

City of Seattle Green Purchasing Accomplishment Report 2007



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**Seattle Public Utilities
and
Department of Finance and Administrative Services , City Purchasing**

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1. Executive Summary

Traditional environmental policy has led to significant achievements. There are, however, a range of environmental problems still waiting to be solved by the industrialized societies: climate change, continuing acidification, loss of soils and growing health problems due to air pollutants and dispersed toxic substances. It is obvious that this cannot be done by hierarchic “command and control” protection alone. Therefore environmental experts and recent policy documents unanimously call for integrating the consideration of environmental aspects throughout society and in all fields of policy.

Public purchasing, as one of the environmentally most significant fields in direct responsibility of governments, plays a significant role in this respect. This report provides information on how to turn this concept into action. It comprises the experiences and recommendations of practitioners.

2. Overview

This report provides a summary of the City of Seattle green purchasing achievements, environmental benefits, case studies, recommendations, references to City policies, and contact information, through the year-end 2007.

Green purchasing, also known as environmentally preferable purchasing (EPP), is a policy that many local, state, and federal agencies have adopted. Such policies commit to acquisition of environmentally preferred products for use by the public agencies, but also commit to serving as a model for citizens and to encourage the marketplace towards environmental objectives. In purchasing decisions, agencies consider multiple environmental impacts, such as carbon dioxide emissions, toxicity, and water pollution. Environmentally preferable attributes are then formalized in request for proposals (RFPs) or contract specifications.

The City Purchasing Interdepartmental Green Team program represents a cooperative effort among City Departments, hosted by City Purchasing (Department of Finance and Administrative Services). The City has organized the Purchasing Green Team to provide expertise, guidance, strategies and support. Representatives from Seattle Public Utilities, Seattle Parks Department, Seattle Department of Transportation, and other key departments serve on the Green Team.

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3. Green Purchasing Policy

The Mayor provides direction and leadership to all City Departments, to initiate actions that contribute to environmentally preferable practices for reduction of toxins, waste, consumption and saving of natural resources. The Mayor's Climate Action Plan also directs actions to reduce greenhouse gas emissions.

The City of Seattle committed to Green Purchasing through a series of ordinances, Executive Orders and policy directives.

The following ordinances govern the City's sustainable purchasing:

1. SMC 20.60.200 et. Seq., Reusable Products, Recycled Content Products, and Recyclable Products Procurement Program.
2. Seattle Municipal Code 3.18.900 - 926 (Ordinance 116720 and 116726).

The Mayor and Seattle City Council provides additional executive commitment and leadership as follows:

1. US Mayor's Climate Protection Agreement, launched November 1, [Agreement](#)
2. Mayor Nickels' Climate Action Plan www.seattle.gov/html/CITIZEN/climate.htm
3. Mayor's Executive Order for Paper Use - #01-05 www.seattle.gov/papercuts/
4. Resolution 27828, directing Solid Waste to develop policies and practices to encourage, increase, and require recycling, waste reduction, and the purchase of recycled products.
5. Resolution 28556, authorizing the Director of ESD to develop a "Recycled-content Procurement Plan."
6. Resolution 29949 –implementation of Copernicus, encouraging the City to act as a regional partner in environmental protection
7. City Council Resolution #30487 on Persistent Bioaccumulative Toxins

The City also has a series of policies including:

1. City Pesticides Reduction rules
2. City Sustainable Building Action Plan
3. City Green Fleets Initiative
4. Seattle Green Ribbon Commission Report on Greenhouse Gases
5. The 1998 Solid Waste Management Comprehensive Plan, which identifies ways that purchasing affects waste management. The 2004 update included a goal to expand local markets and increase purchases of recycled-content products (p. 1- 7)
6. City Environmental Management System.
www.seattle.gov/environment/documents/EMPFinal1-02.pdf. In 1999, the City approved an Environmental Management System containing policies for Recycling and Waste Reduction and Sustainable Purchasing.
7. Green Purchasing Policy: City Purchasing also maintains a city-wide purchasing policy, which was first adopted by an Interdepartmental Environmental Team in 2003. This policy directs City Purchasing, of the Department of Finance and Administrative Services, and all City Departments to:
 - Encourage the purchase and use of materials, products and services that best align with the City's fiscal, environmental, climate change, social, community and performance goals;
 - Incorporate sustainability standards into procurement decisions;

- Empower Department and City Purchasing staff to be innovative and demonstrate leadership by incorporating progressive and best-practice sustainability specifications, strategies and practices in procurement decisions;
- Encourage vendors to promote products and services that they offer which are most suited to the City sustainability principles;
- Complement City ordinances and sustainability policies;
- Encourage and promote both local and national companies to bring forward emerging and progressive sustainable products and services, by being a consumer of such products and companies; and
- Communicate the City's commitment to sustainable procurement, by modeling the best product and services choices to citizens, other public agencies and private companies.

4. 2007 Green Purchasing Leadership and Education

1. National and Local Green Purchasing Programs: The City of Seattle supported national and local programs to promote, encourage and educate public agencies and City of Seattle department staff on environmentally preferable purchasing policies and products.

Presentations and National Forums: During 2007, the City participated and presented at the following national forums:

1. U.S. Communities Advisory Board, February 2007. Presentation and Discussion Panel.
2. National Institute of Government Purchasing, August 4 to August 8 2007. Hartford, Connecticut. Presentation and Discussion Panel.
3. National League of Cities, New Orleans, November 13 to November 17, 2007. Presentation.

National Green Knowledge Community: During 2007, City Purchasing joined TerraChoice Inc, to initiate a Green Knowledge Community hosted and sponsored by the National Institute of Government Purchasing (NIGP). The Green Knowledge Community provides a forum, resource and list serve to public agencies within the NIGP membership.

Responsible Purchasing Network: City Purchasing continued membership to the national Responsible Purchasing Network association.

2. City Department Education

Seattle Public Utilities, City Purchasing, and the City Purchasing Interdepartmental Green Team hosted a series of events for City department staff and other local public agencies:

1. City Purchasing hosted the annual City of Seattle Vendor Trade Show, with a theme of Environmentally Preferable Purchasing Products during 2007 on July 17 and July 18, 2007. Over 50 City department staff and other public agencies in Washington attended the event. The Trade Show hosted two presentations on Office Supplies, Remanufactured Furniture, and the City's Paper Cuts product. The Trade Show also hosted 50 vendors who marketed their environmentally preferable products directly to City and other public agency staff.
2. Seattle Public Utilities and the City Purchasing Interdepartmental Green Team hosted the March Facility Operations Workshop on March 28. The workshop addresses toxic products, proper pesticide use, green cleaning, recycling, and anti-idling. Participants included Property Managers, Facility staff, green building experts, and others. City Purchasing provided presentations on janitorial products. Craig Lorch (owner of Total Reclaim) spoke about computer and compact fluorescent lightbulb recycling.
3. City Purchasing and Seattle Public Utilities hosted the FSC Certified Wood Conference on June 12, 2007. There were over 50 participants from agencies throughout the region as well as vendors and City staff.
4. Bio Based Product Workshop: This workshop focused on bio based products and lubricants.
5. The City Purchasing Interdepartmental Green Team hosted two City-wide training sessions: Webinars training with twenty City department representatives on recycled office equipment sponsored by the Responsible Purchasing Network (RPN), and Webinars training with twenty City Department attendees regarding Green Fleets.

5. 2007 Green Purchasing Savings

Green Purchasing often results in direct savings back to the City and the community, compared to the traditional product options. City ordinance allows the City to consider a price preference of up to ten percent for similar products that are less environmentally preferable, however, the City does not exercise this price preference. The City instead provides the green standard as a minimum requirement of bid, or will score environmental options to select the winner.

The City recognizes community and regional costs that are not quantified on each purchase, but provide significant savings to the community as a result of a green product choice:

- Reduced energy costs and reduced need for new energy sources. Conservation and reduced use is the least costly energy resource;
- Reduced absenteeism of workers by avoiding chemical toxin exposures. The most recent study available has shown a six percent reduction in custodial time lost to chemical injuries (most recent study, 2001 - source: Workman's Comp Data compiled by JP4);
- Reduced lingering exposures to office workers;
- Reduced maintenance costs;
- Reduced waste and disposal costs – the cost of avoided landfill waste and avoided landfill facility building and demand is a significant savings which tends to be measured on community wide or regional costs, but is a product-specific savings;
- Freight and transportation—reduced greenhouse gas emissions and associated costs associated with greenhouse gas pollutants.

Although these benefits are not directly measured during product acquisition, the City recognizes these benefits to the local and regional community:

- Creating local market demand for green businesses
- Using local suppliers (transportation, packaging)
- Women and Minority Business leadership
- Encouraging commercial/residential markets
- Environmentally Certified Wood, Paper, Slag Cement, Carpet

Direct Savings: The City finds that many green products provide a direct dollar savings compared to the traditional product option. Examples of direct savings in 2007 included:

1. Remanufactured Toner cartridges: \$300,000 year savings.
2. Retread Tires: Per unit costs are 30 to 40% less than new.
3. Heavy equipment: total savings compared to traditional product was an estimated \$200,000 year.
4. Recycled Antifreeze: \$12,000/year in savings compared to traditional antifreeze.
5. Plastic Lumber: \$10,000 direct savings compared to wood. Maintenance costs and other life cycle costs offer additional savings.
6. Remanufactured Steelcase Compatible Furniture: 30% less than newly manufactured furniture for the same product.

6. Women and Minority Business Engagement

City Purchasing connects the opportunities for new and emerging environmentally-preferable product and services to women and minority owned businesses (WMBE) or historically underutilized businesses (HUB) in the local community. The WMBE community has been responsive and innovative. During 2007, the City developed early links between the HUB community and the environmental products and initiatives of the City.

1. Office Supply Trade Show: The Trade July, hosted by City Purchasing on July 17 and July 18, 2007, featured HUB vendors that have won City contracts with green office supply product lines.
2. Goats: The City contracts for goat grazing were awarded to a women-owned local business.
3. Remanufactured Laser Cartridges: The winning vendor was a minority-owned business located in Seattle that had a strong independent third-party audit test result.
4. Janitorial Products: The City of Seattle has awarded a contract to a local distributor for Green Seal Janitorial products.
5. Landscaping: Contract specifications have integrated comprehensive Landscaping and Pesticide considerations for every solicitation effort within that commodity range.
6. Deconstruction: The City has executed contracts to minimize solid waste and recycle valuable building materials.

The City will continue with goals for furthering these connections during 2008 and beyond.

7. Green Purchasing Acquisitions

A. New Product Testing and Adoption

1. **Nature's Broom:** The City Fleets Division implemented a new pilot test for "Nature's Broom" as a preferred substitute to manage hazardous material and oil spills. This product is a new, breakthrough technology for spill clean-up. The Fleets and Facilities Department was the first in West Coast region to test the product out, with very positive success. Due to the rarity of spills, the City has not been able to do long-term testing sufficient to declare a full adoption of the product.
2. **Victor Poison-Free Wasp and Hornet Killer:** This product is being tested to replace pyrethrin versions. Mint oil is the active ingredient. While pyrethrins are quite safe and break down quickly in sunlight, their overuse (e.g. in Raid, etc) is causing accumulations in stream and creek sediment. These concentrations are reaching toxic levels for the creatures that live in the mud, jeopardizing the food chain. Mint oil is preferable, very effective and has a generally pleasant odor.
3. **Soudal Soudaseal Caulk:** This is completely VOC (volatile organic carbon) free. Several varieties exist. Most caulks release some VOCs (and some release phthalates). It is effective and environmentally preferable.
4. **Gorilla PVC Cement:** This is being tested to replace two-part solvent-based PVC cements. This link (www.gorillapvc.com/solvents.html) explains the health and safety advantages of the NMP-based Gorilla PVC Cement. It is also a one-part system that will save time and is very effective.
5. **Giotto's Rocket:** (www.giottos.com/Rocket-air.htm): This small product can replace the canned air for dusting computer keyboards and electronics, which contain powerful global warming gases (up to 3,300 times as powerful as CO₂). The City is testing this substitute product.
6. **Sustainable Group Rebinders:** (www.sustainablegroup.net/): The first recyclable three ring binder made of recycled corrugated cardboard which is not only durable but one that could be recycled and reused. Each Rebinder is a minimum 35% post consumer recycled content and 100% recyclable.

B. Product Acquisition Standards

City Purchasing policy is to seek the most protective or proactive product and service standards that can meet business needs as a baseline specification for City acquisitions.

- City Purchasing reviews acquisition requests from City Departments and may advise a more preferable specification when available, to serve as a minimum product standard in solicitations. Seattle Public Utilities, Seattle Parks Department, and other City departments provide experts and advisory panels on such specification review.
- In certain solicitations, the City scores vendor responses about the environmentally preferable characteristics of the vendor offering, and the City may also request and score corporate commitment and practices.
- City contracts for goods and services mandates an Anti-Idling policy, which prohibits idling in the performance of City contracts except under certain conditions.

- City contracts for goods and services prohibit bio-accumulative toxins. The City specifies a list of approximately 50 prohibited PBT chemicals. The City requires the vendors to disclose such products if the vendor finds them essential to a product offering and the City must proactively exempt the acquisition from the prohibition.
- City contracts require that all vendors, including copy/print vendors, use 100% recycled paper and duplex print.

C. Ongoing Product Acquisitions

The City acquires a large variety of products and services that meet environmentally preferable standards. The most commonly acquired items are summarized below:

Commodity	Dollars Spent (\$)	Quantity Purchased	Percent Green (of total spent within the product line)
100% Recycled, Process Chlorine-Free Paper¹	\$350,000	102,936 reams	100%
Green Seal Certified or Zero VOC Paint²	\$8,211	551 gallons³	5%
Greener and Safer Janitorial Cleaners	\$354,500		
Recycled Content Janitorial Paper	\$266,800		86%
FSC Wood/ Plastic Lumber	\$16,120		5%
EPEAT Desktop Computers	\$2.6 million (May 2007- Dec 2007)	3,400 computers⁴	100%
Sub-compact sedans and Small SUV Hybrid Vehicles⁵	\$2.3 million	102 hybrids	84%
Biodiesel and Compressed Natural Gas Fuel	\$2.0 million	730,238 gallons	32%⁶
Greener Office Supplies	\$284,000 (Jan 2007- Dec 2007)		14%
Re-manufactured Cartridges	\$44,000		100%
Re-manufactured Furniture	\$340,000		
Goats	\$9,620.00		100%
Carpet Recycling	\$29,000	50,000 tons for Seattle & King County.	100%
TOTAL	≈\$8.5 million		

Notes:

- Some figures are rounded.
- Unless noted, data is from In-Web Vendor Utilization Reports (on contract). The In-Web system does not provide purchasing summaries for specific products listed on a single contract. However, phone calls to each vendor can provide product-by-product information.
- Purchases bought off-contract not included in calculations. Purchasing information is available only for goods bought directly by the City. If contracted entities purchase their own products (cleaners, janitorial paper, carpet, paint) as part of the contract, the city does not currently track those figures.

¹ Source: Pat Miller, SPU

² Source: Miller, Rodda, and Kelly-Moore Paint.

³ 58 gallons of zero V.O.C. Enviro-Coat (Kelly-Moore) paint; 18 gallons of Green Seal (Horizon) paint; 475 gallons of Acro Pure (Miller) paint

⁴ Source: Lance Fuhman, DOIT. Estimated based on average cost per computer

⁵ Source: Pat Eaton, FFD

⁶ This percentage is of gallons, not dollars.

1. Copy and Printing Paper - 100% Chlorine Free. During 2007, the City continued the Paper Cuts campaign and the ongoing standard for 100% process chlorine-free (PCF) paper in the City contracts.



Link:

www.seattle.gov/papercuts

Mayor's Executive Order: In 2005, Mayor Greg Nickels issued an Executive Order to mandate City wide adoption of 100% recycled content, post consumer PCF paper. The Executive Order also directed a reduction of paper consumption by 30%, through such actions as double-sided paper production and reduced printing.

Highlights: The City reduced paper usage by 24% from 2004 to 2007—a reduction from 135,097 reams to 102,936 reams. For each 1% reduction in paper consumption, the City saves \$2,882, and achieves impressive environmental results; 62 fewer trees, 64,606 fewer gallons of water, 300 fewer lbs of water pollutants, 7,074 fewer lbs of solid waste, 20,500 fewer lbs of greenhouse gases and other air pollutants, and 123,662 fewer British Thermal Units (BTUs) of energy.

The City's 24% reduction in annual paper use saves:

- \$69,000
- 1,500 trees
- 1.5 million gallons of water
- 3 million BTU's of energy

And prevents release of:

- 7,200 lbs of water pollutants
- 170,000 lbs of solid waste
- 492,000 lbs of green house gases and other air pollutants

Purchasing Contracts: The City purchases 100% recycled-content, 100% post consumer, PCF copy paper through a City and State of Washington contract. This paper is produced at Gray's Harbor Mill in Oregon.

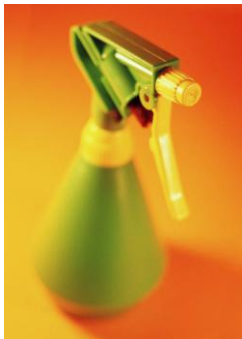
The City also acquires 100% PCF envelopes, forms and business cards as 100% PCF where available.

City contracts require that all vendors, including copy/print vendors, use 100% recycled PCF paper and duplex print.

2. Copiers. During 2006, the City conducted a proposal for copiers. Features of the winning products included:

1. Ability to preconfigure to duplexing enabled mode;
2. Tested, proven and guaranteed for 100% PCF copy paper;
3. Manufacturer receives machines at end-of-life, and remanufacturers virtually all the machine, and does not ship or dispose of used products off-shore;
4. Machines operate on remanufactured toner cartridges, and all cartridges are recycled.
5. Dealer provides take-back services for packaging, toner, staple cartridges, and other products.

3. Greener and Safer Janitorial Cleaners. During 2007, the City continued using Green Seal (GS-37) certified janitorial cleaning products. Green Seal is an independent, third-party non-profit organization that establishes standards of environmentally preferable products. Green Seal provides certifications for a range of cleaning and supply products. The City adopted all Green Seal standards, and has also mandated a specification with additional, stricter environmental criteria beyond the Green Seal product certification.



Link:

www.seattle.gov/environment/documents/GREEN%20VENDORS.pdf

Purchasing Contracts: The City awarded six contracts for multiple general purpose and restroom cleaners in 2003, and added multiple floor care and metal polish products 2004. These contracts are based on strict health and environmental criteria as well as product performance as judged by City janitorial staff. Some departments mandate use of green janitorial products exclusively and there is high satisfaction with the results.

Not all Green Seal certified janitorial products have proven to be effective in the wide variety of cleaning situations for City facilities and equipment. The City finds it necessary to work closely with crews that require cleaning supplies, to test out product options and select those that prove effective in each work situation.

Non-janitorial staff and offices also can purchase cleaners with this contract. The contract vendor list will be updated in 2008.

4. Janitorial Paper. One of the largest segments of the paper products industry is bathroom tissue and paper towels. Bathroom tissue and paper towels are used once, never to be used again. They cannot be recycled, thereby eliminating the potential for replenishing what has been lost. However, the purchase of tissue and towels containing 100% recycled material and as much post consumer waste as possible can reduce the impact of these short-lived items. Use of post consumer fibers reduces the impact on landfills by saving 3.3 cubic yards of space for every ton of paper that is diverted from the waste stream. Every ton of 100% recycled paper saves an estimated 4,100 kilowatt-hours of energy, 7,000 gallons of water and 60 pounds of air pollutants.

5. Lumber. During 2007, the City continued contracts for FSC Certified lumber, and added contracts for plastic lumber. The City promotes a goal of 20 percent Forest Stewardship Council (FSC) certified lumber. The City has established a contract to promote FSC Certified Wood, both for internal City purchases as well as capital improvement projects performed by Contractors. FSC certified wood has been grown, harvested, milled, and distributed using environmentally and socially preferable practices and is certified throughout the chain of custody. The purchase and use of such wood promotes sustainable products, provides assurance that sound forest management strategies are being followed which (1) minimize critical habitat loss and protect watersheds; (2) reduce water pollution to streams that can threaten salmon and other species; and (3) protect the biodiversity of the area; and (4) create opportunities for local companies. <http://www.fsc.org/en/>

Seattle Public Utilities Cedar River Watershed is an FSC certified forest. Some of the wood extracted from the watershed is then sent to a local FSC certified mill and utilized in City of Seattle projects.

The City also encourages and uses Plastic Lumber, as a long-lasting, durable alternative to conventional hard woods. The Plastic Lumber has shown a life cycle savings for reduced maintenance costs. The City has established a contract for Ecoboard, which is lumber is made from 100 percent recycled and carefully graded polyethylene which is non-toxic and stable. It is un-reinforced, strengthened with chopped glass fibers or with high performance glass fiber rebars.

6. Computers. The City has a centralized computer desktop standard, and acquires all computers through a centralized contract. The technology standards are established by the City's Chief Technology Officer and incorporate the most advanced environmentally preferable specifications that are suitable to City business needs.

During 2007, the City researched adoption of the new Electronic Products Environmental Assessment Tool (EPEAT) computer standards. The EPEAT standards are established by the Environmental Protection Agency (EPA) and managed by the Green Electronics Council. EPEAT is a comprehensive tool for rating PCs, laptops and monitors using specific criteria. A range of existing environmental standards and requirements are integrated into the EPEAT standard, including: the U.S. Energy Star energy efficiency requirements; EPA's Plug-In Guidelines for Materials Management; Rechargeable Battery Recycling Coalition recommendations; Coalition of North Eastern Governors Model Toxics in Packaging Legislation; European Union (EU) restriction on hazardous substances; EU Waste Electrical and Electronic Equipment (WEEE) requirements; EU battery directives; and various global environmental labeling standards.



Link:

www.seattle.gov/tech/free_stuff/npo_giveaway.htm (recycling/ donation site for the City)

Highlights: All desktop computers purchased met bronze level of the Electronic Product Environmental Assessment Tool (EPEAT) as of late 2007.

Computer Contracts: In December 2007, the City's standard computer changed to Hewlett Packard (HP) in order to convert the City computer fleet to the highest grade EPEAT computers. HP machines are Energy Star compliant and have 80+ power supplies. (80+ power means that it is at least 80 percent efficient whereas current power supplies range from 65-75 percent efficiency). The change will save the City more than \$2 million over four years and result in considerable energy savings.

In 2008, standard City computers purchased from HP will meet the gold level of EPEAT. The City's contract also includes provisions for packaging waste-reduction and for responsible recycling at end-of-life. Final action and contract modifications will be in July of 2008, as the new EPEAT requirements become effective.

7. Hybrid vehicles and reduction of Vehicle Emissions. City Purchasing contracts have a vehicle anti-idling requirement, requiring City vendors and contractors to adopt anti-idling practices that reduce greenhouse gas emissions.

As of 2007, approximately 38 percent of the City's fleet of 3,729 vehicles ran on either biodiesel, electric, compressed natural gas, or are hybrid electric/gas. In 1999, the City used 2.4 million gallons of fuel. In 2007, the City used approximately 2.34 million gallons of fuel—a reduction of about 2.5 percent even though the City's fleet increased 14.7 percent over four years⁷.

Hybrids 347 City vehicles are now hybrids. 84 percent of new subcompact or SUV light-duty vehicle purchases are now hybrid. The City used about 1.6 million gallons of petroleum fuel in 2007, which was 68.8 percent of the total fuel used.

Electric Forty-six off-road vehicles are electric (such as Segways and scooters). Last October, the City of Seattle joined with the Port of Seattle, King County and the Puget Sound Clean Air Agency to test the performance of plug-in hybrid electric vehicles (PHEV) in an urban area.

Plug-in Hybrids With funding from the Department of Energy's Idaho National Laboratory (INL) matched by the participants, 13 Priuses are being converted to plug-in hybrid electric vehicles (PHEV). The total cost is \$156,000. Four of the vehicles will be operated by the City. Expected greenhouse gas emissions from the PHEV Priuses in this demonstration project are up to 50 percent less than conventional Priuses.

Seattle City Light is testing the A123 Plug-in Hybrid conversion, which is a 100 MPG plug-in PHEV conversion module that enables PHEV's to go over 40 miles in EV mode. The patent pending technology is a breakthrough technology, using, ultracapacitors to buffer and protect lithium batteries from excessive resistive heating during acceleration, a problem that some plug in systems have had. More detail is available at www.seattle.gov/mayor/newsdetail.asp?ID=8496&dept=40

Seattle also helped to develop and launch a new tool to promote and support green fleet management by other public and private fleet operators in the region. This tool is available at www.psgreenfleets.org

⁷ In 2003, the fleet size was 3,250.

8. Alternative Fuels.

Biodiesel In 2007, the City used about 700,000 gallons of B-20 biodiesel and 19,000 gallons of B-40. The City has approximately 1,000 diesel-powered vehicles and all but 3 percent run on B-20 or B-40 biodiesel.

Compressed Natural Gas (CNG) Thirty-one vehicles are powered by CNG. In 2007, the City used about 12,000 gallons of CNG.

9. Bio-based Oils



Link:

www.seattle.gov/environment/clean_air.htm

Highlights

The City began a project to use vegetable-based hydraulic and other oils for bar-and-chain and shop uses. Example products are:

- Terresolve Envirologic 39 Penetrating/Lube Oil
- Renewable Lubricant Bio-Mist EP Cutting Oil
- Stihl Bio-Plus Bar and Chain Oil
- Terresolve Envirologic 268B Bar and Chain Oil

Purchasing Contracts

A pilot project is scheduled for 2008.

10. Office Supplies. During 2007, City Purchasing initiated a small pilot green office supply conversion program. City Purchasing conducted a workshop in October 2007 for all City departments, to train them on City vendors that provide green office supply products, and to highlight key product offerings. City Purchasing worked with Department of Housing to initiate a test program for 'Office Supply First Choice' pilot in preparation for introducing a city-wide standard and contract for recycled office supplies during 2008. The pilot program features recycled and low-toxic office supplies as the default for City purchasers.

Orders for green products were \$ \$284,000.00 spent by the Department, representing sixteen percent of office supply purchases.

City Purchasing also committed to rebidding the office supply product contracts with local suppliers, during 2008, with a priority and First Choice requirement for green products as a contract specification.

11. Toner Cartridges. During 2007, City Purchasing rebid the City laser printer supply contract incorporating a first ever remanufactured-only specification. City staff no longer have the option to buy "new" product. The City purchases re-manufactured laser cartridges under contract for laser printers, fax machines, ink-jet printers. The City finds that purchasing re-manufactured toner cartridges (cartridges that have been used at least once and then disassembled, cleaned and had worn parts replaced and toner refilled) saves buyers money while helping the environment. Re-manufactured cartridges have reduced

City cartridge costs from 30 to 50 percent below that of a new cartridge, depending on the individual cartridge.

The contract requires re-manufactured toner cartridges that have been fully re-manufactured to specifications exceeding original equipment manufacturer's (OEM) cartridge standards. The specifications require the contractor provide verification that the company or has a densitometer, test printers and applicable operation procedures to perform on-site toner cartridge testing. The bid requires specific reduced packaging with recycled materials, and an end-of-life return process.

The contract product quality has proven highly reliable. Required third-party testing of the proposed product assure the quality of the product and meets the City's life cycle standards.

Experience with the contract is proving highly successfully, with defect rates less than the industry standard of 3% that is maintained for new products.

12. Carpet. The City purchases carpet through a cooperative purchasing contract hosted by the Western States Contracting Alliance (WSCA). The City also uses State of Washington contracts for installation services. The City's carpet standard requires acquisition of one of the various recycled-content carpet or flooring products available through the WSCA contract.

13. Re-furbished Furniture. In 2007, City Purchasing established a vendor contract with a women-owned business that allows City departments to purchase the furniture compatible with the City Steel-case standard of re-manufactured and re-conditioned office furniture, rather than furniture made from new materials.

14. Goats. The City of Seattle uses goats as an alternative to herbicides for weed reduction on steep hillsides and remote locations that are difficult for workers to access. Goats eat a large variety of vegetation including: Blackberries, Ivy, Scotch Broom, Knot Weed, Morning Glory, Holly, nuisance trees and saplings, Nettle, Thistle, grasses, and Horsetail. They have a low impact on the environment due to their cloven hooves, they are natural climbers and love steep slopes and uneven terrain, and they go where machinery and other modes of brush removal are not allowed to go and are cost effective in many situations. They are also walking fertilizer factories. The goats have a strong positive community response.

There are two Washington companies that provide goats. Seattle hired a company named Rent A Ruminant LLC located on Vashon Island with a herd of over 100 goats. Many of the goats are rescue goats. This is a women-owned business started three years ago with only ten goats and now the herd has grown to over one hundred goats and sheep. The company brings goats to the location to eat a wide range of vegetation, such as blackberries, ivy, and other invasive species. The company varies the number of goats to the scope of the project. The minimum herd size dispatched to an area is 60 goats and 3 days. The area must be at least 8,000 square feet and have access for a 40 foot truck and trailer. The owner stays on-site to care for the herd. The 60 goats can eat about 1/4 acre (10,000 sq feet) in about 3-5 days. Electrified fencing is used which keeps the goats in and dogs and other predators out.

The City most recently used the goats at King Street for a 12,000 square foot area to remove blackberries and other invasive vegetation.

15. Paint. During 2007, the City continued to have low VOC paint available for City crews. The City has available for purchase on contract very low or zero VOC, Green Seal Certified paint through Rodda Paint, Kelly-Moore, and Miller Paint. Kelly-Moore also offers 50% recycled-content paint.

16. Latex Paint Disposal. City Purchasing, on behalf of Seattle Public Utilities (SPU), awarded a unique contract for latex paint recycling. The City of Seattle has a strong collection program for household paint. The large volumes collected allowed the City to bid and award a contract that specifically accepts and recycles the latex paint as a particular stream of paint. Because of the large volumes of collected paint, the City gets significantly better pricing. Seattle is the only City in Washington that has the economy of scale where we obtain price discounts for the recycling paint.

The paint is bought by the recycler. The recycler uses the paint for several recycled purposes. First, the recycler may use the paint to make cement as part of “beneficial re-use.” This is not for alternative energy (i.e. they are not using it to burn and create new energy), but to directly produce a new product. In addition, some of the better quality latex paint that arrives for recycling can be cleaned up and remade into a good latex paint, so it can actually be re-used as latex paint. This allows an even higher, better re-use of the waste stream.

17. Slag Cement. During 2007, the City continued use and promotion of slag cement as a substitute product in some contracts and construction projects. Slag cement is a greener concrete product. Blast-furnace slag is processed to create slag cement, which is used in concrete. Using slag cement reduces the industrial by-product that would otherwise be landfilled, and conserves a virgin manufactured product (Portland cement). Slag cement reduces air emissions at the blast furnace, and decreases the overall embodied energy required to produce cementitious materials in concrete. Slag cement in concrete significantly reduces carbon dioxide emissions, a greenhouse gas. www.slagcement.org

18. Facility Chemical Use

Link: www.seattle.gov/environment/chemical_use.htm



Highlights

Thirty-six chemicals used by five SPU facilities were selected for priority replacement, 62 for use with extreme care. Three products with carcinogenic and reproductive toxins and nervous system effects are no longer used.

To accomplish this, a team of SPU employees met to discuss high-hazard products and their uses, and found less-toxic replacement products. This program, known as the Toxics Reduction Effort, aims to:

- Offer less-toxic alternatives.
- Prepare a ranked list of chemicals that SPU will not use or will use with extreme care.

- Control purchasing, acquisition of samples, and vendor practices relating to high-hazard chemicals, using warehouse controls, product safety reviews by staff, and new departmental policy and procedures.
- Develop knowledge and reduce risk among affected employees.
- Reduce the number and severity of products posing chemical hazards to SPU employees.
- Consider future needs such as reducing toxics used by contractors.

8. 2008 Initiatives

During 2008, City Purchasing and City Departments plan to initiate new technologies and product lines.

1. Pest Control Management



Link:

www.seattle.gov/environment/pesticides.htm

Highlights:

Seattle ranks pest control products based on toxicity and restricts use of pesticides citywide. A number of Parks facilities are pesticide-free.

- Only 3 percent of the 2,310 acres of developed parkland is treated with pesticides in the course of a year. (Parks & Recreation manages the largest amount of City-owned acreage — 6,300 acres.)
- Less than 10 percent of the 30,000 street trees maintained by city crews are treated with pesticides.
- Eighty-five percent of the 5,000+ acres of rights of way, including 550 miles of transmission line corridors are pesticide free and use of chemicals is limited to treatment of tree stumps (which often must be left in place to stabilize the soil).

In 2008, City Purchasing will issue bids for a new pest control approach at City facilities. The new contract will require Bidders to provide a comprehensive Integrated Pest Management (IPM) Program for City of Seattle buildings and facilities, and occasional on-call Pest Management Services. Alternatives to toxic chemical eradication will be required as the first line strategies for pest control and reduction. Such strategies as vacuuming, sealing of entry points, trapping, and similar will be required; chemicals will need to comply with Green Seal standards. The City spends about \$75,000 annually on pest management. Fleets and Facilities is the primary user with an estimated usage of \$35,000. Seattle Center, Seattle City Light, Parks and Seattle Public Utilities have estimated annual usage of \$10,000 each in pest control.

2. Green office supplies. During 2008, City Purchasing will initiate new contracts, with the objective of significant converting the City to green and environmentally preferable office supplies. The contracts will implement best practices for the City, will serve as a model for other public agencies, private companies and citizens, and to support local green product vendors and local product innovations.

Fourteen percent of the office supply acquisitions in the City are green products (using a generic definition of green). City Purchasing seeks to mobilize specifications that enforce green products as an automatic default, raising our percentage to 25% consumption of green products citywide by 2010. The City spends about \$2,000,000 annually, and City Purchasing hopes to convert \$500,000 to green products by 2010.

The City Purchasing rebid will replace two expiring contracts. The 2009 bid will emphasize providing and supporting environmental preferences, training, outreach, and education to City employees. The bid will prioritize green office supply products as a first priority product list, requiring departments to select and purchase if a green product if one is available.

The vendor will initially name the products the vendor considers "green" although the contract will require products manufactured using recycled content materials, recycled as part of their product life, or manufactured with reduced-toxic materials (whether toxins, reduced green-house gas emissions), unless the vendor provides another definition acceptable to the City. During the contract, the City intends to review the definition and/or the product offerings with the Vendor to further fine-tune the product list.

The City will require bids that show reduced and environmentally preferable packaging, and reduction of transportation impacts, such as biodiesel shipping or combined delivery. The City also will seek the bid to include unique items that are manufactured locally or regionally with unique environmentally-preferable characteristics, and requires the vendor provide such products to all customers that order from this contract. The Contract will continue to enforce the City standard for Grays Harbor 100 PCF paper, and requires the bidder to offer the paper to the City of Seattle, and other public agencies that piggyback from this contract.

3. Deconstruction and salvaging. During 2008, the City will initiate a new pool of contracts for deconstruction, with the goal of keeping usable building materials out of the waste stream during removal or remodeling of buildings. The City intends for the selected contractor(s) to first reuse and salvage buildings and building materials from City demolition projects, and then considers recycling of remaining debris, and as a last resort landfill. These contracts are intended to replace the traditional debris hauling contracts.

In July 2007, the City Council adopted Resolution 30990 establishing new recycling goals for the City of Seattle and providing direction on solid waste facilities and waste reduction programs, including Construction and Demolition (C&D) waste. The resolution eliminated plans to construct a third transfer station and a city-owned intermodal facility in favor of relying on the North and South stations to provide all of the municipal solid waste (MSW) transfer within the city and contracting with private companies for the intermodal handling and shipment of waste. The resolution also prescribed a number of waste reduction strategies that influence the C&D waste stream, including: modification of the City's current demolition permit to emphasize salvage and reuse; development of developer incentives (including a fee deposit) for waste reduction, reuse, and recycled building materials use; assessment of incentives for private development of C&D sorting capacity; assess public development of a C&D sorting facility; and consideration of a prohibition of C&D recyclables as garbage at City stations.

City Purchasing will establish a pool of on-call contractors that the City can call upon when we have a need to demolish or remodel a structure for any number of reasons. Most projects would involve obtaining required permits, removal of any asbestos or other hazardous materials along with the removal of reusable building material and associated debris. In all cases the City would like the selected contractor to first exhaust opportunities for reuse and salvage of buildings and building materials from these projects, then consider recycling of remaining debris that does not have an opportunity for reuse and salvage, and finally to haul any final remaining

debris. The pool of contractors will consist of contractors that are foremost expert in deconstruction that can also offer, whether as a primary or subcontracting service, recycling and debris hauling.

The City has had a successful Debris Removal services contracts with local providers, however the contracts do not include deconstruction services or salvage of materials for reuse. The City also has a contract for the collection of surplus waste building material for reuse that will become part of this vendor pool. Therefore, the City is returning for a competitive bid to establish new contracts that can encompass the City priorities for deconstruction and encompass the remaining range of removal needs.

Citywide annual usage in the past has been approximately \$10K - \$100K in demolition (2 -6 times per year) and \$16K – \$100K in debris removal. The proposed contracts for collection of surplus material for reuse will be a zero cost contract, meaning the City does not pay for the reuse/recycling services. A number of departments use these services, including Department of Planning and Development, Fleets and Facilities, Seattle Center, Parks and Recreation and Seattle City Light. Most orders are between \$1,000 and \$35,000

9. 2008 to 2010 Goals

City Purchasing, SPU and City Departments will continue with ongoing work towards environmentally preferable purchasing standards, best practices, pilot and testing of products, and national contributions and innovations.

In addition, the following objectives are sought for 2008 through 2010, to advance the City's EPP initiatives in significant ways, and continue to elevate the EPP efforts towards the highest and best practices, innovations, and model both nationally and locally.

1. **Green Seal Certification Program.** City Purchasing and SPU will pursue the first Green Seal Purchasing Program Champion Certification awarded to a City by 2010.
2. **Office Supplies:** Convert the City departments to green office supplies, moving from current utilization of 14% to 25% by year-end 2010. Use mandatory contract specifications, automatic substitution features, vendor-sponsored education and training initiatives, and vendor reporting to track individual department achievement rates by 2010.
3. **Measurements:** In concert with the Green Seal review and consultation, City Purchasing and SPU seek additional product consumption measurements that can meaningfully promote, encourage and measure success at converting to green product choices in the City.
4. **Social Equity Pursuits:** Between 2008 and 2010, City Purchasing, SPU and other City Departments will:
 - Identify new and emergent products available from local WMBE vendors, and pursue promotion to City employees, connect the WMBE Green providers to the City end-users, and create contracts for purposes of testing and pilot projects.
 - Provide expertise, resources, education and training to the WMBE community to promote development of the capacity of WMBE firms to incorporate environmentally responsible purchasing and to pursue environmental acquisitions by the City. Tabor 100 will be a key partnership in hosting and

sponsoring such opportunities with the City, and will be a principal partner in the City initiative.

- Require primes on either purchasing, consultant or public work contracts to use local City vendors for the products or services that the prime needs to use to fulfill the City contract, so long as the local City vendor honors the City contract pricing to the prime. Purchasing would first work to incorporate WMBE vendors with green product or service awards. Examples include: requiring prime contractors to use Grays Harbor 100 PCF paper, or one of the City Deconstruction contract vendors that meet City specifications.
5. **Web Page:** Update the City Purchasing Web site and the Inweb page with green purchasing guides and contract information. Consolidate the City department references onto the single Green Purchasing page.
 6. **Leadership:** Continue national and local leadership, providing workshops for buyers and vendors, and other local public agencies.

10. Green Team and Contacts

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