

**EPA PROGRAM LINKS FOR ENVIRONMENTAL ASPECTS**  
**Prepared for the Agencywide EMS Workgroup**

Environmental Aspects	To find information on how to:	Related EPA Program	Useful Resources and Publications
Energy Consumption (electricity)	Reduce energy consumption from electrical equipment and facility operations	<p>ENERGY STAR  <a href="http://www.energystar.gov/www.energystar.gov">http://www.energystar.gov/www.energystar.gov</a></p> <p>Climate Leaders  <a href="http://www.epa.gov/climateleaders">www.epa.gov/climateleaders</a></p> <p>Laboratories for the 21<sup>st</sup> Century (Labs21)  <a href="http://www.epa.gov/labs21century/index.htm">www.epa.gov/labs21century/index.htm</a></p>	<p>For tools and resources to save energy or to evaluate the worth of reduced energy use, go to <a href="http://www.energystar.gov/index.cfm?c=business.bus_index">http://www.energystar.gov/index.cfm?c=business.bus_index</a></p> <p><i>Climate Leaders GHG Protocol Core Module Guidance for Direct and Indirect Emissions from Purchases/Sales of Electricity and Steam</i>  <a href="http://www.epa.gov/climateleaders/pdf/indirectelectricityguidance.pdf">http://www.epa.gov/climateleaders/pdf/indirectelectricityguidance.pdf</a></p> <p><i>A Design Guide for Energy-Efficient Research Labs</i> is available online or can be downloaded from <a href="http://labs21.lbl.gov/dg.html">http://labs21.lbl.gov/dg.html</a></p>
Water Consumption	Employ water conservation techniques and methods	Water Use Efficiency Program <a href="http://www.epa.gov/owm/water-efficiency/index.htm">www.epa.gov/owm/water-efficiency/index.htm</a>	Check out the Program's Web site ( <a href="http://www.epa.gov/owm/water-efficiency/index.htm">www.epa.gov/owm/water-efficiency/index.htm</a> ) for water conservation guidelines, water efficiency tips, and publication to reduce water consumption
Paper Consumption	Reduce paper consumption (e.g., double-siding, electronic filing, paperless office) or increase use of recycled content paper	WasteWise Program <a href="http://www.epa.gov/wastewise">www.epa.gov/wastewise</a> Comprehensive Procurement Guidelines <a href="http://www.epa.gov/cpg">www.epa.gov/cpg</a>	<p><i>WasteWise Update: Going Paperless with Technology</i>  <a href="http://www.epa.gov/wastewise/pubs/wwupda5.pdf">http://www.epa.gov/wastewise/pubs/wwupda5.pdf</a></p> <p>To learn more about the CPG-designated grades of recycled content paper and paperboard most frequently purchased by government agencies, go to:  <a href="http://www.epa.gov/cpg/products/paper.htm">http://www.epa.gov/cpg/products/paper.htm</a></p>

Storm Water Discharge	Limit pollutants in storm water discharges	Storm Water Program <a href="http://cfpub.epa.gov/npdes/home.cfm?program_id=6">http://cfpub.epa.gov/npdes/home.cfm?program_id=6</a>	Consult the Storm Water Web site for technical resources and publications with suggestions to reduce storm water runoff
Wastewater Generation	Ensure compliance with the requirements of the Federal Water Pollution Control Act	Office of Wastewater Management <a href="http://www.epa.gov/OWM/">www.epa.gov/OWM/</a>	Search the online topic index at <a href="http://www.epa.gov/OWM/pdprog.htm">http://www.epa.gov/OWM/pdprog.htm</a> to find answers to specific wastewater questions
Waste Management	Adopt waste reduction strategies, then measure and calculate results	WasteWise Program <a href="http://www.epa.gov/wastewise">www.epa.gov/wastewise</a> See also “Disposal of Solid Waste”	Check out Waste Wise’s <i>The Measure of Success - Calculating Waste Reduction</i> <a href="http://www.epa.gov/epaoswer/non-hw/reduce/wstewise/pubs/wwupda11.pdf">http://www.epa.gov/epaoswer/non-hw/reduce/wstewise/pubs/wwupda11.pdf</a>
Waste Generation	Reduce waste generation through life cycle analysis, pollution prevention, or reuse	WasteWise Program <a href="http://www.epa.gov/wastewise">www.epa.gov/wastewise</a> Waste Minimization Program <a href="http://www.epa.gov/wastemin">www.epa.gov/wastemin</a>	Review a list of some of the biggest cost-saving, waste reduction tips at <a href="http://www.epa.gov/epaoswer/non-hw/reduce/wstewise/wrr/cost.htm">http://www.epa.gov/epaoswer/non-hw/reduce/wstewise/wrr/cost.htm</a> Federal and regional technical assistance and advanced manufacturing resources can be found at: <a href="http://www.epa.gov/epaoswer/hazwaste/minimize/techast.htm">http://www.epa.gov/epaoswer/hazwaste/minimize/techast.htm</a>
Disposal of Solid Waste	Adopt resource management, a new strategic alternative to traditional hauling and disposal contracts	WasteWise Program <a href="http://www.epa.gov/wastewise">www.epa.gov/wastewise</a>	<i>WasteWise Resource Management: Innovative Solid Waste Contracting Methods</i> <a href="http://www.epa.gov/wastewise/wrr/rm.htm">http://www.epa.gov/wastewise/wrr/rm.htm</a> (Scroll near bottom of page) or <i>WasteWise Update Resource Management: Strategic Partnerships for Resource Efficiency</i> <a href="http://www.epa.gov/wastewise/pubs/wwupda17.pdf">http://www.epa.gov/wastewise/pubs/wwupda17.pdf</a>
Hazardous Waste Generation	Reduce generation of hazardous waste	Mixed Waste Team <a href="http://www.epa.gov/radiation/mixed-waste/mw_pg3.htm">http://www.epa.gov/radiation/mixed-waste/mw_pg3.htm</a>	The Mixed Waste Team Web site contains information (e.g., research, disposal facilities, scientific articles, regulations, and federal and state contacts) about wastes that contain both radioactively and chemically hazardous materials

Radioactive Waste Generation	Reduce generation of radioactive wastes	See “Hazardous Waste Generation”	
Nonhazardous Solid Waste Generation	Reduce generation of nonhazardous solid waste	See “Waste Generation”	
Wastewater Discharge	Limit pollutants discharged to the municipal wastewater treatment facility	See “Wastewater Generation”	
Air Emissions	Reduce or eliminate emissions from operations or facilities	Climate Leaders <a href="http://www.epa.gov/climateleaders">www.epa.gov/climateleaders</a>  Combined Heat & Power (CHP) Partnership <a href="http://www.epa.gov/chp">www.epa.gov/chp</a>	<i>Climate Leaders GHG Protocol Core Module Guidance for Direct Emissions from Stationary Combustion Sources</i> <a href="http://www.epa.gov/climateleaders/pdf/stationarycombustionguidance.pdf">http://www.epa.gov/climateleaders/pdf/stationarycombustionguidance.pdf</a>  CHP is currently developing Output-Based Emissions Guidelines.
Vehicle Exhaust Emissions	Reduce emissions from fleet and personal vehicles	Climate Leaders <a href="http://www.epa.gov/climateleaders">www.epa.gov/climateleaders</a>  Office of Transportation and Air Quality <a href="http://www.epa.gov/otaq">www.epa.gov/otaq</a>	<i>Climate Leaders GHG Protocol Core Module Guidance for Direct and Indirect Emissions from Mobile Combustion Sources</i> <a href="http://www.epa.gov/climateleaders/pdf/mobilesourceguidance.pdf">http://www.epa.gov/climateleaders/pdf/mobilesourceguidance.pdf</a>  The OTAQ Web site includes links to several voluntary programs including: Green Vehicle Guide ( <a href="http://www.epa.gov/greenvehicles/">http://www.epa.gov/greenvehicles/</a> ), Voluntary Diesel Retrofit Program ( <a href="http://www.epa.gov/otaq/retrofit/">http://www.epa.gov/otaq/retrofit/</a> ), SmartWay Transport ( <a href="http://www.epa.gov/smartway/">http://www.epa.gov/smartway/</a> ), and Commuter Choice Leadership Initiative ( <a href="http://www.commuterchoice.gov/">http://www.commuterchoice.gov/</a> ).

<p>Fugitive Air Emissions (indoor air)</p>	<p>Reduce or eliminate air pollutants (e.g., molds, VOCs, dust) to help improve indoor air quality</p>	<p>Office of Indoor Air Quality  <a href="http://www.epa.gov/iaq/index.html">http://www.epa.gov/iaq/index.html</a></p> <p>Labs21  <a href="http://www.epa.gov/labs21century/index.htm">www.epa.gov/labs21century/index.htm</a></p>	<p>Download the Indoor Air Quality Building Education and Assessment Model (I-BEAM) from <a href="http://www.epa.gov/iaq/largebdgs/ibeam_page.htm">http://www.epa.gov/iaq/largebdgs/ibeam_page.htm</a> to help diagnose and resolve air quality issues in large buildings</p> <p>Check out Labs21's <i>Environmental Performance Criteria</i> on controllability of systems  <a href="http://labs21.lbl.gov/EPC/eq6.htm">http://labs21.lbl.gov/EPC/eq6.htm</a>  <a href="http://labs21.lbl.gov/epc.html">http://labs21.lbl.gov/epc.html</a></p>
<p>Vent/Hood Air Emissions (building exhaust)</p>	<p>Use high performance low-flow or variable air volume fume hoods or improve monitoring</p>	<p>Labs21  <a href="http://www.epa.gov/labs21century/index.htm">www.epa.gov/labs21century/index.htm</a></p>	<p>Check out Labs21's <i>Environmental Performance Criteria</i> on right-sizing laboratory equipment and ventilation at <a href="http://labs21.lbl.gov/EPC/ea9.htm">http://labs21.lbl.gov/EPC/ea9.htm</a> and <a href="http://labs21.lbl.gov/EPC/eap4.htm">http://labs21.lbl.gov/EPC/eap4.htm</a>  <a href="http://labs21.lbl.gov/epc.html">http://labs21.lbl.gov/epc.html</a></p>
<p>Accidental Releases</p>	<p>Reduce or minimize environmental impacts from accidental releases</p>	<p>Labs21  <a href="http://www.epa.gov/labs21century/index.htm">www.epa.gov/labs21century/index.htm</a></p>	<p>Check out Labs21's <i>Environmental Performance Criteria</i> on safety and risk management at <a href="http://labs21.lbl.gov/EPC/ss9.htm">http://labs21.lbl.gov/EPC/ss9.htm</a></p>

Chemical Consumption	Reduce use of (and the need to store) chemicals through process changes or alternative methods (e.g., integrated pest management v. pesticides)	<p>Design for the Environment (DFE)  <a href="http://www.epa.gov/oppt/dfef/">http://www.epa.gov/oppt/dfef/</a></p> <p>Green Chemistry  <a href="http://www.epa.gov/greenchemistry/index.html">http://www.epa.gov/greenchemistry/index.html</a></p> <p>National Waste Minimization Partnership Program  <a href="http://www.epa.gov/epaoswer/hazwaste/minimize/index.htm">http://www.epa.gov/epaoswer/hazwaste/minimize/index.htm</a></p> <p>Pesticide Environmental Stewardship Program (PESP)  <a href="http://www.epa.gov/oppppd1/PESP/index.htm">http://www.epa.gov/oppppd1/PESP/index.htm</a></p>	<p>Assess alternative processes, formulations, and emerging technologies on DfE's Approaches &amp; Tools Web page at <a href="http://www.epa.gov/opptintr/dfef/tools/index.htm">http://www.epa.gov/opptintr/dfef/tools/index.htm</a></p> <p>Download the Green Chemistry Expert System (GCES), which allows users to build a green chemical process, design a green chemical, or survey the field of green chemistry from <a href="http://www.epa.gov/greenchemistry/tools.html">http://www.epa.gov/greenchemistry/tools.html</a></p> <p>To review the list of Waste Minimization Priority Chemicals (WMPCs) and accompanying fact sheets, go to: <a href="http://www.epa.gov/epaoswer/hazwaste/minimize/chemlist.htm">http://www.epa.gov/epaoswer/hazwaste/minimize/chemlist.htm</a></p> <p>Learn how to use Integrated Pest Management (IPM) instead of pesticides that can damage habitats at <a href="http://www.epa.gov/pesticides/ipm/">http://www.epa.gov/pesticides/ipm/</a></p>
Chemical Storage	Eliminate the need to store excess chemicals	See "Chemical Consumption"	
Chemical Reagent Use	Reduce use of chemical reagents	See "Chemical Consumption"	
Chemical Resources	Identify ways to use chemicals more wisely	See "Chemical Consumption"	
Chemical Disposal	Properly dispose of chemicals	Office of Solid Waste <a href="http://www.epa.gov/osw">www.epa.gov/osw</a>	<p>The <i>Managing Hazardous Wastes in Your Community</i> folder and accompanying fact sheets provides education and outreach about EPA's hazardous waste management program under the Resource Conservation and Recovery Act (RCRA)  <a href="http://www.epa.gov/epaoswer/general/managed-hw/managed-hw.htm">http://www.epa.gov/epaoswer/general/managed-hw/managed-hw.htm</a></p>

Recycling	Start or expand a recycling collection program	<p>WasteWise <a href="http://www.epa.gov/wastewise">www.epa.gov/wastewise</a></p> <p>Office of Solid Waste <a href="http://www.epa.gov/epaoswer/osw/">www.epa.gov/epaoswer/osw/</a></p>	<p><i>WasteWise Tip Sheet: How to Start or Expand a Recycling Collection Program</i> <a href="http://www.epa.gov/wastewise/pubs/howtopdf.pdf">http://www.epa.gov/wastewise/pubs/howtopdf.pdf</a></p> <p>A multitude of recycling resources are available on the OSW Web site at <a href="http://www.epa.gov/epaoswer/non-hw/muncpl/recycle.htm">http://www.epa.gov/epaoswer/non-hw/muncpl/recycle.htm</a></p>
Fuel Consumption	Reduce fuel consumption or improve fuel efficiency to use less	<p>Combined Heat &amp; Power (CHP) Partnership <a href="http://www.epa.gov/chp/index.htm">www.epa.gov/chp/index.htm</a></p>	<p>To learn more about sequential production of power (electricity or shaft work) and thermal energy from a single fuel source, go to <a href="http://www.epa.gov/chp/about_chp.htm">http://www.epa.gov/chp/about_chp.htm</a></p>
Fossil Fuel Consumption	Reduce fossil fuel consumption by switching to renewable energy sources	<p>Green Power Partnership <a href="http://www.epa.gov/greenpower">www.epa.gov/greenpower</a></p> <p>See also “Fuel Consumption”</p>	<p>Click on your state in the online <i>Green Power Locator</i> to find information about green power options available to you at <a href="http://www.epa.gov/greenpower/buyguide/index.html">http://www.epa.gov/greenpower/buyguide/index.html</a></p>
Compressed Gas	Use compressed natural gas (CNG) in industry, energy, and vehicular applications	<p>Landfill Methane Outreach Program (LMOP) <a href="http://www.epa.gov/lmop">www.epa.gov/lmop</a></p> <p>Clean Fuels Fleet <a href="http://www.epa.gov/otag/cff.htm">www.epa.gov/otag/cff.htm</a></p> <p>Alternative Fuels <a href="http://www.epa.gov/otag/consumer/fuels/altfuels/altfuels.htm">www.epa.gov/otag/consumer/fuels/altfuels/altfuels.htm</a></p>	<p>For ideas on using compressed gas, check out LMOP’s <i>Turning a Liability into an Asset: A Landfill Gas-to-Energy Project Development Handbook</i> <a href="http://www.epa.gov/landfill/pdf/handbook.pdf">http://www.epa.gov/landfill/pdf/handbook.pdf</a></p> <p>The Clean Fuels Fleet Web site includes lists of certified alternative fuel vehicles, lists of certified heavy-duty engines, and EPA regulations and guidance.</p> <p>Fact Sheet <i>Compressed Natural Gas</i> <a href="http://www.epa.gov/otag/consumer/fuels/altfuels/compressed.pdf">http://www.epa.gov/otag/consumer/fuels/altfuels/compressed.pdf</a></p>

Use of Lubricants/fluids	Evaluate reclaimed, re-refined, or biobased lubricants or fluids for use in fleet vehicles and equipment	Comprehensive Procurement Guidelines <a href="http://www.epa.gov/cpg">www.epa.gov/cpg</a>	To learn more about CPG's product specifications for re-refined lubricating fluids, go to <a href="http://www.epa.gov/cpg/products/lubricat.htm">http://www.epa.gov/cpg/products/lubricat.htm</a>
Noise Generation	Abating noise from facility or transportation operations	Noise is generally an OSHA issue	
Heat Generation	Capture and use waste heat (e.g., steam) to generate energy	Combined Heat & Power (CHP) Partnership <a href="http://www.epa.gov/chp">www.epa.gov/chp</a>	To learn more about CHP technologies, go to <a href="http://www.epa.gov/chp/chp_support_tools.htm">http://www.epa.gov/chp/chp_support_tools.htm</a>
Transfer of foreign organisms	Avoid introducing foreign organisms to non-native environments (e.g., zebra mussels)	~ Not found on EPA Web site ~	
UV Radiation	Reduce or minimize sun exposure and damage	Sunwise <a href="http://www.epa.gov/sunwise">www.epa.gov/sunwise</a>	Check out the UV Index, which predicts the next day's ultraviolet radiation levels on a 0-10+ scale, to help determine appropriate sun-protective behaviors <a href="http://www.epa.gov/sunwise/uvindex.html">http://www.epa.gov/sunwise/uvindex.html</a>
Battery Use	Recycle batteries and keep potentially harmful substances out of landfills	Office of Solid Waste <a href="http://www.epa.gov/osw">www.epa.gov/osw</a>	To view EPA's <i>Waste-Specific Guidelines and Definition of Batteries</i> under the Universal Waste Rule, go to: <a href="http://www.epa.gov/epaoswer/hazwaste/id/univwast/wasts.htm#battery">http://www.epa.gov/epaoswer/hazwaste/id/univwast/wasts.htm#battery</a>

Construction/ Demolition	Identify ways to build “green” and reduce or reuse C&D debris and materials	WasteWise Program <a href="http://www.epa.gov/wastewise">www.epa.gov/wastewise</a>  Green Buildings <a href="http://www.epa.gov/greenbuilding/">www.epa.gov/greenbuilding/</a>	<p><i>WasteWise Update: Building for the Future</i> <a href="http://www.epa.gov/wastewise/pubs/wwupda16.pdf">http://www.epa.gov/wastewise/pubs/wwupda16.pdf</a></p> <p>This Web site contains information on ways to reduce the environmental impact of buildings, or download EPA's report <i>Characterization of Building-Related Construction and Demolition Debris in the United States</i> at <a href="http://www.epa.gov/epaoswer/hazwaste/sqg/c&amp;d-rpt.pdf">http://www.epa.gov/epaoswer/hazwaste/sqg/c&amp;d-rpt.pdf</a></p>
Resource/ Material Consumption	Reduce consumption of resources or materials via product redesign, lighting, or reuse	Design for the Environment (DFE) <a href="http://www.epa.gov/oppt/dfe/">http://www.epa.gov/oppt/dfe/</a>  WasteWise Program <a href="http://www.epa.gov/wastewise">www.epa.gov/wastewise</a>	<p>DFE maintains a page on integrated environmental management systems (IEMS) that helps organizations evaluate and change consumption habits <a href="http://www.epa.gov/oppt/dfe/tools/iems.htm">http://www.epa.gov/oppt/dfe/tools/iems.htm</a></p> <p><i>WasteWise Update: Moving Toward Sustainability</i> <a href="http://www.epa.gov/wastewise/pubs/wwupda13.pdf">http://www.epa.gov/wastewise/pubs/wwupda13.pdf</a></p>
Land use	Prevent, assess, safely clean up, and sustainably reuse abandoned industrial properties	Brownfields <a href="http://www.epa.gov/brownfields/">www.epa.gov/brownfields/</a>  See also “Habitat Damage” and “Construction & Demolition”	<p>Review an extensive list of Brownfields topics at <a href="http://www.epa.gov/brownfields/topics.htm">http://www.epa.gov/brownfields/topics.htm</a></p>
Greenhouse Gases (GHG)	Reduce or eliminate GHG emissions from operations or facilities	Global Warming <a href="http://yosemite.epa.gov/oar/globalwarming.nsf/content/index.html">http://yosemite.epa.gov/oar/globalwarming.nsf/content/index.html</a>  WasteWise Program <a href="http://www.epa.gov/wastewise">www.epa.gov/wastewise</a>  See also “Air Emissions” and “Ozone Depletion”	<p>The Global Warming Web site contains an array of tools to help measure and calculate GHG emissions associated with energy consumption <a href="http://yosemite.epa.gov/oar/globalwarming.nsf/content/ResourceCenterTools.html">http://yosemite.epa.gov/oar/globalwarming.nsf/content/ResourceCenterTools.html</a></p> <p><i>WasteWise Update: Global Warming...Is a Waste</i> <a href="http://www.epa.gov/wastewise/pubs/wwupdate18.pdf">http://www.epa.gov/wastewise/pubs/wwupdate18.pdf</a></p>



Ozone Depletion	Reduce use and emissions of substances that are harmful to the ozone layer	Ozone Depletion <a href="http://www.epa.gov/ozone/">www.epa.gov/ozone/</a>	The Significant New Alternatives Policy (SNAP) Program Web site has guidance available for various sources of ozone-depleting substances (e.g., air conditioning, cleaning solvents) at <a href="http://www.epa.gov/ozone/snap/index.html">http://www.epa.gov/ozone/snap/index.html</a>
Consumption of Disposable Supplies and Equipment	Switch to durable products to reduce waste and conserve resources	WasteWise Program <a href="http://www.epa.gov/wastewise">www.epa.gov/wastewise</a>	Check out waste prevention tips and cost-savings case studies from other organizations at <a href="http://www.epa.gov/epaoswer/non-hw/reduce/wstewise/wrr/prevent.htm">http://www.epa.gov/epaoswer/non-hw/reduce/wstewise/wrr/prevent.htm</a>
Habitat Damage	Reduce environmental impacts on fragile habitats or ecological systems (e.g., wetlands)	Watershed Academy <a href="http://www.epa.gov/owow/watershed/wacademy/">www.epa.gov/owow/watershed/wacademy/</a> Pesticide Environmental Stewardship Program (PESP) <a href="http://www.epa.gov/opppppd1/PESP/index.htm">http://www.epa.gov/opppppd1/PESP/index.htm</a>	Check out the Academy's <i>8 Tools of Watershed Protection in Developing Areas</i> at <a href="http://www.epa.gov/watertrain/protection/">http://www.epa.gov/watertrain/protection/</a>  Learn how to use Integrated Pest Management (IPM) instead of pesticides that can damage habitats at <a href="http://www.epa.gov/pesticides/ipm/">http://www.epa.gov/pesticides/ipm/</a>
Purchasing office furniture and equipment	Identify and evaluate energy-efficient office equipment and environmentally friendly office furniture	ENERGY STAR <a href="http://www.energystar.gov">www.energystar.gov</a> Environmentally Preferable Purchasing <a href="http://www.epa.gov/opptintr/epp/index.htm">http://www.epa.gov/opptintr/epp/index.htm</a>	To find ENERGY STAR-designated office equipment or products, go to <a href="http://www.energystar.gov/index.cfm?c=products.pr_index">http://www.energystar.gov/index.cfm?c=products.pr_index</a>  A number of Web-based tools have been developed by EPP to assist federal purchasers in putting EPP into practice: <a href="http://www.epa.gov/opptintr/epp/tools/toolsuite.htm">http://www.epa.gov/opptintr/epp/tools/toolsuite.htm</a> See also <i>WasteWise Update: Environmentally Preferable Purchasing</i> <a href="http://www.epa.gov/wastewise/pubs/wwupda15.pdf">http://www.epa.gov/wastewise/pubs/wwupda15.pdf</a>
		Comprehensive Procurement Guidelines <a href="http://www.epa.gov/cpg">www.epa.gov/cpg</a>	CPG guidelines for office furniture are currently under development so check back for more information.