



Guidelines for Buying Environmentally Preferable Products

Introduction

This Guide lists over 100 commercial products and services and the environmental attributes to consider when purchasing or specifying them. The Guide was developed to assist Alameda County businesses and public agencies procure environmentally preferable products (EPP).

Environmental attributes of products may include the product's ability to be:

- reusable,
- less toxic,
- energy-efficient,
- water-conserving,
- remanufactured,
- rechargeable,
- recyclable or
- more durable.

Product attributes may also include:

- reduced packaging or
- a product made from bio-based or
- recycled materials.

Defining what is “green” is complex and takes time to learn, so these Guidelines aim to simplify the process. Listed by product category, you will find environmental standards and/or guidelines which can be incorporated into purchasing requirements. Additional resources are also provided.

Several U.S. and international organizations and agencies have developed highly acclaimed environmental guidelines and standards. For instance, the U.S. Environmental Protection Agency (EPA) has established Comprehensive Procurement Guidelines (CPG) that recommend minimum recycled content levels for dozens of products. The U.S. Department of Agriculture provides guidance on purchasing bio-based products. The EPA's ENERGY STAR program has more than 35 product categories, each with an ENERGY STAR label indicating these products use less energy than competing products and reduce both energy costs and environmental impacts. Certification organizations, such as Green Seal (GS) and Scientific Certification Systems (SCS), provide third party certification for green marketing claims. Outside of the United States, there are several ecolabeling programs, including programs in Canada, Japan, Germany and Denmark.

Environmental standards and guidelines are a useful tool for purchasers. The U.S. EPA has used them to identify and increase their purchase of environmental preferable office supplies. Federal agencies, such as the Department of Energy, NASA and the National Park Service, have successfully used environmental standards on purchases to meet laws requiring federal agencies to give preference to environmentally preferable products and services.

Organizations interested in incorporating environmental attributes into purchasing practices, as others have done, can use this resource to help get started. First, identify and prioritize a few products appropriate for your organization. Include the standards and/or specifications provided in this guide in your purchasing language. In some cases, additional product resources are also provided.

For questions or assistance:

- *Local governments in Alameda County can contact Debra Kaufman <dkaufman@stopwaste.org> or Rachel Balsley <rbalsley@stopwaste.org> for information about technical and financial environmental purchasing assistance. Also see www.StopWaste.Org/EPP.*
- *Alameda County businesses can contact Rachel Balsley <rbalsley@stopwaste.org> for information about the StopWaste Partnership for technical assistance and funding. Also see www.StopWaste.Org/Partnership.*
- *Call toll-free for assistance at (877) STOPWASTE (786-7927).*

Disclaimer

The information in this guide is provided as a public service for public agency and business purchasers who are interested in buying environmentally preferable products. In all available cases, third party standards have been used to provide product guidelines and information, but have not been independently verified by StopWaste.Org. Examples of acceptable third parties include, but are not limited to: the U.S. Environmental Protection Agency, the State of California and other public entities; Green Seal; Forest Stewardship Council; Energy Star; Scientific Certification Systems; and the U.S. Green Building Council.

Listing in this Guide is not a substitute for the exercise of sound judgment in particular circumstances and is not intended as a recommendation or endorsement for particular products or processes by StopWaste.Org. StopWaste.Org is the Alameda County Waste Management Authority and Source Reduction and Recycling Board operating as one public agency.

This Guide was prepared in January 2006, and updated in August 2009 by Kies Strategies and EPE Consulting on behalf of StopWaste.Org.

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Guidelines for Buying Environmentally Preferable Products: Paper Office Supplies

Product Category & Products	Environmental Attributes to Consider When Purchasing	Green Standard/Guidelines	Notes/Further Information
Paper Office Supplies – Cut and Continuous Paper			
Copy paper	<p>EPA: Minimum 30% post-consumer content (the percent of the product containing materials once used by consumers and recycled into new products)</p> <p>Green Seal adds: And/or free of chlorine or any derivatives as a bleaching agent (such as paper that is processed chlorine-free)</p>	<p>U.S. Environmental Protection Agency (EPA's Comprehensive Procurement Guidelines (CPG), www.epa.gov/epawaste/conserves/tools/cpg/products/printing.htm)</p> <p>Green Seal's Printing & Writing Paper Standard, GS-07, www.greenseal.org/certification/standards/printing_writing_paper_GS_07.pdf</p>	<p>StopWaste.Org's "Environmentally Preferable Paper Office Products" Fact Sheet, www.StopWaste.Org/EPP</p> <p>Green Seal's Choose Green Report, www.greenseal.org/resources/reports/CGR=P&W2.pdf</p> <p>Chlorine Free Products Association, www.chlorinefreeproducts.org</p>
Copy paper - Colored	Minimum 30% post-consumer content	EPA's CPG, www.epa.gov/epawaste/conserves/tools/cpg/products/printing.htm	StopWaste.Org's "Environmentally Preferable Paper Office Products" Fact Sheet, www.StopWaste.Org/EPP
Paper Office Supplies - Printing and Writing Paper			
Reprographic	<p>EPA: Minimum 30% postconsumer content;</p> <p>Green Seal adds: And/or free of chlorine or any derivatives as a bleaching agent (such as paper that is processed chlorine-free)</p>	<p>EPA's CPG, www.epa.gov/epawaste/conserves/tools/cpg/products/printing.htm</p> <p>Green Seal's Printing & Writing Paper Standard, GS-07, www.greenseal.org/certification/standards/printing_writing_paper_GS_07.pdf</p>	Business paper such as bond, copy, mimeo, and duplicator.
Offset			Used for book publishing, direct mail, technical documents, manuals.
Tablet			Office paper such as note pads, notebooks.
Forms bond			Bond type papers such as continuous, cash register, sales book, computer printout.
Envelopes, Wove			
Envelopes, Kraft, white and colored (including manila)	<p>EPA: Minimum 10-20% postconsumer content</p> <p>Green Seal: Minimum 30% postconsumer content</p>	<p>EPA's CPG, www.epa.gov/epawaste/conserves/tools/cpg/products/printing.htm</p> <p>Green Seal's Choose Green Report: Office Supplies, www.greenseal.org/resources/reports/CGR_officesupplies.pdf</p>	
Envelopes, Kraft, unbleached	EPA: Minimum 10% postconsumer content		

Guidelines for Buying Environmentally Preferable Products: Paper Office Supplies

Product Category & Products	Environmental Attributes to Consider When Purchasing	Green Standard/Guidelines	Notes/Further Information
Cotton fiber	EPA: Minimum 30% postconsumer content	EPA's CPG, www.epa.gov/epawaste/conserva/tools/cpg/products/printing.htm	High quality papers for stationery, invitations
Text and cover	Green Seal adds: And/or free of chlorine or any derivatives as a bleaching agent (such as paper that is processed chlorine-free)	Green Seal's Printing & Writing Standard, GS-07, www.greenseal.org/certification/standards/printing_writing_paper_GS_07.pdf	Premium paper used for cover stock, books, and stationery and matching envelopes
Supercalendered	Minimum 10% postconsumer content	EPA CPG, www.epa.gov/epawaste/conserva/tools/cpg/products/printing.htm	Groundwood paper use for advertising and mail order inserts, catalogs and some magazines
Machine finished Groundwood			Groundwood paper used in magazines and catalogs
Papetries	Minimum 30% postconsumer		Used for invitations and greeting cards
Check safety	Minimum 10% postconsumer		Used in the manufacture of commercial and government checks
Coated	EPA: Minimum 10% postconsumer content Green Seal includes the above and adds: Coated printing paper shall not contain lead, cadmium, mercury, and hexavalent chromium, and the coating shall not be formulated with free formaldehyde. Neither chlorine nor any of its derivatives (such as hypochlorite and chlorine dioxide) shall be used in the bleaching agent if bleaching is employed in the manufacture of the product. Shall not be deinked using a solvent containing chlorine.	EPA's CPG, www.epa.gov/epawaste/conserva/tools/cpg/products/printing.htm Green Seal's Coated Paper Standard, GS-10, www.greenseal.org/certification/standards/coated_printing_paper_GS_10.cfm	Used for annual reports, posters, magazines
Carbonless	EPA and Green Seal: Minimum 30% postconsumer content	EPA's CPG, www.epa.gov/epawaste/conserva/tools/cpg/products/printing.htm Green Seal's Choose Green Report: Office Supplies, www.greenseal.org/resources/reports/CGR_officesupplies.pdf	
File folders			Manila or colored
Dyed filing products			Used for multicolored hanging folders and wallet files
Index and card stock			Used for index cards and postcards
Pressboard	EPA: Minimum 20% postconsumer content		High -strength paperboard used in binders and report covers
Tags and tickets			Used for toll and lottery tickets

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Paper Office Supplies**

Product Category & Products	Environmental Attributes to Consider When Purchasing	Green Standard/Guidelines	Notes/Further Information
Self-stick notes	EPA and Green Seal: Minimum 30% postconsumer content	EPA's CPG, www.epa.gov/epawaste/conserves/tools/cpg/products/printing.htm Green Seal's Choose Green Report: Office Supplies, www.greenseal.org/resources/reports/CGR_officesupplies.pdf	
Paper Office Supplies - Miscellaneous Papers			
Tray Liners	50-75% postconsumer content	EPA's CPG, www.epa.gov/epawaste/conserves/tools/cpg/products/misc.htm	
Newsprint	20-85% postconsumer content	EPA's CPG, www.epa.gov/epawaste/conserves/tools/cpg/products/newspnt.htm	
Paper Office Supplies - Commercial/Sanitary Industrial Tissue			
Paper Towels	EPA: Minimum 40-60% postconsumer content; Green Seal adds: unbleached or processed chlorine free (PCF)	EPA's CPG, www.epa.gov/epawaste/conserves/tools/cpg/products/tissue.htm Green Seal's Paper Towel Standard, GS-09, www.greenseal.org/certification/standards/paper_towels-napkins_GS_09.pdf	Green Seal's Choose Green Report, www.greenseal.org/resources/reports/GR_tissuetowel.pdf
Toilet Tissue	EPA: Minimum 20-60% postconsumer content; Green Seal adds: unbleached or processed chlorine free (PCF)	EPA's CPG, www.epa.gov/epawaste/conserves/tools/cpg/products/tissue.htm ; Green Seal's Tissue Paper Standard, GS-01, www.greenseal.org/certification/standards/tissue_paper_GS_01.cfm	StopWaste.Org's "Environmentally Preferable Janitorial Paper Supplies" Fact Sheet, www.StopWaste.Org/EPP
Facial Tissue	EPA: Minimum 10-15% postconsumer content; Green Seal adds: unbleached or processed chlorine-free (PCF)	EPA's CPG, www.epa.gov/epawaste/conserves/tools/cpg/products/tissue.htm ; Green Seal's Tissue Paper Standard, GS-01, www.greenseal.org/certification/standards/tissue_paper_GS_01.cfm	Green Seal's Choose Green Report, www.greenseal.org/resources/reports/GR_tissuetowel.pdf StopWaste.Org's "Environmentally Preferable Janitorial Paper Supplies" Fact Sheet, www.StopWaste.Org/EPP
Seat Covers	Minimum 40% postconsumer content	U.S. Department of Interior (DOI) specifications	

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Paper napkins	EPA: Minimum 30-60% postconsumer content; Green Seal: 40% postconsumer content or unbleached or processed chlorine-free (PCF)	EPA's CPG, www.epa.gov/epawaste/conserves/tools/cpg/products/tissue.htm Green Seal's Paper Towel Standard, GS-09, www.greenseal.org/certification/standards/paper_towels-napkins_GS_09.pdf	StopWaste.Org's "Environmentally Preferable Janitorial Paper Products" Fact Sheet, www.StopWaste.Org/EPP
General purpose industrial wipers	Minimum 40% postconsumer content	EPA's CPG, www.epa.gov/epawaste/conserves/tools/cpg/products/tissue.htm	
Paper Office Supplies - Paperboard and Packaging Products			
Corrugated containers	<300psi: 25-50% postconsumer, 300 psi: 25-30% postconsumer content	EPA's CPG, www.epa.gov/epawaste/conserves/tools/cpg/products/paperbrd.htm	
Solid fiber boxes	40% postconsumer content		
Folding cartons	45-80% postconsumer content		
Industrial paperboard	45-100% postconsumer content		
Miscellaneous	75-100% postconsumer content		
Padded mailers	5-15% postconsumer content		
Carrierboard	10-15% postconsumer content		
Brown papers	5-20% postconsumer content		

**Guidelines for Buying Environmentally Preferable Products:
Nonpaper Office Supplies**

Product Category & Products	Environmental Attributes to Consider When Purchasing	Green Standard/Guidelines	Notes/Further Information
Nonpaper Office Supplies			
Toner Cartridges	<p>Green Seal: All remanufactured cartridges tested by manufacturer, parts removed from spent cartridges, recycled content in replacement parts;</p> <p>EPA recommends agencies procure remanufactured toner cartridges or new toner cartridges with recovered materials (includes both pre-consumer and post-consumer content).</p>	<p>Green Seal's Choose Green Report: Office Supplies, www.greenseal.org/resources/reports/CGR_officesupplies.pdf</p> <p>EPA's CPG for Toner Cartridges, www.epa.gov/epawaste/conserves/tools/cpg/products/toner.htm</p>	<p>StopWaste.Org's "Remanufactured Toner Cartridges in Alameda County" Fact Sheet, www.StopWaste.Org/EPP</p>
Ribbons (Printer)	Procure printer ribbons reinking or reloading services or procure reinked or reloaded printer ribbons	EPA's CPG, www.epa.gov/epawaste/conserves/tools/cpg/products/ribbons.htm	
Diskettes, Floppy	Reuse old disks. A "full" or "unconditional" formatting erases all old data and makes the disk fully usable again; recycled floppy disks are available	Green Seal's Choose Green Report: Office Supplies, www.greenseal.org/resources/reports/CGR_officesupplies.pdf	
CD's	Reuse for data storage only if they are rewritable. Scratched disks may be refinished. No need for plastic jewel cases when purchasing new ones.		
Plastic Desktop Accessories (desk organizers, sorters, trays, and memo, note and pencil holders)	<p>EPA: 25-80% postconsumer content;</p> <p>Consider alternatives to vinyl (PVC) products</p>	EPA's CPG, www.epa.gov/epawaste/conserves/tools/cpg/products/desktop.htm	<p>Sustainable Hospitals: Reducing PVC in the Office, www.sustainablehospitals.org/HTMLSrc/IP_factsheet_contents.html#epp</p> <p>Alternatives to PVC in Office Supplies, www.noharm.org/details.cfm?ID=873&type=document</p>
Plastic Envelopes	Minimum 25% postconsumer content	EPA's CPG, www.epa.gov/epawaste/conserves/tools/cpg/products/envelope.htm	
Binders, 3-ring, Plastic covered paperboard	<p>Green Seal: <i>Plastic covered paperboard</i> (typically vinyl): minimum 75% postconsumer in paperboard.</p> <p>EPA: 20% postconsumer in pressboard</p> <p>Consider alternatives to vinyl (PVC)</p>	<p>Green Seal's Choose Green Report: Office Supplies, www.greenseal.org/resources/reports/CGR_officesupplies.pdf</p> <p>EPA's CPG for Binders, www.epa.gov/epawaste/conserves/tools/cpg/products/binders.htm</p>	<p>Sustainable Hospitals: Reducing PVC in the Office, www.sustainablehospitals.org/HTMLSrc/IP_factsheet_contents.html#epp</p> <p>Alternatives to PVC in Office Supplies, www.noharm.org/details.cfm?ID=873&type=document</p>

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Binders, Paper covered paperboard	Green Seal: 75% postconsumer content and bleached without elemental chlorine, preferably chlorine-free or unbleached EPA: 75-100% postconsumer	Green Seal's Choose Green Report: Office Supplies, www.greenseal.org/resources/reports/CGR_officesupplies.pdf EPA's CPG for Binders, www.epa.gov/epawaste/conservation/tools/cpg/products/binders.htm	
Binders, Cardboard	Green Seal: 100% postconsumer content and chlorine-free EPA: 20% postconsumer in pressboard		
Binders, Solid Plastic	Green Seal: HDPE-90% postconsumer, PET-100% postconsumer, other plastics-80% postconsumer EPA: HDPE-90% postconsumer, PE-30-50% postconsumer, PET-100% postconsumer		
Office Waste & Recycling Receptacles	Plastic: 20-100% postconsumer content Paper: 25-80% depending on type (corrugated, solid fiber, paperboard) Steel: commonly recycled	EPA's CPG, www.epa.gov/epawaste/conservation/tools/cpg/products/office.htm	StopWaste.Org's "Environmentally Preferable Nonpaper Office Products" Fact Sheet, www.StopWaste.Org/EPP
Clipboards	Green Seal: Minimum 50% postconsumer content	Green's Choose Green Report: Office Supplies, www.greenseal.org/resources/reports/CGR_officesupplies.pdf	
Pens and pencils	Green Seal: Choose refillable. If single-use, look for 50% postconsumer or biodegradable		
Paper Clips	Consider metal or plastic paper clips instead of vinyl (PVC) coated paper clips		Sustainable Hospitals: Reducing PVC in the Office, www.sustainablehospitals.org/HTMLSrc/IP_factsheet_contents.html#epp Alternatives to PVC in Office Supplies, www.noharm.org/details.cfm?ID=873&type=document
Report Covers	Consider polypropylene or pressboard covers instead of vinyl (PVC) covers		
Sheet Protectors	Consider polypropylene instead of vinyl (PVC) sheet covers		
Plastic Presentation Folders (HDPE)	90% postconsumer content	EPA's CPG, www.epa.gov/epawaste/conservation/tools/cpg/products/office.htm	
Labels	30% postconsumer	Green Seal's Choose Green Report: Office Supplies, www.greenseal.org/resources/reports/CGR_officesupplies.pdf	

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Deskside Recycling Boxes	Corrugated paper: 25-50% postconsumer Solid fiber boxes: 40% postconsumer Industrial paperboard: 40-80% postconsumer	EPA's CPG, www.epa.gov/epawaste/conserves/tools/cpg/products/office.htm	
Highlighters and markers	Water base, certified AP nontoxic ("approved product" by Arts and Creative Materials Institute, ACMI), conforming to ASTM D-4236. Choose refillable if available. Dry erase or permanent markers: choose "low odor."	Green Seal's Choose Green Report: Office Supplies, www.greenseal.org/resources/reports/CGR_officesupplies.pdf	
Batteries	Choose rechargeable (where applicable), longer lasting; request suppliers take-back spent rechargeable batteries for recycling.	INFORM, www.informinc.org/fact_CWPbattery.php	StopWaste.Org Fact Sheet, Using Rechargeable Batteries, www.StopWaste.org/EPP For recycling information, visit the Rechargeable Battery Recycling Corporation at www.rbc.org/ California law requires all batteries be handled as universal waste and not disposed in landfill.
Battery Rechargers	Purchase rechargers that can recharge several types of batteries	INFORM, www.informinc.org/fact_CWPbattery.php	
Correction fluid	Ozone-safe (no harmful solvents), water-based, certified AP non-toxic	Green Seal's Choose Green Report: Office Supplies, www.greenseal.org/resources/reports/CGR_officesupplies.pdf	
Transparencies	Minimum 25% post-consumer content	Green Seal's Choose Green Report: Office Supplies, www.greenseal.org/resources/reports/CGR_officesupplies.pdf	

**Guidelines for Buying Environmentally Preferable Products:
Office Equipment**

Product Category & Products	Environmental Attributes to Consider When Purchasing	Green Standard/Guidelines	Notes/Further Information
Office Equipment			
Copiers	<p>Energy Star-qualified</p> <p>State of CA Contract: Default to duplex (double-sided) copying; compatible with recycled content products (i.e., paper, remanufactured toner cartridges); uses an organic photoreceptor; does not emit ozone, dust, styrene in excess of stated amounts; no PBBs (polybrominated biphenyls) or PBDEs (polybrominated diphenyl ethers); design for remanufacturing and reuse of parts; minimal packaging and/or packaging take-back; vendor takes back at end of life for reuse/recycling</p> <p>EcoLogo: Be safe to use; Be accompanied by detailed information describing ambient ozone generation, noise emissions, actual recovery time from energy-saver mode and changing ozone filter; Be energy efficient; Not emit ozone at a concentration greater than 0.04 mg/m³; Not emit dust at a concentration greater than 0.25 mg/m³; Be equipped with a power saving device and energy saving device; Be equipped with automatic duplexing capabilities and be programmable by the end-user such that the duplexing mode may be set as the default mode, if capable of producing more than 44 copies per minute; Not emit VOCs at a concentration greater than 0.170 mg/m³, if using wet-process technology; Not be manufactured with CFCs; and be compatible with recycled paper, and remanufactured printed cartridges.</p>	<p>EcoLogo, CCD-035, www.ecologo.org/en/seeourcriteria/details.asp?ccd_id=260</p> <p>ENERGY STAR, www.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup&pgw_code=CP</p> <p>State of California Department of General Services "Copier and Associated Services" Contract #1S-05-36-20 incorporates EPA's "green attributes," www.pd.dgs.ca.gov/StratSourcing/SpecsDigitalCopiers.htm</p>	<p>EPA's "Greening Your Purchases of Copier," www.epa.gov/oppt/epp/pubs/copiers.htm</p> <p>City of Seattle vendor questionnaire, www.seattle.gov/environment/Documents/VendorQuestionnaire.pdf</p> <p>State of CA EPP Best Practices Manual on copiers, www.green.ca.gov/EPP/OfficeMach/copiers.htm#specs</p>
Printers	<p>Double-sided printing option; ENERGY STAR; compatible with recycled content products</p>	<p>ENERGY STAR, www.energystar.gov</p>	<p>Blue Angel is a German certification for eco-friendly products and has progressive environmental labels for electronics. Some certified printers may be available in the US, www.blauer-engel.de/en/products_brands/search_products/produkttyp.php?id=331</p> <p>Federal Electronics Challenge, www.federalelectronicschallenge.net/resources/docs/topenv.pdf</p>

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Product Category & Products	Environmental Attributes to Consider When Purchasing	Green Standard/Guidelines	Notes/Further Information
Laser Printers	ENERGY STAR-qualified EcoLogo certified (CCD-35 for Copiers, Printers, Faxes and Multi-function Devices)	ENERGY STAR, www.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup&pgw_code=CX EcoLogo certified (CCD-35 for Copiers, Printers, Faxes and Multi-function Devices), www.ecologo.org/en/seeourcriteria/details.asp?ccd_id=408	California's EPP Best Practices Manual states that Nordic Swan (Denmark, Norway, Iceland, Sweden, Finland), and Eco Mark (Japan) have environmental criteria for printers, www.green.ca.gov/EPP/OfficeMach/laser.htm#specs Federal Electronics Challenge, www.federalelectronicchallenge.net/resources/docs/topenv.pdf
Printing Services	Service provider becomes a certified Bay Area Green Business; suggested criteria may include: service uses recycled paper, soy-based inks, recycles, and supports using less paper and packaging when possible	Bay Area Green Business, www.greenbiz.ca.gov	
Computers, Monitors and Laptops	Computers, Monitors and Laptops that are EPEAT-registered. EPEAT (the Electronic Product Environmental Assessment Tool) contains 22 mandatory criteria and 33 optional criteria in 8 categories.	For a list of EPEAT-registered products, visit www.epeat.net .	The Federal government requires 95% of all applicable products be EPEAT-registered.
Digital Duplicators	ENERGY STAR-qualified	ENERGY STAR, www.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup&pgw_code=DD	Responsible Purchasing Office Electronics Guide references standards and specifications (membership accessible): www.responsiblepurchasing.org/purchasing_guides/office_electronics/index.php Federal Electronics Challenge, www.federalelectronicchallenge.net/resources/docs/topenv.pdf
Fax Machines	ENERGY STAR-qualified	ENERGY STAR, www.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup&pgw_code=CX	Federal Electronics Challenge, www.federalelectronicchallenge.net/resources/docs/topenv.pdf

**Guidelines for Buying Environmentally Preferable Products:
Building Maintenance**

Product Category & Products	Environmental Attributes to Consider When Purchasing	Green Standard/Guidelines	Notes/Further Information
Building & Facility Maintenance			
Graffiti Removers	Based on the "Graffiti Remover and Field Test Report," some of the screening criteria that can be used to evaluate graffiti removers include: product does not contain ingredients listed in Prop 65, Chemicals Known to the State of California to Cause Cancer or Reproductive Toxicity; product does not contain PBTs (persistent, bioaccumulative toxins) as determined by EPA's PBT Profiler; product does not have any ingredients that rate above 20 on the Indiana Relative Chemical Hazard Score (IRCHS); product is not an aerosol; product does not contain dimethyl sulfoxide (DMSO).		"Graffiti Remover and Field Test Report: The Search for Safer Products (2003)," www.responsiblepurchasing.org/publications/Graffiti_Report.pdf
Graffiti and Grease Removers	USDA BioPreferred: Industrial solvent products formulated to remove automotive, industrial, or kitchen soils and oils, including grease, paint, and other coatings, from hard surfaces - 34% minimum biobased content.	USDA BioPreferred Program, www.biopreferred.gov	
Urinals	Install High Efficiency Urinals (HEUs) that flush at 0.5 gpf (gallons per flush) or non-water urinals.	The California Urban Water Conservation Council, www.cuwcc.org/products/high-efficiency-urinals.aspx GreenPoint Rated uses this threshold.	The HEU is defined as a fixture that flushes at 0.5-gpf/1.9-lpf or less, a threshold that is 50 percent of the current U.S. national standard (maximum)
Toilets	EPA Water Sense: Use 20% less water than the current Federal standard; this translates to 1.28 gpf (gallons per flush) toilets	EPA WaterSense, www.epa.gov/watersense/pubs/toilets.htm for a list of qualified toilets	For more information on High Efficiency Toilets (HETs), visit www.cuwcc.org . Updates to the MaP Testing of popular toilet models can be found at www.cuwcc.org/MaPTesting.aspx
Faucets	EPA Water Sense: Faucets must be 30%+ more efficient than federal minimum; this translates to 1.5 gpm (gallons per minute) faucets (except kitchen sinks or maintenance closet sinks)	EPA Water Sense, www.epa.gov/watersense	

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Building Maintenance**

Product Category & Products	Environmental Attributes to Consider When Purchasing	Green Standard/Guidelines	Notes/Further Information
<p>Lighting Fixtures, Bulbs, Florescent Tubes</p>	<p>Use high efficiency lamps (T8 or T5), electronic and low-power ballasts, and low mercury lamps.</p> <p>State of CA: All CFLs shall contain no more than 5 milligrams mercury; All self-ballasted CFLs shall be ENERGY STAR qualified; All fluorescent lamps offered shall be compliant with the U.S. EPA Toxicity Characteristic Leaching Procedure (TCLP). Minimum lamp life requirements; recycling collection requirements.</p> <p>European Union, Restriction on Hazardous Substances Directive, 2003 (RoHS): CFLs containing more than five milligrams of mercury cannot be sold throughout Europe.</p>	<p>ENERGY STAR, www.energystar.gov/index.cfm?c=lighting.pr_lighting</p> <p>Green Seal GS-5: Energy Efficient Compact Fluorescent Lamps, www.greenseal.org/certification/standards/energy_efficient_lighting_compact_fluorescent_lights_GS_05.pdf (no certified products at this time)</p> <p>EcoLogo CCD-014: Energy Efficient Lamps or CFLs, www.ecologo.org/en/seeourcriteria/details.asp?ccd_id=239</p> <p>US Green Building Council's LEED standards reference energy efficiency, mercury reduction and daylighting, www.usgbc.org</p> <p>State of CA Lamp Contract: www.pd.dgs.ca.gov/contracts/62-31.htm</p>	<p>For CFLs, use ENERGY STAR Choose A Light Guide, www.energystar.gov/index.cfm?c=cfls.pr_cfls</p> <p>City of San Francisco Approved Lighting Products List, www.sfenvironment.org/our_programs/interests.html?ssi=9&ti=22&ii=154</p> <p>Responsible Purchasing Lighting Guide references standards and specifications (membership accessible): www.responsiblepurchasing.org/purchasing_guides/lighting/index.php</p> <p>For a list of lamp recyclers, visit www.almr.org, www.earth911.com, or EPA's website www.epa.gov/epawaste/hazard/wastetypes/universal/lamps/index.htm</p> <p>For a local green building materials database, visit Build It Green, www.builditgreen.org/guide/</p>
<p>Clothes Washers</p>	<p>Use ENERGY STAR qualified appliance. Most full-sized ENERGY STAR qualified washers use 18-25 gallons of water per load, compared to the 40 gallons used by a standard machine.</p> <p>CEE: Tiers 1-3 have a Modified Energy Factor (MEF) between 1.8 - 2.2 and a Water Factor (WF) of 4.5 - 7.5. (stronger guidelines than Energy Star)</p> <p>Residential: Use ENERGY STAR, horizontal axis washers.</p>	<p>ENERGY STAR, www.energystar.gov/index.cfm?c=clotheswash.pr_clothes_washers</p> <p>Consortium for Energy Efficiency, Inc., www.cee1.org/com/cwsh/comwash_specs.pdf</p>	<p>EBMUD's (East Bay Municipal Utility District) Commercial Washer Rebate Program, www.ebmud.com/conserving_&_recycling/non_residential/clotheswasher_rebate/default.htm</p>
<p>Dishwashers</p>	<p>Use ENERGY STAR qualified appliances.</p> <p>CEE: Tier 2: Dishwasher uses no more than 6.5 gallons/cycle</p>	<p>ENERGY STAR, www.energystar.gov/index.cfm?c=dishwash.pr_crit_dishwashers</p> <p>Consortium for Energy Efficiency (CEE), www.cee1.org/com/com-kit/files/DishwasherSpecificationFINAL20080626.pdf</p>	<p>To find models that use less than 6.5 gallons (24.6 liters on normal setting) of water per cycle in their normal setting, the Energy Star Canada website provides water factor values for Energy Star qualified dishwashers, www.oee.nrcan.gc.ca/residential/business/manufacturers/appliance.cfm?attr=12#dishwashers</p>

**Guidelines for Buying Environmentally Preferable Products:
Building Maintenance**

Product Category & Products	Environmental Attributes to Consider When Purchasing	Green Standard/Guidelines	Notes/Further Information
Refrigerators	<p>GreenPoint Rated: Select an ENERGY STAR®-qualified refrigerator that has less than 20 to 25 cubic feet of capacity (refrigerator and freezer).</p> <p>CEE: Tier 1 ENERGY STAR; Tier 2 ENERGY STAR + 40%</p>	<p>Consortium for Energy Efficiency (CEE), www.cee1.org/com/com-kit/com-kit-fridge-specs.pdf</p> <p>ENERGY STAR, www.energystar.gov/index.cfm?c=refrig.pr_refrigerators</p> <p>GreenPoint Rated, www.builditgreen.org/greenpoint-rated</p>	<p>ENERGY STAR: For a list of qualifying models, visit www.energystar.gov.</p> <p>For products qualifying under CEE, visit www.cee1.org/com/com-kit/com-kit-equip.php3</p>
Space heating and cooling systems, commercial applications only	<p>Use ENERGY STAR qualified systems;</p> <p>All new HVAC equipment must comply with the Consortium for Energy Efficiency (CEE) Tier 1 commercial HVAC standards.</p>	<p>ENERGY STAR, www.energystar.gov/index.cfm?c=heat_cool.pr_hvac</p> <p>Consortium for Energy Efficiency (CEE), www.cee1.org/com/hecac/UnitaryACandHPJan2009.pdf</p>	<p>For a list of local product resources, visit Build It Green's Materials Database, www.builditgreen.org/guide/</p> <p>A Guide to Green Maintenance and Operations, StopWaste.Org, www.stopwaste.org/docs/gbmg-dec-20-07ltr.pdf</p>
Paints	<p>Green Seal: Certified to meet Green Seal GS-11, Paints and Coatings</p> <p>Paints and coatings do not exceed the VOC limits of South Coast Air Quality Management District (SCAQMD) Rule 1113, Architectural Coatings.</p>	<p>Green Seal, www.greenseal.org/certification/standards/paints_and_coatings.pdf</p> <p>South Coast Air Quality Management District (SCAQMD) Rule 1113, Architectural Coatings, latest rules, www.aqmd.gov/rules/reg/reg11_tofc.html</p>	<p>Master's Paint Institute (MPI) lists paints meeting its Green Performance Standard, www.specifygreen.com/APL/Introduction.html</p> <p>A Guide to Green Maintenance and Operations, StopWaste.Org, www.stopwaste.org/docs/gbmg-dec-20-07ltr.pdf</p>
Paint, Recycled	<p>EPA's CPG: Reprocessed Latex Paint: 20% postconsumer for white, light colors and 50-99% postconsumer for dark colors of latex paint; Consolidated Latex Paint: 100% postconsumer</p> <p>Certified to meet Green Seal GS-43, Recycled Latex Paint</p>	<p>EPA's CPG on Consolidated and Reprocessed Paint, www.epa.gov/epawaste/conservation/cpg/products/paint.htm</p> <p>Green Seal GS-43 Standard on Recycled Latex Paint, www.greenseal.org/newsroom/GS-43_Recycled_Content_Latex_Paint.pdf</p>	<p>Public Contract Code (PCC) sections 12203 and 12209 require State agencies (including California State Universities) to ensure that at least 50 percent of the dollars spent on paint be spent on recycled paint with a recycled content consisting of at least 50 percent postconsumer paint, www.leginfo.ca.gov/cgi-bin/displaycode?section=pcc&group=12001-13000&file=12200-12217</p>
Exit Signs	<p>Use ENERGY STAR qualified exit signs (operates on 5 watts or less per sign)</p> <p>Use LED lighting (1-5 watts) over incandescent or fluorescent lighting. Bulbs last up to 100,000 hours (or 10 years)</p>	<p>ENERGY STAR, www.energystar.gov/index.cfm?c=exit_signs.pr_exit_signs</p>	

**Guidelines for Buying Environmentally Preferable Products:
Building Maintenance**

Product Category & Products	Environmental Attributes to Consider When Purchasing	Green Standard/Guidelines	Notes/Further Information
<p align="center">Carpeting - Commercial</p>	<p>CRI: Meets CRI's Green Label Plus programs.</p> <p>SCS: Certified to meet Indoor Air Advantage Gold Program or EPP certification program for Environmentally Preferable Carpet.</p> <p>State of California: California Gold Sustainable Carpet Standard (certified by SCS)</p> <p>USDA's BioPreferred: for woven, tufted, or knitted fiber and a backing system recommends 7% - Minimum Biobased Content</p>	<p>The Carpet and Rug Institute (CRI) Green Label Plus Program, www.carpet-rug.org</p> <p>Scientific Certification Systems Carpet Floor Coverings Assessment Criteria & Reference Guide, www.scscertified.com</p> <p>California Gold Carpet Standard, www.green.ca.gov/EPP/standards.htm</p> <p>USDA BioPreferred Program, www.biopreferred.gov</p>	<p>Draft American National Standard for Trial Use, NSF 140 Sustainable Carpet Assessment Standard, www.nsf.org</p> <p>A Guide to Green Maintenance and Operations, StopWaste.Org, www.stopwaste.org/docs/gbm-g-dec-20-07ltr.pdf</p>
<p align="center">Carpet Cushion</p>	<p>EPA's CPG: Bonded Polyurethane, 15-50% postconsumer (old carpet cushion); Jute, 40% postconsumer (burlap); Rubber, 60-90% postconsumer (tire rubber)</p>	<p>EPA's CPG on Carpet Cushion, www.epa.gov/epawaste/conservation/tools/cpg/products/carpcush.htm</p>	<p>EPA's Fact Sheet on Buying Recycled Construction Products, www.epa.gov/epawaste/conservation/tools/cpg/pdf/construct.pdf</p>
<p align="center">Floor Coverings (non-carpet)</p>	<p>Select flooring with low indoor air emissions; avoid vinyl (PVC)</p>	<p>Scientific Certification Systems FloorScore program certifies for compliance with indoor air emission requirements adopted by State of CA, www.scscertified.com/ecoproducts/indoorairquality/floorscore.html</p>	<p>For a list of local product resources, visit Build It Green's Materials Database, www.builditgreen.org/guide/</p> <p>A Guide to Green Maintenance and Operations, StopWaste.Org, www.stopwaste.org/docs/gbm-g-dec-20-07ltr.pdf</p>
<p align="center">Structural Pest Control</p>	<p>Select services that are certified by EcoWise Certified (developed in partnership with the Association of Bay Area Governments, the Bay Area Green Business Program and others). This program covers northern and southern California.</p>	<p>EcoWise Certified, www.ecowisecertified.org</p>	<p>Bio-integral Resource Center, www.birc.org</p>

Guidelines for Buying Environmentally Preferable Products: Cleaning Products and Supplies

Product Category & Products	Environmental Attributes to Consider When Purchasing	Green Standard/Guidelines	Notes/Further Information
Janitorial Cleaners and Supplies			
All Purpose Cleaner	Green Seal: Certified to meet Green Seal's Industrial and Institutional Cleaners Standard (GS-37)	Green Seal's Industrial and Institutional Cleaners Standard, GS-37, www.greenseal.org/certification/standards/GS-37_Industrial_Cleaner_Standard.pdf	Refer to StopWaste.Org's Fact Sheet on Environmentally Preferable Janitorial Cleaning Products for sample specification and resources, www.StopWaste.Org/EPP
Window Cleaner		EcoLogo's Hard Surface Cleaners Criteria #146, www.ecologo.org/en/seeourcriteria/details.asp?ccd_id=371 , and Biobased Cleaning and Degreasing Compounds, www.ecologo.org/en/seeourcriteria/details.asp?ccd_id=335	
Bathroom Cleaner		EcoLogo: Certified to meet EcoLogo's Cleaners Criteria (#146, #110)	
Cleaner/Degreasers	EcoLogo: Certified to meet EcoLogo's Cleaners Criteria (#146, #110)	EcoLogo's Hard Surface Cleaners Criteria #146, www.ecologo.org/en/seeourcriteria/details.asp?ccd_id=371 , and Biobased Cleaning and Degreasing Compounds, www.ecologo.org/en/seeourcriteria/details.asp?ccd_id=335	
Hand soap, Liquid and Foam	Green Seal: Certified to meet Green Seal's Industrial and Institutional Hand Cleaners and Hand Soaps Standard, GS-41 EcoLogo: Certified to meet EcoLogo's Hand Cleaners for Industrial/Institutional Use (#104)	Green Seal's Industrial and Institutional Hand Cleaners and Hand Soaps Standard, GS-41, www.greenseal.org/certification/standards/industrial_institutional_hand_cleaners_soaps_GS_41.pdf EcoLogo's Industrial and Institutional Hand Cleaners, #104, www.ecologo.org/en/certifiedgreenproducts/?category_id=21#21	Avoid the overuse of antibacterial agents, such as triclosan. See CDC article "Antibacterial Household Products: Cause for Concern," www.cdc.gov/ncidod/eid/vol7no3_supp/levy.htm
Carpet Cleaner	Green Seal: Certified to meet Green Seal's Industrial and Institutional Cleaners Standard (GS-37); EcoLogo: Certified to meet EcoLogo's Carpet and Upholstery Cleaners Standard (#148)	Green Seal's Industrial and Institutional Cleaners Standard, GS-37, www.greenseal.org/certification/standards/GS-37_Industrial_Cleaner_Standard.pdf EcoLogo's Carpet and Upholstery Standard, #148, www.ecologo.org/en/certifiedgreenproducts/?category_id=21#21	
Floor-Care Products: Finishes and Strippers	Green Seal: Certified to meet Green Seal's Industrial and Institutional Floor-Care Products Standard (GS-40) EcoLogo: Certified to meet EcoLogo's Floor Care Products Criteria (#147)	Green Seal's Industrial and Institutional Floor-Care Products Standard, GS-40, www.greenseal.org/certification/standards/industrial_institutional_floor_care_GS_40.pdf EcoLogo's Floor Care Products Criteria, www.ecologo.org/en/seeourcriteria/details.asp?ccd_id=372	Green Seal's Choose Green Report, www.greenseal.org/recommendations/CGR_floorcare.pdf

**Guidelines for Buying Environmentally Preferable Products:
Cleaning Products and Supplies**

Product Category & Products	Environmental Attributes to Consider When Purchasing	Green Standard/Guidelines	Notes/Further Information
Disinfectants		EcoLogo's Disinfectant and Disinfectant Cleaners Criteria, www.ecologo.org/en/seeourcriteria/details.asp?ccd_id=391 - though none of the certified products are US-based.	Products must be registered with the US EPA as a disinfectant. Western States Pollution Prevention Network (WSPPN) Fact Sheet, "Safe and Effective Disinfecting," www.wspn.org/Janitorial/factsheets/disinfectant.htm
Vacuums	Meet Carpet and Rug Institute's Green Label Program for soil removal, dust containment, and carpet fiber retention	Carpet and Rug Institute's Green Label Program list of certified vacuums, www.carpet-rug.org/commercial-customers/cleaning-and-maintenance/seal-of-approval-products	
Plastic Trash Bags	Manufacturer must meet the recycled content manufacturing requirements of the State of CA.	Manufacturing Guideline, State of CA Public Resources Code 42290-42297, www.ciwmb.ca.gov/Buyrecycled/TrashBags/ EPA's CPG: 10-100% postconsumer content, www.epa.gov/epawaste/conserves/tools/cpg/products/trashbag.htm	StopWaste.Org's "Environmentally Preferable Nonpaper Office Products" Fact Sheet, www.StopWaste.Org/EPP
Janitorial Cleaning Services	Green Seal certified under GS-42: Environmental Standard for Cleaning Services Use Green Seal certified cleaners listed under GS-37, GS-40 and GS-41; use recycled paper products and can liners; use vacuums certified by the Carpet and Rug Institute; use microfiber cloths/mops to reduce water consumption Certified as a Bay Area Green Business	Green Seal, www.green Seal.org/findaproduct/ Bay Area Green Business Program, www.greenbiz.ca.gov	StopWaste.Org's Environmental Preferable Janitorial Cleaning Products Fact Sheet includes a sample specification, www.StopWaste.Org/EPP

**Guidelines for Buying Environmentally Preferable Products:
Building Construction**

Product Category & Products	Environmental Attributes to Consider When Purchasing	Green Standard/Guidelines	Notes/Further Information
Building Construction Products			
Building Insulation	EPA's CPG: Cellulose Insulation, 75% postconsumer paper; Perlite Composite Board: 25% postconsumer paper; guidelines also available for fiberglass, rigid foam, rock wool, plastic batt, etc	EPA's CPG for Insulation, www.epa.gov/epawaste/conserves/tools/cpg/products/building.htm	
Concrete, Cement	Use fly ash to replace a percentage of portland cement.	EPA's CPG, www.epa.gov/epawaste/conserves/tools/cpg/products/cement.htm	
Adhesives: Flooring, Construction and Wood/Tile/Other	<p>Meet the South Coast Air Quality Management District Rule 1168 limiting volatile organic compounds (VOCs) for adhesive and sealant products.</p> <p>Meet the criteria by the Collaborative for High Performance Schools (CHPS) for low-emitting materials. Materials must meet the requirements of the California Department of Health's Special Environmental Requirements, Section 01350 AND be certified by an independent testing laboratory, such as GREENGUARD for Low-Emitting Materials or Scientific Certification Systems Indoor Advantage Gold or the Carpet and Rug Institute's Green Label Plus.</p>	<p>South Coast Air Quality Management District, www.aqmd.gov/rules/reg/reg11_tofc.html;</p> <p>CHPS, www.chps.net/manual/lem_overvw.htm</p> <p>California Department of Health's Special Environmental Requirements, Section 01350 (www.ciwmb.ca.gov/greenbuilding/Specs/Section01350/)</p>	<p>Scientific Certification Systems Indoor Advantage, www.scscertified.com/ecoproducts/indoorairquality/index.html</p> <p>GREENGUARD Indoor Air Qualified, www.greenguard.org/Default.aspx?tabid=109</p>
Patio Blocks (used in garden walkways and trails)	<p>Rubber: 90-100% postconsumer content</p> <p>Plastic: no postconsumer content listed</p>	EPA's CPG, www.epa.gov/epawaste/conserves/tools/cpg/products/floor.htm	EPA's Fact Sheet on Buying Recycled Construction Products, www.epa.gov/epawaste/conserves/tools/cpg/pdf/construct.pdf
Shower and Restroom Dividers/Partitions	<p>Plastic: 20-100% postconsumer</p> <p>Steel: usually contains postconsumer content</p>	EPA's CPG, www.epa.gov/epawaste/conserves/tools/cpg/products/shower.htm	<p>Build It Green's Material Database provides local residential resources, www.builditgreen.org/guide/;</p> <p>BuildingGreen.com provides articles, vendor lists, and more, www.buildinggreen.com</p>
Floor Tiles (heavy duty, commercial use)	EPA's CPG: Rubber, 90-100 postconsumer rubber	EPA's CPG on Floor Tiles, www.epa.gov/epawaste/conserves/tools/cpg/products/floor.htm	EPA's Fact Sheet on Buying Recycled Construction Products, www.epa.gov/epawaste/conserves/tools/cpg/pdf/construct.pdf

**Guidelines for Buying Environmentally Preferable Products:
Building Construction**

Product Category & Products	Environmental Attributes to Consider When Purchasing	Green Standard/Guidelines	Notes/Further Information
Wood Products	<p>Certified as sustainably harvested by a comprehensive, performance based certification system, such as the Forest Stewardship Council (FSC).</p> <p>Consider use of plant-based (non-wood) products.</p> <p>Use composite wood (plywood, medium-density fiberboard or MDF) that has no added urea formaldehyde.</p>	Forest Stewardship Council certification, www.fscus.org	
Modular Threshold Ramps	<p>Rubber: 100% postconsumer content</p> <p>Aluminum: 10% total recovered content</p> <p>Steel: usually contains recycled content</p>	EPA's CPG, www.epa.gov/epawaste/conservation/tools/cpg/products/ramps.htm	Modular threshold ramps are used to modify door thresholds and other small rises to remove barriers, particularly in regards to access by people with disabilities.
Nonpressure Pipe	EPA: HDPE, 100% postconsumer; PVC, 5-15% postconsumer (Steel is commonly recycled)	EPA CPG, www.epa.gov/epawaste/conservation/tools/cpg/products/pipe.htm	Nonpressure pipe is used throughout the United States as drainage pipe and conduit in construction, communications, municipal, industrial, agricultural, and mining applications.
Ceiling Tiles	Recycled content ceiling tiles are readily available		
Roof Coatings	20% - Minimum biobased content by USDA BioPreferred Program	USDA BioPreferred Program, www.biopreferred.gov	These are coatings formulated for use in commercial roof deck systems to provide a single-coat monolith coating system
Roofing Materials	<p>EPA: Fiber or Fiber Composite, 50-100% postconsumer; Rubber, 12-100% postconsumer; Plastic or Plastic Rubber Composite, 100% postconsumer (Aluminum and steel are commonly recycled)</p> <p>Refer to the US Green Building Council (USGBC) LEED standards</p>	<p>EPA's CPG, www.epa.gov/epawaste/conservation/tools/cpg/products/roof.htm</p> <p>USGBC, www.usgbc.org</p>	<p>Build It Green's Material Database provides local residential resources, www.builditgreen.org/guide;</p> <p>BuildingGreen.com provides articles, vendor lists, and more, www.buildinggreen.com</p>

**Guidelines for Buying Environmentally Preferable Products:
Office Furnishings**

Product Category & Products	Environmental Attributes to Consider When Purchasing	Green Standard/Guidelines	Notes/Further Information
Office Furnishings			
Office Furniture, Casework	<p>Attributes to Consider: Formaldehyde-free, low or no VOCs, recycled content, no CFCs or HCFCs in foam production, no halogenated organic flame retardants, no antimicrobials, no PVC, no perflourinated compounds, no heavy metals (lead, mercury), energy efficient task lighting and take back/recycling/reuse options.</p> <p>CA Section 01350 requires the State to consider building materials that contain low VOCs, no HFCs or HCFCs in foam production, energy efficient task lighting and limits on emissions of phthalates, aldehydes and formaldehyde.</p> <p>EPA: Plastic furniture component, HDPE: 70-75% postconsumer</p> <p>EPA: Fabric, PET: 100% postconsumer content</p> <p>EPA: remanufactured or refurbished: 25-75% postconsumer</p> <p>EPA: Particleboard/fiberboard: 80-100% total recovered materials, may include other cellulosic materials (wheat straw, paper, biogases) (Not recommending CCA-treated wood [CCA is chrominated copper arsenate] as recovered material in office furniture)</p>	<p>Requirements in CA Section 01350 used by the State of CA, www.ciwmb.ca.gov/greenbuilding/Specs/Section01350/; certified products available through SCS, www.scs-certified.com/ecoproducts/products/</p> <p>GREENGUARD for Children and Schools certifies to Section 01350, www.greenguard.org/Default.aspx?tabid=110</p> <p>EPA's CPG, www.epa.gov/epawaste/conserve/tools/cpg/products/furniture.htm</p> <p>ANSI/BIFMA X7.1-2007 Standard for Formaldehyde and TVOC Emissions of Low-emitting Office Furniture Systems and Seating, and ANSI/BIFMA M7.1-2007 Standard Test Method for Determining VOC Emissions from Office Furniture Systems, Components and Seating, www.bifma.org/standards</p> <p>BIFMA E3 standard is a new sustainability standard for furniture, http://www.bifma.org/public/SusFurnStdArchive/Draft/2008-06-06_BIFMA_e3-2008.pdf. SCS will soon be certifying to this standard, www.scs-certified.com/ecoproducts/products/</p>	<p>State of California, Department of General Services specifications for Environmentally Preferable Modular Office Systems, www.ciwmb.ca.gov/GreenBuilding/Specs/Furniture</p> <p>Build It Green Materials Database provides local resources for residents, www.builditgreen.org/guide</p>

**Guidelines for Buying Environmentally Preferable Products:
Food Service**

Product Category & Products	Environmental Attributes to Consider When Purchasing	Green Standard/Guidelines	Notes/Further Information
Food Service Products			
Rigid or Hinged Containers	<p>Green Seal <i>Choose Green</i> Report: Select non-rigid packaging when suitable for your service needs; use packaging from a renewable resource; use compostable products; buy recycled and/or unbleached fiber content; use the minimum weight within food packaging type.</p> <p>Green Seal: minimum 45% recycled content, not bleached with chlorine or chlorine containing compounds, and shall be compostable in accordance with ASTM D6400 Standard Specification for Compostable Plastics. Packaging must not contain inks, dyes stabilizers or any other additives to which lead, cadmium, mercury, or hexavalent chromium has been intentionally added (must not exceed 100 parts per million by weight).</p>	<p>Green Seal's Food Service Packaging Standard, GS-35, www.greenseal.org/certification/standards/food_service_packaging_GS_35.pdf</p> <p>Green Seal's <i>Choose Green Report</i> on Rigid Quick Serve Food Packaging, www.greenseal.org/recommendations/CGR=FoodPack.pdf</p>	<p>StopWaste.Org's "Biobased Plastics Product and Distributor List," www.stopwaste.org/docs/bioplastics_products-distrib.pdf</p> <p>City of Oakland bans Styrofoam and requires biodegradable/compostable food service ware by food vendors and city facilities, www.oaklandgreenware.com</p>
Food Service Ware - Plates and Bowls	<p>Green Seal: Single-use plates - minimum 45% recycled content, not bleached with chlorine or chlorine containing compounds, and shall be compostable in accordance with ASTM D6400 Standard Specification for Compostable Plastics. Packaging must not contain inks, dyes stabilizers or any other additives to which lead, cadmium, mercury, or hexavalent chromium has been intentionally added (must not exceed 100 parts per million by weight).</p> <p>Reusable, compostable or made from recycled fibers; if compostable, designed to disintegrate and biodegrade quickly and safely when composted in a commercial or municipal facility (meet ASTM D6400).</p>	<p>Green Seal's Food Service Packaging Standard, GS-35, www.greenseal.org/certification/standards/food_service_packaging_GS_35.pdf</p> <p>ASTM D6400 is called "Specifications for Compostable Plastics," www.astm.org/Standards/D6400.htm</p>	<p>Products certified compostable by the Biodegradable Products Institute (BPI), www.bpiworld.org</p> <p>StopWaste.Org's "Biobased Plastics Product and Distributor List" www.stopwaste.org/docs/bioplastics_products-distrib.pdf</p> <p>City of Oakland bans Styrofoam and requires biodegradable/compostable food service ware by food vendors and city facilities, www.oaklandgreenware.com</p>

Guidelines for Buying Environmentally Preferable Products: Food Service

Product Category & Products	Environmental Attributes to Consider When Purchasing	Green Standard/Guidelines	Notes/Further Information
Food Service Ware - Cups, Cold	<p>Reusable, compostable or made from recycled fibers;</p> <p>Compostable: Certified to meet ASTM D6400 or D6868 by the Biodegradable Products Institute (BPI) or other party and designed to disintegrate and biodegrade quickly and safely when composted in a commercial or municipal facility.</p>	<p>Compostable guidelines from the Biodegradable Products Institute, www.bpiworld.org</p> <p>ASTM D6400 is called "Specifications for Compostable Plastics," www.astm.org/Standards/D6400.htm, and ASTM D6868 is "Specification for Biodegradable Plastic Coatings on Paper and other Compostable Substrates" found at www.astm.org/Standards/D6868.htm</p>	<p>Products certified compostable by the Biodegradable Products Institute (BPI), www.bpiworld.org</p> <p>StopWaste.Org's "Biobased Plastics Product and Distributor List" www.stopwaste.org/docs/bioplastics_products-distrib.pdf</p> <p>City of Oakland bans Styrofoam and requires biodegradable/compostable food service ware by food vendors and city facilities, www.oaklandgreenware.com</p>
Food Service Ware - Cups, Hot	<p>Reusable or compostable</p> <p>Ask for a monetary savings incentive for any employee who uses their personal coffee mug. Provide for the purchase of reusable mugs for participation in the discount rate.</p> <p>Compostable: Certified to meet ASTM D6400 or D6868 by the Biodegradable Products Institute (BPI) or other party and designed to disintegrate and biodegrade quickly and safely when composted in a commercial or municipal facility.</p>	<p>Compostable guidelines from the Biodegradable Products Institute, www.bpiworld.org</p> <p>ASTM D6400 is called "Specifications for Compostable Plastics," www.astm.org/Standards/D6400.htm, and ASTM D6868 is "Specification for Biodegradable Plastic Coatings on Paper and other Compostable Substrates" found at www.astm.org/Standards/D6868.htm</p>	<p>Products certified compostable by BPI World (Biodegradable Products Institute), www.bpiworld.org</p> <p>StopWaste.Org's "Biobased Plastics Product and Distributor List" www.stopwaste.org/docs/bioplastics_products-distrib.pdf</p>
Coffee Filters	Use unbleached or reusable filters.	Additional environmental criteria through Nordic Swan, www.svanen.nu/Eng ; Japan's EcoMark, www.ecomark.jp/english/	
Low-flow pre-rinse spray valves	Less than 1.6 gallons per minute or less	Food Service Technology Center, www.fishnick.com/equipment/spray_valves	<p>For a cost calculator measuring before and after water savings, see www.fishnick.com/saveenergy/tools/water_cost</p> <p>For more information, visit the California Urban Water Council at www.cuwcc.org/products/pre-rinse-spray-valves.aspx</p>
Appliances	Replace or purchase commercial appliances with ENERGY STAR models.	ENERGY STAR not available for all products/sizes. Check www.energystar.gov for list of qualifying models.	<p>The Federal Energy Management Program (FEMP) lists energy efficient appliances, www1.eere.energy.gov/femp/procurement</p> <p>Food Service Technology Center, www.fishnick.com</p>

Guidelines for Buying Environmentally Preferable Products: Food Service

Product Category & Products	Environmental Attributes to Consider When Purchasing	Green Standard/Guidelines	Notes/Further Information
Food Service Ware - Cutlery	<p>Reusable</p> <p>Compostable: Certified to meet ASTM D6400 or D6868 by the Biodegradable Products Institute (BPI) or other party and designed to disintegrate and biodegrade quickly and safely when composted in a commercial or municipal facility.</p>	<p>Compostable guidelines from BPI World (Biodegradable Products Institute), www.bpiworld.org</p> <p>ASTM D6400 "Specifications for Compostable Plastics" (www.astm.org/Standards/D6400.htm) or ASTM D6868 "Specification for Biodegradable Plastic Coatings on Paper and other Compostable Substrates" (www.astm.org/Standards/D6868.htm).</p>	<p>Products certified compostable by BPI World (Biodegradable Products Institute), www.bpiworld.org</p> <p>StopWaste.Org's "Biobased Plastics Product and Distributor List" www.stopwaste.org/docs/bioplastics_products-distrib.pdf</p> <p>City of Oakland bans Styrofoam and requires biodegradable/compostable food service ware by food vendors and city facilities, www.oaklandgreenware.com</p>
Bags, Compostable	<p>Certified by Biodegradable Products Institute to biodegrade according to ASTM D6400-99 timeline</p> <p>Plant based resins preferred over petroleum feedstock</p> <p>No phthalates (plasticizers that soften plastic).</p>	<p>Compostable guidelines from the Biodegradable Products Institute, www.bpiworld.org</p> <p>ASTM D6400 is called "Specifications for Compostable Plastics," http://www.astm.org/Standards/D6400.htm, and ASTM D6868 is "Specification for Biodegradable Plastic Coatings on Paper and other Compostable Substrates" found at http://www.astm.org/Standards/D6868.htm</p>	<p>StopWaste.Org's "Biobased Plastics Product and Distributor List" www.stopwaste.org/docs/bioplastics_products-distrib.pdf</p>
Food Service Packaging	<p>Green Seal: Single-use plates - minimum 45% recycled content, not bleached with chlorine or chlorine containing compounds, and shall be compostable in accordance with ASTM D6400 Standard Specification for Compostable Plastics. Plates and bowls must not contain inks, dyes or other additives that contain lead, mercury, cadmium, or hexavalent chromium intentionally added.</p>	<p>Food Service Packaging Standard, Green Seal GS-35, www.greenseal.org/certification/standards/food_service_packaging_GS_35.pdf</p>	<p>StopWaste.Org's "Biobased Plastics Product and Distributor List" www.stopwaste.org/docs/bioplastics_products-distrib.pdf</p>
Vending Machines	<p>Consider snacks and beverages that are healthier (reduced fat)</p> <p>For refrigerated vending machines, select new or rebuilt ENERGY STAR-qualified</p>	<p>"Healthy Vending Guidelines", A Fit City Initiative, City of San Antonio, TX, www.healthcollaborative.net/assets/pdf/vendingcriteria.pdf</p> <p>ENERGY STAR, www.energystar.gov/index.cfm?c=vending_machines.pr_vending_machines</p>	<p>Coca-Cola switching to HFC-free coolers in beverage machines, www.greenbiz.com/news/2008/05/28/coca-cola-deploy-hfc-free-coolers</p> <p>Alameda County General Services Agency specified to turn off lights in machines to reduce energy use (2008).</p>

**Guidelines for Buying Environmentally Preferable Products:
Roads and Transportation**

Product Category & Products	Environmental Attributes to Consider When Purchasing	Green Standard/Guidelines	Notes/Further Information
Roads & Transportation			
Signs	Plastic sign, post: 80-100% postconsumer content	EPA's CPG, www.epa.gov/epawaste/conserves/tools/cpg/products/signage.htm	StopWaste.Org's "Environmentally Preferable Traffic Control Products" Fact Sheet, www.StopWaste.Org/EPP
Parking Stops	Plastic or Rubber: 100% postconsumer content; Concrete	EPA's CPG, www.epa.gov/epawaste/conserves/tools/cpg/products/parking.htm	
Traffic Cones	Plastic (PVC, LDPE): 50-100% total recycled content; Crumb rubber: 50-100% total recycled content	EPA's CPG, www.epa.gov/epawaste/conserves/tools/cpg/products/cones.htm (If available, non-PVC plastic suggested)	
Traffic Barricades	Plastic: 80-100% postconsumer content	EPA's CPG, www.epa.gov/epawaste/conserves/tools/cpg/products/barricds.htm	
Delineators	Plastic: 25-95% postconsumer content Rubber base: 100% postconsumer content	EPA's CPG, www.epa.gov/epawaste/conserves/tools/cpg/products/channel.htm	
Flexible Delineators	Plastic: 25-80% postconsumer content		
Channelizers	Plastic: 25-95% postconsumer content Rubber base: 100% postconsumer content		
Traffic Paint	Water-based, lead free, chromate free, limit of 100 g/L of volatile organic compounds (VOC's), comply with state air quality laws; all water-borne, rapid dry paint (white, yellow, red, green, black), when dry, shall not contain any hazardous materials.	South Coast Air Quality Management District Rule 1113 limits VOC's to 100 g/L effective 7/1/07, www.aqmd.gov/rules/reg/reg11_tofc.html Hazardous waste regulations in the California Code of Regulations Title 22, Div 4, Section 6621.20	StopWaste.Org's "Environmentally Preferable Transportation Products" Fact Sheet, www.StopWaste.Org/EPP INFORM's Public Works & Vehicle Maintenance Fact Sheet, www.informinc.org/fspubworks.pdf Department of Defense Parking Lot Project, www.epa.gov/opptintr/epp/pubs/dodfct.pdf
Traffic Lights	Use ENERGY STAR qualified lights.	ENERGY STAR, www.energystar.gov/index.cfm?c=traffic.pr_traffic_signals	Traffic signals that have earned the ENERGY STAR use high efficiency light emitting diode (LED) technology.

**Guidelines for Buying Environmentally Preferable Products:
Roads and Transportation**

Product Category & Products	Environmental Attributes to Consider When Purchasing	Green Standard/Guidelines	Notes/Further Information
Asphalt Concrete	Use reclaimed, reground or rubberized asphalt concrete, when practicable. See detailed products below.		StopWaste.Org's Green Building Guidelines encourage displacing 30%-50% of cement with fly ash, www.BuildGreenNow.org
Rubberized Hot Mix Asphalt	Use crumb rubber in asphalt road applications. A two-inch-thick rubberized asphalt concrete overlay can save as much as \$50,000 per lane mile when compared to a four-inch-thick conventional asphalt overlay. A two-inch-thick resurfacing project uses over 2,000 scrap tires per lane mile.	Refer to Caltran's Standard Special Provision's Sec 39-150 (Gap Graded) and Sec 39-200 (Open Graded), www.dot.ca.gov/hq/esc/oe/specs_html/2006_specs.html	Rubberized Asphalt Technology Center, www.rubberizedasphalt.org
Aggregate Base	Caltrans: " <i>Class 2, Class 3 Bases</i> : Aggregate may include material processed from reclaimed asphalt concrete, portland cement concrete, lean concrete base, cement treated base or a combination of any of these materials. The amount of reclaimed material shall not exceed 50 percent of the total volume of the aggregate used."	Caltran's allows up to 50% reclaimed materials in aggregate base Class 2 and 3, and in aggregate subbase Class 1, Class 2, Class 3, and Class 4, as specified in the Standard Specifications, May, 2006. www.dot.ca.gov/hq/esc/oe/specifications/std_specs/2006_StdSpecs/2006_StdSpecs.doc or visit www.ciwmb.ca.gov/ConDemo/Specs/CaltransAgg.htm#2006_Standard	
Aggregate Subbase	Caltrans: " <i>Class 1, Class 2, Class 3 and Class 4 Aggregate Subbases</i> : Aggregate may include material processed from reclaimed asphalt concrete, portland cement concrete, lean concrete base, cement treated base or a combination of any of these materials. The amount of reclaimed material shall not exceed 50 percent of the total volume of the aggregate used.	For aggregate base and aggregate subbase using more than 50% reclaimed materials, refer to Caltran's Standard Special Provisions. Caltrans allows the use of processed glass for some base and subbase applications.	
Tire Derived Aggregate	Tire derived aggregate (TDA) is made up of shredded tires and is used in many public works projects (retaining walls, drainage layers, lightweight conventional fill, landfill gas collection) and is the second largest use of tires in the US.	State Public Contract Code (12209, 22150) that state and local agencies shall purchase tire-derived products, when fitness and quality are equal.	For more information, see http://zerowaste.ca.gov/RCM/pdf/BroTDA.pdf and http://zerowaste.ca.gov/RCM/pdf/AdTDA.pdf . Also visit www.usetda.com/

**Guidelines for Buying Environmentally Preferable Products:
Roads and Transportation**

Product Category & Products	Environmental Attributes to Consider When Purchasing	Green Standard/Guidelines	Notes/Further Information
Portland Cement Concrete (PCC)	<p>Reclaimed concrete material (RCM) can be used in PCC pavements. Many types of general bulk fills include bank protection, base or fill for drainage structures, road construction, noise barriers and embankments. Screened crushed aggregates can be used for new concrete for pavements, shoulders, median barriers, sidewalks, curbs and gutters, bridge foundations, structural grade concrete, soil-cement pavement bases, lean-concrete or econo-crete bases and bituminous concrete.</p> <p>As a stormwater management tool, porous concrete may be an option for reducing stormwater runoff.</p>		<p>For more information on using recycled aggregates in PCC, visit www.cement.org/tech/cct_aggregates_recycled.asp</p>
Reclaimed Asphalt Pavement (RAP)	<p>Reclaimed asphalt pavement (RAP) is used as aggregate in cold recycling of asphalt mixtures. It can be used as granular base or subbase material in virtually all pavement types, including paved and unpaved roadways, parking areas, bicycle paths, gravel road rehabilitation, shoulders, residential driveways, trench backfill, engineered fill, pipe bedding, and culvert backfill. Hot mix asphalt can be manufactured using RAP as substitute for virgin aggregate. In addition the old binder substitutes for virgin (new) binder.</p>	<p>Caltrans Standard Specifications, Section 39, "Hot Mix Asphalt" includes RAP requirements. Up to 15% can be used in Caltrans' projects.</p>	<p>For more information on RAP, visit www.tfhrcc.gov/hnr20/recycle/waste/rcc1.htm</p> <p>For more information on pervious concrete see www.perviouspavement.org/</p>
Sidewalks	<p>Concrete: Recycled content</p> <p>Rubber: 95-100% postconsumer content</p>		
Flowable Fill	<p>Use with coal fly ash and/or ferrous foundry sands for backfill and other fill applications</p>	<p>EPA's CPG, www.epa.gov/epawaste/conserves/tools/cpg/products/flow-fil.htm</p>	
Railroad grade crossing surfaces	<p>Concrete: 10-15% coal fly ash total content</p> <p>Rubber: 85-95% tire rubber total content</p> <p>Wood: 90-97% wood or composite postconsumer content</p> <p>Plastic: 85-95% plastic or composite postconsumer content</p> <p>Steel: usually contains recycled content</p>	<p>EPA's CPG, www.epa.gov/epawaste/conserves/tools/cpg/products/rail.htm</p>	
Manhole Adjusting Rings	<p>Recycled content (100% postconsumer plastic or rubber)</p>		<p>For a list of vendors, visit www.rethinkrecycling.com/government/eppg/-buy-products-services/vehicles/manhole-adjusting-rings</p>

Guidelines for Buying Environmentally Preferable Products: Vehicle Products

Product Category & Products	Environmental Attributes to Consider When Purchasing	Green Standard/Guidelines	Notes/Further Information
Vehicle & Automotive Maintenance			
Auto Repair Services	BAGBP: Uses aqueous-based sink or parts washer instead of petroleum based solvents. Orders fluids in bulk instead of individual containers. Replace spray cans with brake cleaning sinks or refillable spray containers. Eliminate unnecessary car washing and prevent soapy water from going into storm drains. Use energy conserving lights. Use squeegee and dust pan or an oil mop instead of sorbents. Minimize liquids used and discharged.	Bay Area Green Business program (BAGBP) certifies Automotive Services as a Green Business, www.greenbiz.ca.gov	
Tires	Procure retreading services for used tire casings; procure tires from both vendors of tires and of retreads.	EPA's CPG, www.epa.gov/epawaste/conserve/tools/cpg/products/retread.htm	
Lubricating Oils: Motor Oils Hydraulic Fluids	The State of CA requires local agencies to purchase re-refined motor oil certified by the API for use in vehicles and equipment, as appropriate for use.	EPA's CPG, www.epa.gov/epawaste/conserve/tools/cpg/products/lubricat.htm	The State of California has contracts available for re-refined motor oil and hydraulic fluid. Biobased hydraulic fluids are defined as those formulated for general use in non-stationary equipment, such as tractors, end loaders, or backhoes.
Gear Oils	EPA recommends the highest content level of re-refined oil but no lower than 25%. USDA has designated hydraulic fluid as part of biobased affirmative product program; minimum biobased content of 44%.	California Contract Code, Sec 10409, www.ciwmb.ca.gov/UsedOil/Rerefined/Procurement/Code.htm USDA BioPreferred Program, www.biopreferred.gov	Dielectric hydraulic fluid is available with biobased content, www.wiserenewables.com/PDF/Bio-1500%20(Dielectric)%20Hydraulic%20Fluids.pdf
Engine Coolants/Antifreeze	EPA recommends: (1) for motor pool or vehicle maintenance facility to establish a program for reclamation and reuse or a service contract; (2) request reclaimed antifreeze when serviced, or purchase reclaimed engine coolant when making direct purchases, and (3) purchase antifreeze containing only one base chemical (typically ethylene glycol or propylene glycol) to prevent commingling of incompatible coolants. State of CA Buy Recycled Program: minimum 70% postconsumer content	EPA's CPG, www.epa.gov/epawaste/conserve/tools/cpg/products/engine.htm State of CA Buy Recycled Program, www.ciwmb.ca.gov/BuyRecycled/StateAgency/Buying.htm#Antifreeze	Propylene glycol based antifreeze is eight times less toxic than ethylene glycol and, unfortunately, is NOT sold as recycled product on its own. Only five percent of all antifreeze sold in the State is propylene glycol based and what is recycled is included in the ethylene glycol based product. (CIWMB doc)

Guidelines for Buying Environmentally Preferable Products: Vehicle Products

Product Category & Products	Environmental Attributes to Consider When Purchasing	Green Standard/Guidelines	Notes/Further Information
Vehicles	<p>Incorporate specifications for reducing hazardous substances found in vehicle parts--mercury, lead and PVC (vinyl)--as well as specifications pertaining to fuel economy and emissions.</p> <p>Choose vehicles with higher scores on the California Environmental Performance Label (smog score and global warming score).</p> <p>Meet Federal and California Exhaust and Evaporative Emissions Standards.</p>	<p>CA Air Resources Board provides smog and global warming info for all vehicles from 1996 to present. Detailed information, specifications and images are provided for buyers to compare the pollution levels between vehicles, DriveClean.ca.gov</p> <p>Federal and California Exhaust and Evaporative Emission Standards for Light-Duty Vehicles and Light-Duty Trucks, www.epa.gov/otaq/stds-ld.htm</p>	<p>State of CA Contracts for Alternative Fueled/Flex Fueled Vehicles and Trucks, www.pd.dgs.ca.gov/contracts/23-22.htm; for Sedans and Station Wagons, www.pd.dgs.ca.gov/contracts/23-10.htm; and for Hybrid Vehicles, www.pd.dgs.ca.gov/contracts/23-11.htm</p> <p>Find the latest Automotive Fuel Economy Guide, www.fueleconomy.gov</p> <p>EPA's Green Vehicle Guide, www.epa.gov/greenvehicles</p> <p>INFORM's Specifications for Cleaner Vehicles, www.informinc.org/fs_P3vehicles2.pdf or see INFORM's Factsheet, www.informinc.org/fact_P3vehicles.php</p>
Vehicular Parts	<p>Use rebuilt (or remanufactured) vehicular parts in passenger, medium and heavy-duty equipment or establish a program for used vehicular parts</p>		<p>Follow FTC's "Guide for Rebuilt, Reconditioned and Other Use Automotive Parts," http://www.ftc.gov/os/2002/03/16cfr20.pdf</p>
Vehicle Fuels	<p>Alternative fuels that are less polluting include methanol, compressed natural gas (CNG), liquefied natural gas (LNG), electricity, biodiesel, ethanol and propane.</p>	<p>EPA encourages the use of alternative fuels, www.epa.gov/otaq/consumer/fuels/altfuels/altfuels.htm</p>	<p>State of California Alternative Fueled Vehicles Contract, www.pd.dgs.ca.gov/contracts/vehicles.htm</p> <p>U.S. Department of Energy Alternative Fuels Station Locator, www.afdc.energy.gov/afdc/locator/m/station</p>
Biodiesel Fuel	<p>Meets ASTM D6751 and is legally registered with EPA as a legal motor fuel. Blend at any percentage with petroleum diesel to create a biodiesel fuel blend.</p>	<p>National Biodiesel Board, www.biodiesel.org</p> <p>Specification for Biodiesel (B100), www.biodiesel.org/pdf_files/fuel/factsheets/BDSpec_07b.pdf</p>	<p>StopWaste.Org Fact Sheet, Biodiesel Fuel Use in Heavy Duty Vehicles, www.StopWaste.Org/EPP</p> <p>Federal Register: Guidelines for Designating Biobased Products for Federal Procurement, (page 13705), http://www.ofee.gov/final_rule.pdf</p>

**Guidelines for Buying Environmentally Preferable Products:
Vehicle Products**

Product Category & Products	Environmental Attributes to Consider When Purchasing	Green Standard/Guidelines	Notes/Further Information
<p align="center">Vehicle Parts Washing and Brake Cleaners</p>	<p>Green Seal: (1) Cleaning Solution: Only aqueous detergents or non-chlorinated solvents are used in a liquid-based cleaning system. (2) Cleaning System reduces generation of hazardous waste compared to a static tank containing solvent that is replaced frequently. Systems meeting this criterion include, but are not limited to, recirculating, filtered systems on a strict maintenance schedule; ultrasonic washers; etc.</p> <p>Comply with the latest Bay Area Air Quality Management District VOC level requirements.</p>	<p>Green Seal's Standard for Vehicle Maintenance, GC-10, www.green Seal.org/standards/fleetvehiclemaint.htm</p> <p>California Air Resource Board for latest requirements, http://www.arb.ca.gov/homepage.htm</p>	<p>CA Department of Toxic Substance Control (DTSC) Fact Sheet on Aqueous Cleaners, www.dtsc.ca.gov/PollutionPrevention/VS R/upload/AqueousPartsCleanAuto02.pdf</p> <p>CA Department of Toxic Substance Control (DTSC) Fact Sheet on Aqueous Brake Cleaners, www.dtsc.ca.gov/PollutionPrevention/VS R/upload/Brakewash02.pdf</p> <p>CA Department of Toxic Substance Control, Case Studies on Aqueous Parts Cleaning, www.dtsc.ca.gov/PollutionPrevention/VS R/upload/CasestudiesFleet02.pdf</p> <p>Solvent Alternatives Guide, http://clean.rti.org</p>
<p align="center">Wheel Weights</p>	<p>Use lead-free wheel weights to reduce environmental impact</p>	<p>The European Union declared a ban on the use of lead in wheel weights in 2005.</p> <p>King County Fact Sheet on Wheel Weights, www.kingcounty.gov/operations/procurement/Services/Environmental_Purchasing/Products.aspx</p>	

Guidelines for Buying Environmentally Preferable Products: Landscaping

Product Category & Products	Environmental Attributes to Consider When Purchasing	Green Standard/Guidelines	Notes/Further Information
Exterior Site Work, Landscaping			
<p>Compost (Soil Amendment)</p>	<p>CIWMB: At least 80% of the product shall consist of materials, including, but not limited to, the materials listed in subdiv. (c) of Sec. 12207 of the PCC, that would otherwise be normally disposed of in landfills. Compost means a product resulting from: (A) the controlled biological decomposition of organic materials including yard trimmings and wood byproducts that are separated from the municipal solid waste stream at the source of generation or at a centralized facility, or other source of organic materials; (B) produced by a supplier that is in compliance with CIWMB's composting operations regulatory reqs.</p> <p>EPA's CPG: Contract language should not exclude or discourage the use of compost.</p> <p>Caltrans: provider must be in US Composting Council STA; derived from any single or mixture of green materials consisting of chipped, shredded, or ground vegetation; or clean processed recycled wood products, biosolids, manure or mixed food waste; compost the feedstock materials such that weed seeds, pathogens and deleterious materials are reduced as specified under Title 14, CA Code of Regs. Div. 7, Chptr 3.1, Article 7, Sec. 17868.3; metal concentrations in compost must not exceed the max. metal concentration as listed in Code Sec. above. Must comply with Caltrans physical & chemical reqs.</p> <p>Prefer regionally generated plant debris and/or food waste.</p>	<p>CIWMB Public Contract Code (PCC) Section 12200-122217, www.leginfo.ca.gov/cgi-bin/displaycode?section=pcc&group=12001-13000&file=12200-12217</p> <p>EPA's CPG, www.epa.gov/epawaste/conserve/tools/cpg/products/compost.htm</p> <p>US Compost Council Standard Testing Assurance (STA) Program analyzes certified products for the following properties: pH, soluble salts, nutrient content, moisture content, organic matter content, bioassay (maturity), stability (respirometry), particle size (report only), pathogen (Fecal Coliform or Salmonella), trace metals (Part 503 regulated metals). Find certified products by the US Composting Council's STA Program, www.compostingcouncil.org/programs/sta</p> <p>Caltrans: www.dot.ca.gov/hq/LandArch/policy/compost_specs.htm</p>	<p>The U.S. Department of Transportation's "Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects 1996" specifies compost as one of the materials suitable for use in roadside revegetation projects associated with road construction. These standards do not preclude the use of compost made from yard trimmings, leaves, grass clippings, and/or food waste.</p> <p>US Composting Council, http://tmecc.org/tmecc</p> <p>Compost sources available at www.BayFriendly.org</p> <p>For a listing products certified as organic, visit the Organic Materials Resource Institute (OMRI) Certification, www.omri.org.</p>

Guidelines for Buying Environmentally Preferable Products: Landscaping

Product Category & Products	Environmental Attributes to Consider When Purchasing	Green Standard/Guidelines	Notes/Further Information
<p>Compost blankets, socks, and berms</p>	<p>The American Association of State Highway Transportation Officials (AASHTO) and many individual state Departments of Transportation (DOTs) have issued specifications for compost blankets, berms and filter socks (AASHTO, 2003; USCC, 2001).</p> <p>USCC: For detailed specifications on compost for erosion control, visit www.compostingcouncil.org/uploads/f5434a42baed1050c98b897206b2d16a.pdf</p>	<p>The U.S. Composting Council (USCC) certifies compost products under its Seal of Testing Assurance (STA) Program, www.compostingcouncil.org/programs/sta</p> <p>Caltrans's Special Standards provisions cover compost blankets and socks, see Special Standards Provision (SSP) 20-062 (sock) and SSP 20-055 (blanket), www.dot.ca.gov/hq/esc/oe/specs_html/2006_specs.html</p>	<p>The U.S. Dept. of Transportation's "Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects 1996" specifies compost as one of the materials suitable for use in roadside revegetation projects associated with road construction. These standards do not preclude the use of compost made from yard trimmings, leaves, grass clippings, and/or food waste.</p> <p>EPA Fact Sheets on Compost Blankets, Berms and Filter Socks, relevant BMP Fact Sheets at http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=browse</p>
<p>Fertilizers made with organic materials</p>	<p>EPA CPG: Ensure there is no contract language in their specifications relating to such applications as agriculture and crop production, landscaping, horticulture, parks and other recreational facilities, on school campuses, and for golf course and turf maintenance that would preclude or discourage the use of fertilizers made from recovered organic materials.</p> <p>Feed soils naturally and avoid synthetic fertilizers. Quality compost provides a source of slow-release nutrients and trace elements which reduces the need for synthetic fertilizers.</p> <p>Contractor shall select fertilizers that are released over a period of time, are predominantly organic and derived from natural sources, are produced locally, and will not pollute surface and ground water when properly used to provide primary nutrient needs.</p>	<p>EPA's CPG: www.epa.gov/epawaste/conservation/tools/cpg/products/compost.htm</p> <p>Bay Friendly Landscape Maintenance Specifications, www.BayFriendly.org</p>	<p>For a list of organically certified products as well prohibited fertilizers, refer to Organic Materials Resource Institute (OMRI), www.omri.org</p> <p>Refer to additional resources listed under Compost.</p>

**Guidelines for Buying Environmentally Preferable Products:
Landscaping**

Product Category & Products	Environmental Attributes to Consider When Purchasing	Green Standard/Guidelines	Notes/Further Information
<p align="center">Mulch</p>	<p>Preference for recycled, regionally generated plant debris and/or food waste.</p> <p>Bay Friendly: Maintain a min. of 2" of coarse organic mulch at all times over soil surface that is not covered by vegetation. Mulch materials shall be chipped or shredded green waste, wood chips from pruning operations, or chipped landscape prunings. When available, use materials on-site. Avoid shredded redwood bark mulch.</p> <p>Caltrans: provider must be a compost producer and participant in US Composting Council Seal of Testing Assurance (STA); derived from any single or mixture of green materials consisting of chipped, shredded, or ground vegetation; or clean processed recycled wood products, Biosolids, Manure or Mixed food waste; compost mulch materials such that weed seeds, pathogens and deleterious materials are reduced as specified under Title 14, CA Code of Regs. Division 7, Chapter 3.1, Article 7, Section 17868.3; metal concentrations in composted mulch must not exceed the maximum metal concentration as listed in Code above. Must comply with Caltrans Physical and Chemical Reqs.</p>	<p>Bay Friendly Landscape Maintenance Specifications, www.BayFriendly.org</p> <p>Caltrans: www.dot.ca.gov/hq/LandArch/policy/compost_specs.htm</p>	<p>The California Integrated Waste Management Board provided several compost workshops. Here is a link to the March, 2009, San Jose workshop and all of the presentations on the use of compost, www.urbancompost.com/workshop_2-26-09.htm</p>
<p align="center">Concrete</p>	<p>Limit impervious surfaces in the landscape wherever practicable, such as using permeable asphalt or pavers for walkways, patios and driveways;</p> <p>EPA CPG: Encourages the use of cement and concrete with recycled content (such as fly ash, slag, cenospheres).</p> <p>Bay Friendly: Use a minimum of 25% recycled aggregate (crushed concrete) for walkways, roadway base and other uses; replace portland cement in concrete with fly ash or slag.</p>	<p>Alameda County Clean Water Program, www.cleanwaterprogram.org/businesses_developers.htm</p> <p>EPA's CPG, www.epa.gov/epawaste/conserves/tools/cpg/products/cement.htm</p> <p>Bay Friendly Scorecard for Commercial & Civic Landscapes found in the Bay Friendly Landscape Guidelines, www.BayFriendly.org</p>	
<p align="center">Waste or Recycling Receptacles</p>	<p>EPA CPG: Plastic: 20-100% postconsumer; Paper-corrugated: 25-50% postconsumer; Paper solid fiber: 40% postconsumer; Paper-industrial paperboard: 40-80% postconsumer</p>	<p>EPA's CPG, www.epa.gov/epawaste/conserves/tools/cpg/products/office.htm</p>	<p>StopWaste.Org's "Recycled Content Park and Recreation Products" Fact Sheet, www.StopWaste.Org/EPP</p>

Guidelines for Buying Environmentally Preferable Products: Landscaping

Product Category & Products	Environmental Attributes to Consider When Purchasing	Green Standard/Guidelines	Notes/Further Information
Plastic Lumber Landscaping Timbers and Posts	HDPE: 25-100% postconsumer content Mixed plastics/sawdust: 50% postconsumer HDPE/fiberglass: 75% postconsumer Other mixed resins: 50-100% postconsumer content	EPA's CPG, www.epa.gov/epawaste/conserves/tools/cpg/products/timbers.htm	
Lawn and Garden Edging	EPA: Plastic and/or rubber: 30-100% postconsumer	EPA's CPG, www.epa.gov/epawaste/conserves/tools/cpg/products/edging.htm	
Pavers and Tiles	EPA: Rubber: 90-100% postconsumer content Recycled plastic: no content listed Glass: consider postconsumer content	EPA's CPG, www.epa.gov/epawaste/conserves/tools/cpg/products/floor.htm	See also "Patio blocks" under Building Construction tab
Garden and Soaker Hoses	EPA: Garden hose: rubber and/or plastic: 60-65% postconsumer EPA: Soaker hose: rubber and/or plastic: 60-70% postconsumer content	EPA's CPG, www.epa.gov/epawaste/conserves/tools/cpg/products/garden.htm	
Bike Racks	Steel: usually contains recycled content HDPE: 100% postconsumer content	EPA's CPG, www.epa.gov/epawaste/conserves/tools/cpg/products/bikes.htm	
Integrated Pest Management (IPM)	Use organic pest management or Integrated Pest Management; use least toxic pest control as last resort City and County of San Francisco: City departments shall give preference to reasonably available non-pesticide alternatives when considering the use of pesticides on City property; shall follow IPM approach listed in policy.	City of San Francisco Pest Management Ordinance, http://sfenvironment.org/downloads/library/ipmordinance.pdf	Directory of Least Toxic Pest Control Products, or other publications from the Bio-Integral Resource Center, www.birc.org UC Davis Online Integrated Pest Management Program, www.ipm.ucdavis.edu Urban Pesticide Pollution Prevention Project (UP3), www.up3project.org/up3_index.shtml Bio-Integral Resource Center, www.birc.org Model Bay Friendly Landscape Maintenance Specifications, www.BayFriendly.org

Guidelines for Buying Environmentally Preferable Products: Landscaping

Product Category & Products	Environmental Attributes to Consider When Purchasing	Green Standard/Guidelines	Notes/Further Information
Plants	Bay Friendly: Select plants that grow to natural size and avoid shearing; give preference to native or drought tolerant plants; avoid invasive plants; choose California natives first	Bay Friendly Scorecard for Commercial & Civic Landscapes found in the Bay Friendly Landscape Guidelines, www.BayFriendly.org	"Plants and Landscapes for Summer Dry Climates," www.ebmud.com/conserving_&_recycling/plant_book/default.htm California Native Plants Society (CNPS), www.cnps.org ; or search for native plants nurseries at the California Native Plant Link Exchange, www.cnplx.info/index.html
Irrigation	Bay Friendly: Design for on-site rainwater collection, recycled water and/or graywater use; group plants based on water needs	Bay Friendly Scorecard for Commercial & Civic Landscapes found in the Bay Friendly Landscape Guidelines, www.BayFriendly.org	
Lighting	Bay Friendly: Low energy or photovoltaic fixtures; exterior luminaries emit no light above horizontal or are Dark Sky certified	Bay Friendly Scorecard for Commercial & Civic Landscapes found in the Bay Friendly Landscape Guidelines, www.BayFriendly.org	International Dark-Sky Association, www.darksky.org
Plastic Temporary Fencing	Coming under many different names depending on application, snow fencing, safety fencing, etc, is typically an orange (sometimes red or green) product in an open-weave pattern also described as a woven plastic mesh or chain link style. Plastic temporary fencing is usually available in 50 to 100 foot rolls that are 4 to 8 feet in height. The most common postconsumer plastic resin used to make such fencing is high density polyethylene (HDPE).	CA Public Contract Code: State agencies must ensure at least 50% of their dollars spent on plastic products be spent on plastic products containing a minimum of 10% postconsumer plastic	CIWMB Best Practices Manual, www.green.ca.gov/EPP/Grounds/PTFencing.htm#specs

**Guidelines for Buying Environmentally Preferable Products:
Parks and Recreation**

Product Category & Products	Environmental Attributes to Consider When Purchasing	Green Standard/Guidelines	Notes/Further Information
Parks and Recreation Products			
Park Benches	Plastic: 90-100% postconsumer content Plastic composite: 50-100% postconsumer content	EPA's CPG, www.epa.gov/epawaste/conservation/tools/cpg/products/pk-bench.htm	StopWaste.Org's "Recycled Content Park and Recreation Products" Fact Sheet, www.StopWaste.Org/EPP
Plastic Fencing (for specified uses)	60-100% postconsumer content	EPA's CPG, www.epa.gov/epawaste/conservation/tools/cpg/products/fencing.htm	
Playground Equipment	Plastic: 90-100% postconsumer content Plastic composite: 50-75% postconsumer content	EPA's CPG, www.epa.gov/epawaste/conservation/tools/cpg/products/plgrndeq.htm	StopWaste.Org's "Recycled Content Park and Recreation Products" Fact Sheet, www.StopWaste.Org/EPP
Playground Surfaces	Plastic or rubber: 90-100% postconsumer content	EPA's CPG, www.epa.gov/epawaste/conservation/tools/cpg/products/playgrnd.htm	
Running Tracks	Plastic or rubber: 90-100% postconsumer content	EPA's CPG, www.epa.gov/epawaste/conservation/tools/cpg/products/running.htm	For vendor listings, visit the CIWMB Recycled-Content Product Directory, www.ciwmb.ca.gov/RCP
Signage, Sign Posts/Supports	Plastic: 80-100% postconsumer content	EPA's CPG, www.epa.gov/epawaste/conservation/tools/cpg/products/signage.htm	For vendor listings, visit the CIWMB Recycled-Content Product Directory, www.ciwmb.ca.gov/RCP
Marine & Golf Course Products			
Marine Decking	Recycled content rubber or plastic lumber		For a listing of vendors, see CIWMB Buy Recycled Guide, www.ciwmb.ca.gov/RCP
Marine bumpers and fenders	Recycled content (100% postconsumer rubber)		For a listing of vendors, see CIWMB Buy Recycled Guide, www.ciwmb.ca.gov/RCP
Marine pilings, camels	Recycled content (50-100% postconsumer plastic)		For a listing of vendors, see CIWMB Buy Recycled Guide, www.ciwmb.ca.gov/RCP
Golf course signage	Recycled content (100% postconsumer plastic)		For a listing of vendors, see CIWMB Buy Recycled Guide, www.ciwmb.ca.gov/RCP
Golf course markers	Recycled content (100% postconsumer plastic)		For a listing of vendors, see CIWMB Buy Recycled Guide, www.ciwmb.ca.gov/RCP
Divot mix containers	Recycled content (100% postconsumer plastic)		For a listing of vendors, see CIWMB Buy Recycled Guide, www.ciwmb.ca.gov/RCP

**Guidelines for Buying Environmentally Preferable Products:
Miscellaneous**

Product Category & Products	Environmental Attributes to Consider When Purchasing	Green Standard/Guidelines	Notes/Further Information
Miscellaneous Products			
Awards and plaques	Glass: 75-100% postconsumer; Paper: 40-100% postconsumer; Plastic & plastic wood composite: 50-100% postconsumer	EPA's CPG, www.epa.gov/epawaste/conservation/tools/cpg/products/awards.htm	
Industrial drums	Plastic (HDPE): 30-100% postconsumer; Fiber: 100% postconsumer; Steel typically contains recycled content.	EPA CPG, www.epa.gov/epawaste/conservation/tools/cpg/products/drums.htm	An industrial drum is a cylindrical container used for shipping and storing liquid or solid materials. According to the Plastic Drum Institute (PDI), between 12 and 15 million plastic drums are manufactured annually. Most drums are used to ship chemical and petroleum products.
Mats	Rubber: 75-100% postconsumer; Plastic: 10-100% postconsumer; Rubber/Plastic composite: 100% postconsumer	EPA CPG, www.epa.gov/epawaste/conservation/tools/cpg/products/mats.htm	Mats are temporary or semi permanent protective floor coverings used for numerous applications including protecting carpet from wear and tear or providing traction on stairs or slippery floors.
Pallets	Wood: 95-100% postconsumer; Plastic lumber: 100% postconsumer; Plastic thermoformed: 25-50% postconsumer	EPA CPG, www.epa.gov/epawaste/conservation/tools/cpg/products/pallets.htm	Pallets are rigid platforms made of wood, plastic, or paperboard used for shipping a variety of products including food, paper, and military supplies.
Sorbents	Paper: 90-100% postconsumer; Textiles: 95-100% postconsumer; Plastics, Wood and Other Organics or Multimaterials: 25-100% preconsumer recycled content	EPA CPG, www.epa.gov/epawaste/conservation/tools/cpg/products/sorbents.htm	Absorbents and adsorbents (referred to as "sorbents") are used in environmental, industrial, agricultural, medical, and scientific applications to retain liquids and gases. Absorbents incorporate substances throughout the body of the absorbing material, while adsorbents gather substances over the surface of the material.