices. Moreover, interviews help keep employees

informed and interested in the sustainability program, and offer an opportunity to ask questions. Employees also can be a valuable source of ideas. During the walk-through, ask questions about variations in daily or seasonal practices. For example, periodic deliveries might result in more activity on the delivery day. In addition, ask about any recent or upcoming changes within the function area or department, such as new equipment or procedures. Be sure to pay close attention to areas and operations that tend to use the most energy or generate the largest amounts of waste. Remember to include a review of the grounds maintenance operations.

## **Waste Sort**

A waste sort involves the physical collection, sorting, and weighing of a representative sample of your organization's waste. The goal of a waste sort is to identify each waste component and calculate its percentage of your organization's total waste generation. Waste sorts can focus on an entire organization's waste stream or target specific functional areas such as on attached worksheet.

Some organizations choose to assemble and measure one day's worth of waste. Others choose to assemble a portion of the waste from each department for measuring. However you choose to structure the waste sort, the team should consider whether waste generation varies significantly enough from one day to the next to distort results. Multi-day sampling provides a more accurate representation of your organization's waste generation.

The team will also need to determine which waste categories to quantify. Typically, the major components of an organization's waste stream include paper, plastic, glass, metal, and organic material such as yard trimmings and food scraps. If possible, the team should strive to separate and measure the waste sample as completely as possible. These measurements will be useful when determining which materials can be exchanged, reused, sold, or recycled.

## **Other Walk-Through Areas**

The walk-through and sorts discussed elsewhere in this Appendix are partial examples for where to assess your organization's environmental footprint and to look for opportunities to become more sustainable. Certainly, any areas where natural resources, water and energy are used, or where waste is generated, are prime locations to assess.

## Function Areas

The following are key questions to ask when assessing specific function areas:

Function Area	Key Questions
Office	<p>Do you reduce paper use by:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Double-sided copying</li> <li><input type="checkbox"/> Double-sided printing</li> <li><input type="checkbox"/> Using scrap paper for notes</li> <li><input type="checkbox"/> E-mailing memos</li> <li><input type="checkbox"/> Not printing drafts or printing them on scrap paper</li> <li><input type="checkbox"/> Printing faxes on scrap paper</li> <li><input type="checkbox"/> Printing letterhead or forms on demand</li> <li><input type="checkbox"/> Offering a printer drawer for one-sided scrap paper</li> <li><input type="checkbox"/> Using erasable boards/Power Point instead of flip charts</li> </ul> <p>Do you reuse office supplies or maintain a supply swap?</p> <p>Do you recycle items?</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Office Paper</li> <li><input type="checkbox"/> Mixed Paper</li> <li><input type="checkbox"/> Corrugated Cardboard</li> <li><input type="checkbox"/> Newspaper</li> <li><input type="checkbox"/> Magazines</li> <li><input type="checkbox"/> Toner Cartridges</li> <li><input type="checkbox"/> Electronic Equipment</li> </ul> <p>Do you donate any materials?</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Computers</li> <li><input type="checkbox"/> Furniture</li> <li><input type="checkbox"/> Office Supplies</li> </ul>
Custodial and Maintenance	<p>Does your cleaning staff use reusable rags and other cleaning items?</p> <p>Does your cleaning staff use bulk or concentrate cleaners?</p>
Purchasing	<p>Do you purchase recycled products?</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Office supplies (folders, mailing envelopes, plastic trays)</li> <li><input type="checkbox"/> Copy and printing paper</li> <li><input type="checkbox"/> Letterhead, stationery, envelopes</li> <li><input type="checkbox"/> Binders</li> </ul> <p>Do you purchase reusable, durable products?</p> <p>Do you purchase items in bulk with less packaging?</p> <p>Do you purchase concentrates when possible (e.g., cleaning products)?</p>

<p><b>Food Service</b></p>	<p>Do you recycle?</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Aluminum Cans</li> <li><input type="checkbox"/> Glass Bottles</li> <li><input type="checkbox"/> Steel Cans</li> <li><input type="checkbox"/> Plastic Bottles and Jugs</li> <li><input type="checkbox"/> Corrugated Cardboard</li> <li><input type="checkbox"/> Mixed Paper (paperboard packaging)</li> <li><input type="checkbox"/> Plastic Bags and Film</li> </ul> <p>Do you donate any leftover food – perishable or nonperishable?</p> <p>Does your food service area provide reusable serviceware?</p> <p>Do you encourage the use of reusable cups and mugs?</p> <p>Do you provide bulk condiments for in-store use such as sugar, creamer, ketchup, mustard?</p>
<p><b>Vehicle Maintenance</b></p>	<p>Are used tires retreaded or recycled?</p> <p>Are rags or other cleanup products reusable (e.g., absorbent pads, filters)?</p>
<p><b>Shipping</b></p>	<p>Do you use reusable shipping materials?</p> <p>Do you reuse incoming packaging materials for outgoing shipments?</p> <p>Do your customers return shipping materials to you for reuse?</p>
<p><b>Manufacturing</b></p>	<p>Do you reduce the amount of manufacturing scraps or byproducts?</p> <p>Do you reuse manufacturing scraps or byproducts?</p> <p>Do you manufacture recycled-content products?</p>

**Partner's Guide**  
**US EPA Mid-Atlantic Sustainability Partnership**

## **Appendix B: Related Success Stories from EPA WasteWise & Energy Star Partners**

### WasteWise

#### Partner Success Stories

The case studies below illustrate waste prevention successes in three key areas: office paper reduction, transport packaging reduction, and reduction of waste from manufacturing processes. For most organizations, those activities have a proven track record in yielding significant cost savings. Depending on the size, structure, and primary operations of an organization, the biggest cost saving opportunity, and the amount of potential savings, may differ.

#### Conserving Office Paper at BellSouth Telecommunications

Bell South Telecommunications conserved 16 million sheets of printout paper and saved \$3.5 million by implementing an electronic filing system. The organization's system of storing reports electronically enables employees to view, download, or print reports archived in the organization's data centers from their own workstations. Implementing this system has helped the organization conserve paper, improve efficiency, and reduce the need for paper storage. Prior to initiating the electronic filing system, employees could only obtain reports by ordering complete printed copies. Employees now can save resources by viewing reports online or printing individual pages.

#### Transport Packaging Reduction Leads to Big Cost Savings

Pepsi-Cola saved \$44 million by switching from corrugated to reusable plastic shipping containers for one liter and 20-ounce bottles, conserving 196 million pounds of corrugated material.

Dow Corning Corp. reconditioned steel drums, saving nearly \$2.3 million and conserving 7.8 million pounds of steel. In addition, Dow Corning saved \$530,000 by repairing and reusing 1.7 million pounds of wood pallets.

AMP, Inc., an electronics manufacturer, established a returnable tote program for shipping products to its customers. The switch to reusables from corrugated containers saved the organization nearly \$450,000 and conserved 478,000 pounds of corrugated material.

HASBRO, Inc. reduced the thickness of corrugated shipping containers by 15 percent, which saved \$400,000 and conserved more than 763,000 pounds of material.

#### EG&G Employee Teamwork Reduces Manufacturing Waste

EG&G, a high-technology and scientific equipment supplier, uses employee teams to identify sustainability opportunities. Discussions between an engineer and a purchasing expert uncovered one opportunity that now saves the organization nearly \$100,000 each year. By changing the specifications for a steel-alloy part used in manufacturing seals, EG&G was able to purchase an alternative material that required less cutting and shaping to meet the customers' needs. Just this one material switch reduced EG&G's shipping costs, maintenance costs (to clean up waste), and labor costs (by 33 percent). The organization also realized substantial savings through a 66 percent reduction in metal waste.

## Energy Star

### 1900 K Street, Washington, DC

Designed by the firm of Cesar Pelli & Associates and constructed in 1996, 1900 K Street is a distinctive 13-story office building in downtown DC. In 1999, the building received an ENERGY STAR score of 32 (on a 1-100 scale). By trying to better understand the design of the building, the building's facility team, led by Hines, was able to close the gap between design intent and actual operations. They calibrated controls, installed motion sensors and a variable frequency drive, reprogrammed the building's energy management system, improved maintenance and routing assessments, upgraded one chiller, and fine-tuned settings. As a result, within three years the building received an ENERGY STAR score of 75, making it eligible for the ENERGY STAR. The building now saves \$1.09 per square foot in energy costs, and reports an annual CO2 emission reduction of 46 million pounds, and has earned the ENERGY STAR label six times.

### Bruton High School, Williamsburg, VA

Built in 1976, Bruton High School in York County, Virginia, received a complete renovation in 2003. The renovation included lighting and equipment upgrades, new windows, a cool roof, a building automation system, and a new geothermal heating and cooling system to replace the old all-electric system. The geothermal system consists of 85 new heat pumps, six energy-recovery units, and 320 underground loops that each plunge to a depth of 200 feet. As a result of this top-to-bottom renovation, Bruton High School became the first high school in Virginia to earn EPA's ENERGY STAR. Officials often lead architects, engineers, and officials from other school districts on building tours, and report that the annual operating cost for the renovated school building is \$0.67 per square foot—significantly less than average.

### Food Lion Company

Any organization working to increase its energy efficiency levels year after year knows that the ability to cut consumption becomes increasingly more difficult as the low-hanging projects are picked off. Yet despite this increasingly difficult assignment, Food Lion pushed its energy efficiency efforts and, as a result, was able to reduce energy consumption by as much as 10 percent each year. Energy efficiency is a key focus for Food Lion's upper management. Between 2000 and 2005, Food Lion quadrupled its Energy Department staff to 14 individuals. Food Lion's aggressive efforts to reduce energy consumption saved nearly \$104.8 million in actual dollars. Food Lion estimates that the company's 2005 energy budget would have been nearly \$46 million higher without the energy efficiency initiatives adopted in the previous four years. Between 2000 and 2005, Food Lion successfully decreased its kBtu/square foot by more than 25 percent.

**Partner's Guide**  
**US EPA Mid-Atlantic Sustainability Partnership**

## **Appendix C: Organization Wide Sustainability Activities, Examples**

Organization-wide efforts to “Go Green” can foster a feeling of pride in the workplace as employees work collectively to improve the environment for current and future generations. Examples of organization-wide activities that can be initiated by Partners are included below. Of course, organizations are free to pick and choose activities based on their short and long term sustainability plans and other factors.

### WASTE PREVENTION

#### Reduce

- Establish a waste reduction policy
- Offer online newspapers to employees
- Post organization-wide memos rather than distributing paper copies to each employee
- Distribute corporate telephone directories and manuals electronically
- Communicate with customers and employees using e-mail
- Eliminate quarterly reports by putting information on a toll-free phone line
- Avoid outdated letterhead by installing company letterhead on employees computers
- Remove organization name from bulk mailing lists
- Post employee forms, organization announcements, and newsletters to an Intranet

#### Reuse

- Donate old magazines and journals to hospitals, clinics, or libraries
- Reuse corrugated moving boxes internally
- Rent reusable boxes for office moves
- Donate unwanted supplies to local schools or non-profit organizations
- Develop an informal waste exchange with other organizations
- Develop an electronic bulletin board to facilitate reuse of materials and equipment
- Advertise surplus and reusable waste items through a commercial waste exchange

#### Educate

- Eliminate paper training manuals and install computer-based learning centers
- Publicize waste prevention activities through a new or existing employee newsletter
- Create green teams to brainstorm waste prevention activities
- Include waste prevention information in new employee orientations
- Develop an educational video for employees on elements of your organization's waste prevention program
- Conduct waste reduction contests among divisions with prizes and publicity
- Train employees in waste reduction techniques
- Promote waste reduction programs to other organizations

### Measure

- Require each facility to report on waste prevention, recycling, and cost avoidance
- Establish a solid waste measurement and reporting program to evaluate the success of waste prevention efforts
- Conduct waste audits to determine waste composition

### Recycling Collection

- Centralize collection of all recyclables
- Establish an inter-departmental recycling committee
- Educate employees on recycling correctly, emphasizing contamination issues
- Purchase plain paper fax machines so faxes are recyclable
- Formally track recycling activities using a current accounting system
- Acquire a compactor or baler to expand your recycling program
- Research potential markets for recyclables
- Make an on-line report available to all facilities comparing trash and recycling goals to actual results
- Promote recycling through an employee suggestion system
- Save office newspapers and cans for local recycling programs
- Increase recycling education and outreach programs in the community

### Green Procurement

- Invite organization purchasing agents to all recycling meetings
- Print documents, such as newsletters and annual reports, on recycled-content paper
- Continually review the recycled content in all products purchased
- Set purchasing policy to favor recycled-content products, such as price preference
- Educate and promote the use of recycled-content paper to customers
- Investigate “closed loop” programs, whereby an organization purchases products made from their own collected materials, such as plastic trash bags made from company waste plastics
- Research new products with recycled content

## ENERGY EFFICIENCY

EPA offers a proven strategy for superior energy management with tools and resources to help each step of the way. Based on the successful practices of ENERGY STAR partners, the following guidelines for energy management can assist your organization in improving its energy and financial performance while distinguishing your organization as an environmental leader.

- Institute an Energy Policy — Provides the foundation for setting performance goals and integrating energy management into an organization’s culture and operations.
- Gather and track data — Collect energy use information and document data over time.
- Establish baselines — Determine the starting point from which to measure progress.
- Benchmark — Compare the energy performance of your facilities to each other, peers and competitors, and over time to prioritize which facilities to focus on for improvements.
- Analyze — Understand your energy use patterns and trends.

- Establish goals - Create and express clear, measurable goals, with target dates, for the entire organization, facilities, and other units.
- Track and monitor — Track and monitor to measure the effectiveness of projects and programs implemented. Document additional savings opportunities as well as non-quantifiable benefits that can be leveraged for future initiatives.
- Providing internal recognition — to individuals, teams, and facilities within your organization.
- Receiving external recognition — from government agencies, the media, and other third party organizations that reward achievement.

Additional details at: [www.energystar.gov/index.cfm?c=guidelines.guidelines\\_index](http://www.energystar.gov/index.cfm?c=guidelines.guidelines_index)

Some specific energy and climate activities to consider:

- Maintain an annual carbon inventory of the organization's activities. Include all direct and indirect impacts of the organization's product or service on the environment.
- Develop a goal to increase your organization's use of renewable sources of energy and report progress annually.
- Produce an annual report that discusses what % of the organization's facilities completed in the past year were constructed to LEED, Energy Star or similar standards.
- Produce organization-wide incentives to encourage carpooling, the use of public transportation, bicycling, and pedestrian friendly access.
- Reduce the organization's travel needs through use of conference calls and electronic virtual meetings.
- Encourage or require your suppliers to embrace your organization's environmental and sustainability plans and goals.
- Participate in local, state, and national associations that foster environmentally sustainable practices.

## WATER EFFICIENCY

Water-efficiency measures reduce operating costs by saving on electric power, gas, chemical, and wastewater disposal expenses. By employing water-efficient practices, you convey an image of stewardship to employees, customers, and the general public because you are helping to conserve water for current and future generations.

### General

- Designate a water efficiency coordinator.
- Develop a mission statement and a plan.
- Educate and involve employees in water efficiency efforts.

### Equipment

- Install ultra-low flow toilets, or adjust flush valves or install dams on existing toilets.
- Install faucet aerators and high efficiency shower heads.
- Use water-conserving ice makers.
- As appliances and equipment wear out, replace them with water-saving models.
- Eliminate "once-through" cooling of equipment with municipal water by recycling water flow to cooling tower or replacing with air-cooled equipment.

### Practices

- Detect and repair all leaks.

- Minimize the water used in cooling equipment in accordance with manufacturer's recommendations. Shut off cooling units when not needed.

#### Kitchens and Laundries

- Turn off dishwashers when not in use. Wash full loads only.
- Scrape rather than rinse dishes before washing.
- Use water from steam tables to wash down cooking areas.
- Do not use running water to melt ice or frozen foods.
- Handle waste materials in a dry state whenever possible.
- Wash only full loads of laundry or select the appropriate washing cycle provided on the washing machine. Use a rinse-water recycle system. Consider purchasing high efficiency equipment.

#### Outside

- Have vehicles washed less often; use a commercial car wash that recycles water.
- If applicable, lower pool or fountain water levels to reduce amount of water splashed out and use backwash for landscape irrigation.
- Sweep or blow paved areas to clean, rather than hosing off.

#### Landscaping

Note: drought conditions may prompt municipal watering restrictions; therefore, some of the following tips may not apply.

##### Watering

- Detect and repair all leaks in irrigation systems.
- Use properly treated wastewater for irrigation where available.
- Provide watering during the coolest part of the day (early morning is best). Do not water on windy days.
- Water trees and shrubs, which have deep root systems, longer and less frequently than shallow-rooted plants which require smaller amounts of water more often. Check with the local extension service for advice on the amount and frequency of watering needed in your area.
- Configure sprinklers to avoid watering the street or sidewalk.
- Use soaker hoses and trickle irrigation systems.
- Install moisture sensors on sprinkler systems.

##### Planting

- Have soils tested for nutrient content and add organic matter if needed. Good soil absorbs and retains water better.
- Minimize turf areas and use native grasses.
- Use native plants in your landscape—they require less care and water than non-native ornamental varieties.

##### Maintaining

- Use mulch around shrubs and plants to reduce evaporation from the soil surface and cut down on weed growth.
- Remove thatch and aerate turf to encourage movement of water to the root zone.
- Consider requiring use of mulching-mowers and/or raise lawn mower cutting height—longer grass blades help shade each other, cut down on evaporation, and inhibit weed growth.

- Minimize or eliminate fertilizing which requires additional watering, and promotes new growth which will also need additional watering.

#### Ornamental Water Features

- Do not install or use ornamental water features unless they recycle the water. Use signs to indicate that water is recycled. Do not operate during a drought.

Additional ways to Go Green can be found at  
<http://www.epa.gov/region3/green/index.html>

Please note that the suggested measures above are not intended to supersede more stringent federal, state or local environmental, health and safety regulations.

**Partner's Guide**  
**US EPA Mid-Atlantic Sustainability Partnership**

## **Appendix D: Sustainability Partnership Work Plan, Example Format**

The contents of a specific organization's sustainability plan will depend on the extent to which that organization may have already undertaken activities to facilitate sustainability. The following outline assumes that no prior activities or assessments have occurred. The existence of an Environmental Management System would expedite the preparation, implementation and assessment of this plan.

### **Suggested Sustainability Plan Contents**

- Organization Background
  - Facility name, location(s) and nature of operations
  - Summary of environmental regulatory requirements (RCRA, Water, Air, etc.), if any
  - Organizational chart and where sustainability and/or environmental operation exist within organizational structure
- Baseline data (TRI, emissions, waste generation, power used)
  - Raw data
  - Normalization of data for seasonal or business fluctuations
- Sustainability Assessment Plans or Results
  - Overview
  - Schedule
- Planned Sustainability Actions (if Assessment was completed)
  - Planned activities, scope and associate goals (see Tables below)
  - Schedule
  - Future activities
- Measurement protocols and frequency
- Reporting Schedule
- Communications Plan
  - Internal and External Plans
  - Events

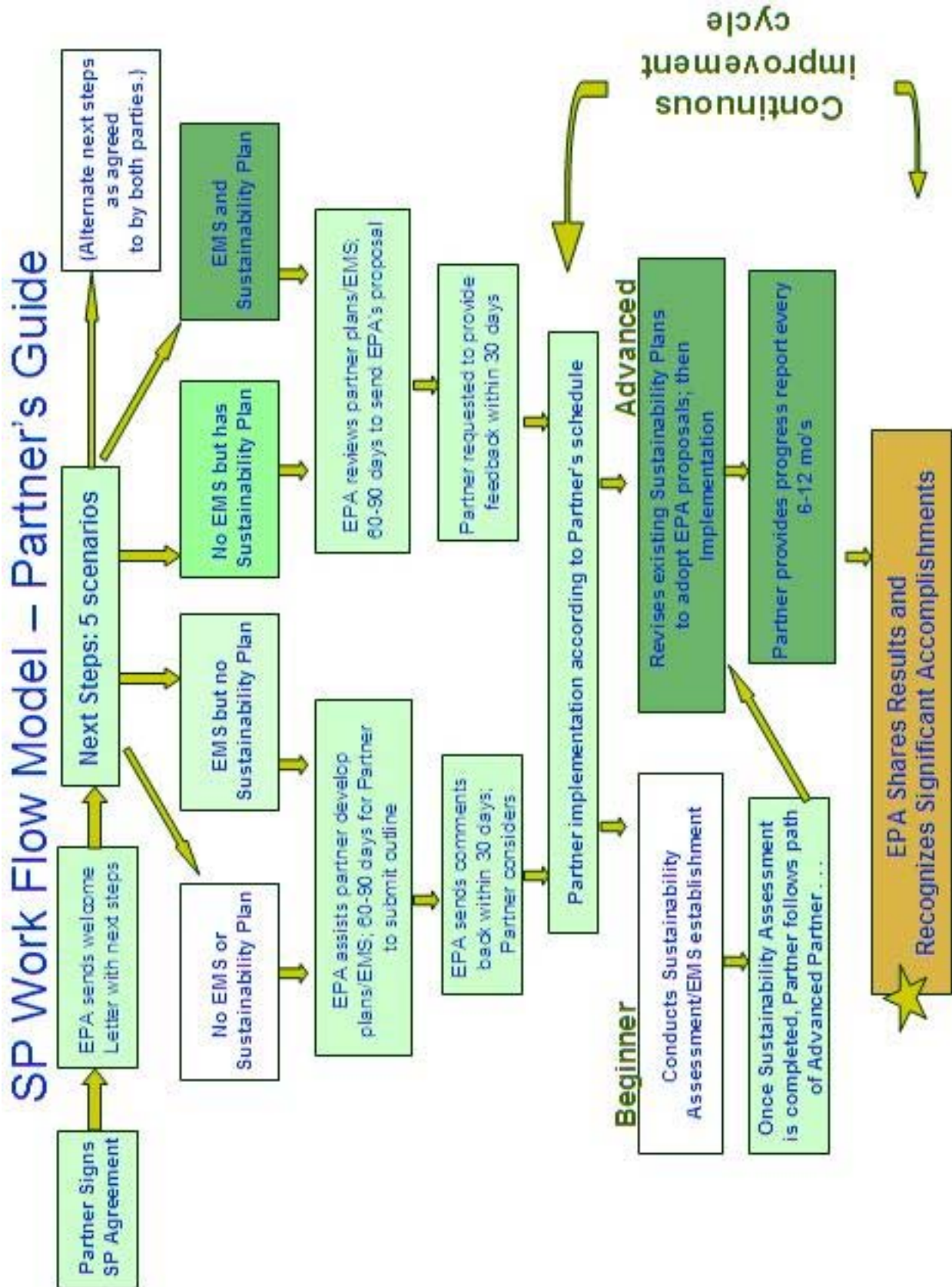


Example Goals Table, Municipal (Philadelphia Greenworks initiative)

2008 BASELINE	2015 PROJECTION	GREENWORKS TARGET	GREENWORKS INITIATIVES WILL YIELD
<b>TARGET 1: MUNICIPAL GOVERNMENT ENERGY USE</b>			
3.64 trillion Btus	4.16 trillion Btus	30% < 2008-2.54 trillion Btus	1.62 trillion Btus saved in 2015
<b>TARGET 2: CITYWIDE BUILDING ENERGY USE</b>			
99.7 trillion Btus •	103 trillion Btus	10% < 2006-89.7 trillion Btus	12.9 trillion Btus saved in 2015
<b>TARGET 3: RESIDENTIAL WEATHERIZATION</b>			
3,500 projects	28,000 projects	15% of total housing-100,000 projects	72,000 additional projects by 2015
<b>TARGET 4: ALTERNATIVE ENERGY</b>			
0.34 million MWh	1.35 million MWh	20% of electricity-2.93 MWh	1.58 million MWh in 2015
<b>TARGET 5: GREENHOUSE GAS EMISSIONS</b>			
17.2 million tCO2eq ••	15.6 million tCO2eq	20% < 1990-13.8 million tCO2eq	1.77 million tCO2eq in 2015
<b>TARGET 6: AIR QUALITY ATTAINMENT</b>			
20 "Unhealthy" AQI days	20 "Unhealthy" AQI days	2015 < 2008-2006 numbers	10 fewer "unhealthy" AQI Days in 2015
<b>TARGET 7: DIVERSION FROM LANDFILL</b>			
1.56 million tons	1.56 million tons	70% diversion rate-890,000 million tons going to landfill	0.67 million tons diverted in 2015
<b>TARGET 8: GREEN INFRASTRUCTURE</b>			
51,000 pervious acres	51,000 pervious acres	60% of total surface-54,200 pervious surfaces	3,200 additional pervious acres by 2015
<b>TARGET 9: OUTDOOR AMENITIES</b>			
10,300 green acres	10,300 green acres	75% of residents with access-10,800 green acres	500 additional green acres by 2015
<b>TARGET 10: LOCAL FOOD</b>			
230 gardens, markets	230 gardens, markets	75% of residents w/ access-316 gardens/farms/markets	86 additional gardens/farms/markets by 2015
<b>TARGET 11: TREE CANOPY</b>			
2.1 million trees	2.1 million trees	30% canopy by 2025-3.1 million trees	300,000 additional trees by 2015
<b>TARGET 12: VEHICLE MILES TRAVELED</b>			
6.40 million VMT •••	6.91 million VMT	10% < 2005-5.76 million VMT	1.15 million fewer VMT in 2015
<b>TARGET 13: STATE OF GOOD REPAIR</b>			
73% of assets in SOGR	71% of assets in SOGR	80% in 2015	13% of assets raised to SOGR by 2015
<b>TARGET 14: GREEN JOBS</b>			
14,400 green jobs •••	18,300 green jobs	Double 2005 by 2015-28,800 green jobs	10,500 additional green jobs by 2015

US EPA Mid-Atlantic Sustainability Partnership

Appendix E: SP Partnership Work Flow Model



## Appendix F: Sample Press Release

### GETTING GREENER!

Name of organization recently joined the Environmental Protection Agency Mid-Atlantic Office's voluntary Sustainability Partnership initiative. The initiative asks that we do all we can to become more sustainable, that is, use only the resources and energy needed to get the job done. Although participation in the initiative is voluntary, name of organization takes its participation very seriously. *[Insert a quote describing organization's commitment to the environment.]*"

Name of organization's sustainability goals for this year are *[Insert a brief description of goals or plans and describe how employees can help attain them. If the majority of employees are not heavily involved in your activities, you can make this section short and emphasize, below, general sustainability actions which the majority of employees can take.]*

[additional text as appropriate]

If we make changes in our daily operations and change a few habits, we can make a big difference, both to the environment and to our bottom line. Let's Get Greener!

**Partner's Guide  
US EPA Mid-Atlantic Sustainability Partnership**

**Appendix G: Sample article**

**SUSTAINABILITY AND (ORGANIZATION):  
GOOD NEWS FOR THE ENVIRONMENT**

Name of organization wants its employees and neighbors in name of town/community to know what it's doing to protect the environment and become more sustainable.

A fundamental part of name of organization's commitment to the environment includes participation in U.S. Environmental Protection Agency Mid-Atlantic Office's innovative Sustainability Partnership initiative, the region's first federal voluntary multimedia sustainability program. The Sustainability Partnership encourages organizations to become more sustainable.

As a Sustainability Partnership member, we are requested to establish new waste prevention activities, and reduce energy and resource usage. The programs we initiate as part of our participation in the Sustainability Partnership will build on the successes of our established prevention and recycling efforts. A major thrust of the Sustainability Partnership is waste prevention—actions that minimize or eliminate the generation of waste before it is created—with the goal of decreasing the amount of material that must be recycled or thrown away.

The Sustainability Partnership program has a broad and varied membership. More than 30 organizations have joined the Sustainability Partnership since January 2009, demonstrating their leadership in finding effective ways to become sustainable. The EPA initiative also services federal, state and local governments, tribes, and other non-corporate institutions.

Joining the Sustainability Partnership is another example of name of organization's continued commitment to improving our environment. For more information on our sustainability plans, contact name of person in charge of organization's The Sustainability Partnership program at phone number and/or e-mail.