

CITY OF MOSCOW, IDAHO  
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# CITY OF MOSCOW PURCHASING

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## SUSTAINABLE PURCHASING GUIDELINES



# City of Moscow Purchasing Analysis

## SUSTAINABLE PURCHASING GUIDELINES AND RECOMMENDATIONS

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# City of Moscow Purchasing

## SUSTAINABLE PURCHASING GUIDELINES

*“If not us, who? If not now, when?” ----- John F. Kennedy*

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### INTRODUCTION

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This document is meant to help guide City employees and residents of Moscow make more sustainable purchasing choices.

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## SUSTAINABILITY

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The term “sustainability” refers to making decisions and operating in a way that meets the needs of the people now, without compromising the ability to meet those needs in the future. There are many definitions of sustainability, a few examples:

The most cited definition of sustainability was coined by the Brundtland Commission in the Report of the World Commission on Environment and Development.

“Sustainable Development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs”<sup>1</sup> (Brundtland Commission, 1983)

ICLEI, Local Governments for Sustainability

“A sustainable community is defined as one that maintains the integrity of its natural resources over the long term, promotes a prosperous economy, and hosts a vibrant, equitable society” (ICLEI, 2007).

J. Diers explains that the idea of sustainability is already in unwittingly in practice in many places in *Neighbor Power: Building Community the Seattle Way*:

“In communities, people care for one another and the place they share. Just as they value heritage, communities are mindful of future generations. They are also more self-sufficient and less reliant on outside resources. ‘Meeting present needs without jeopardizing future resources’ is not only a common definition of sustainability; it is the goal of empowered communities” (Diers, 2004, p. 171)

Whatever definition is used, there are common themes that are represented in all of them.<sup>2</sup> The following list is from Sowell, H., Whitman, K. (2007) *A Short Course on Sustainability Assessment: Starting Your Sustainable Future*. Washington State University.

- 1) A concern for the persistence of future generations. Communities need to ensure that future generations will be able to meet all of their needs and maintain quality of life.

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<sup>1</sup> Report of the World Commission on Environment and Development: Our Common Future. The Brundtland Commission began the sustainability movement in 1983 through the United Nations. The commission convened to look into the decline of vital ecosystems, human health, and the impacts on social equity and economic vitality.

<sup>2</sup> This list was formulated by Heidi Sowell and Kara Whitman in their Short Course on Sustainability Assessment. Soon to be an extension course through Washington State University.

- 2) Attention placed on the “carrying capacity” of the earth. Carrying capacity, while very difficult to measure, refers to the maximum population of which a particular ecosystem or habitat can support. Communities must ensure that the resources that are used can be used indefinitely by man, as well as by the nature world.

*The average American has an ecological footprint that requires more than 12 acres of land to support their lifestyle. To determine what your impact on the carrying capacity of the earth, go to <http://www.myfootprint.org/> to determine your ecological footprint.*

- 3) A holistic understanding of the connections between the environment, the economy, and social equity. Communities need to make decisions that look at all impacts from environmental considerations, to social, human health, and economic considerations.
- 4) Consideration of an equitable distribution of wealth and goods. Communities should strive to have a high quality of life for its entire population.

Municipalities are creating many new and innovative ways to move towards this greater goal of a sustainable future. One such way that they are accomplishing this goal is through the renovation of traditional purchasing practices. The following sections of this report will explain the principles and benefits of sustainable purchasing and outline best practices to use when procuring goods and services. This report will also analyze current purchasing decisions and procedures within the City of Moscow and give recommendations for the future implementation of more sustainable and environmentally preferable purchasing.

*“Achieving sustainability is not primarily a technical or scientific challenge—although there is much to learn about how ecosystems work and respond to human activity. Nor is the challenge merely to manage our resources more effectively although there is much room for improvement in that, too. Rather, it is about dealing with people and their diverse cultures, interests, visions and priorities, and needs” (Cormick et al, 1996)<sup>3</sup>*

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<sup>3</sup> Cormick, G. et al (1996) *Building Consensus For A Sustainable Future*. Ontario: National Round Table on the Environment and the Economy.

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## SUSTAINABLE PURCHASING

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There has been a societal shift in the perception of the need to protect the natural world and the connection of the natural world and its processes to overall human well-being. Sustainability seeks to provide for the now as well as the future. In order to do this, municipalities need to look at the connection between their widely accepted practices and the impact they have on environmental systems and social equity at home and around the world. This connection can be most easily tackled in the purchasing decisions and procedures that are utilized at home, in business, and in municipal government. Traditionally, procurement decisions of goods and services are made on lowest immediate cost that has the required performance standards. Communities need to look beyond the traditional economic model of supply and demand when procuring goods and services; giving economic value to the less tangible impacts, such as product life cycle cost, or impacts on waste produced (Silberstein and Maser, 2000). Sustainable purchasing is the purchasing of a product and service that considers more than the traditional criteria, looking at the environmental and social factors as well as economic, and health impacts that are associated with the purchase. This means looking at the production, use, and disposal of that product or service; including what the product is made of, where those materials came from, and how will they be disposed of at the end of its useful life; this can also include determining whether a purchase should be made in the first place. Sustainable purchasing intends to decrease purchasing of products that have a negative impact on the natural and human world, and move towards the use of products that are more environmentally and socially preferable. Many businesses and municipalities around the U.S and the World are recognizing the benefits of more sustainable procurement practices and have begun to implement strategies that reduce the environmental, health, and social impacts of purchasing and the use of those purchases, as well as utilizing techniques to reduce or eliminate the waste associated with those products and services.

*Life Cycle Cost:* This refers to an evaluation technique that includes the initial purchase price, shipping costs, training costs, cost of use over the products lifetime, and the cost of disposal of the product at the end of its usable life (MMD, 2007).

The City of Moscow has recently joined the world-wide effort to reduce CO<sub>2</sub> emissions; taking the needed steps to purchase more sustainably will have an overall positive impact on the reduction of these emissions.

Sustainable purchasing is an important step that the City of Moscow needs to take in order to make better choices and will have a positive impact on the local economy, the health and well-being of the community, and the Municipal budget. According to GVRD SmartSteps: Sustainable Purchasing Guide, every purchasing decision the city makes has environmental, social, and economic implications associated with it, these include (GVRD SmartSteps, nd):

- ✿ Consumption of raw materials and the emissions and energy used to process and manufacture the product;
- ✿ Labor practices of the company or manufacturer

that is being purchased from;

- ✦ Location of the company or the manufacturer and the distance traveled to receive product or service;
- ✦ Energy and expenses needed to use the product or service; and
- ✦ Waste associated with the product, including packaging, maintenance, and disposal of the product at the end of its usable life.

### Greening the Government

Executive Order 13101, *Greening the Government*

*Through Waste Prevention, Recycling, and Federal Acquisition*, mandates federal agencies to identify and purchase environmentally preferable products and services. It defines them as: "...products and services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. This comparison may consider raw materials acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance, or disposal of the product or service (EPA, retrieved Aug. 3<sup>rd</sup>, 2007)"

Sustainable purchasing looks at all procurement and procedures within the municipality from the products and services that are used on a regular basis, to the ones that are more departmental specific. Common items that are discussed in sustainable purchasing in municipalities include, but are not limited to products and the associated services of: paper products (copy paper, envelopes, folders, legal pads), office equipment, outdoor furnishings (lumber), printing (services, ink, paper), fleet vehicles (motor oil, anti-freeze, parts, tires, traffic control, fuels, manhole adjusting rings, road aggregate, etc.), and grounds and facility maintenance (mulch, seeding, ice control, fencing, flooring, paint, weatherization, cleaning), (EPP).

*Sustainable purchasing is important for everybody – through better purchasing choices, the municipality can continue to reduce its negative impacts on environmental and social systems – both locally and globally...Sustainable purchasing helps to influence the market, encouraging businesses to offer more innovative and responsible options at lower prices. Finally, done well it can help to support local economic development, and promote healthier communities (City of Whistler, 2006).*

Implementing sustainable purchasing measures in the City of Moscow will decrease the waste that will ultimately go to the landfill, reduce the environmental impacts that Moscow has on the World, help make Moscow a safer and healthier working environment, and reduce emissions that are created by City procedures and practices. By utilizing social, environmental, and economic criteria in unison to make purchasing decisions the City of Moscow can become a more environmentally and sustainably responsible community.

## BENEFITS OF SUSTAINABLE PURCHASING

<u>Bottom-Line/Economic</u>	<u>Compliance and Risk Avoidance/ Environmental Impacts</u>	<u>Enhance Image/ Community Social Cohesiveness</u>
<ul style="list-style-type: none"> <li>✦ Achieve best value for the money (considering Life cycle costs)</li> <li>✦ Cost avoidance</li> <li>✦ Less Waste Management Fees</li> <li>✦ Lower operating costs</li> <li>✦ Stimulates the market for sustainable technologies</li> </ul>	<ul style="list-style-type: none"> <li>✦ Easier compliance with state and federal regulations</li> <li>✦ Reduced health, safety, and liability risks</li> <li>✦ Cleaner air and water</li> <li>✦ Reduced demand on local landfill</li> </ul>	<ul style="list-style-type: none"> <li>✦ City can demonstrate commitment to sustainability</li> <li>✦ Improve public image</li> <li>✦ Enhance trust of community on the city's use of resources</li> <li>✦ Improve employee and community health</li> <li>✦ Enhanced local economy</li> <li>✦ Help the US meet international standards</li> </ul>



# PURCHASING GUIDELINES

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## GENERAL SUSTAINABLE PURCHASING GUIDELINES

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This section provides the steps to making a sustainable purchase, the guidelines for more environmentally and socially responsible choices on specific types of products and services.

*Reduce.....Rethink.....Reuse.....Recycle*

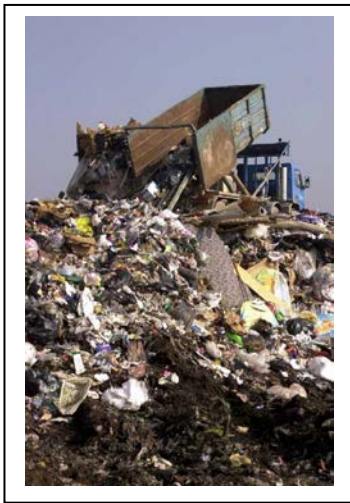




Figure 1: picture from [googleimages](#)

### STEPS TO SUSTAINABLE PROCUREMENT CHOICES

- ✿ **Step 1:** Have the appropriate steps been taken to reduce the usage of products and services where possible? Ensure that the products and services are definitely needed. By altering practices a community can significantly reduce the amount of products and services that are required.
- ✿ **Step 2:** Rethink purchase by assessing the need to procure the product or service. A great way to reduce the impact that purchasing has on the environment is by reducing the quantity of purchases the community makes. This will also make more money available for purchasing the more preferable environmentally thoughtful products for those purchases that are necessary.
- ✿ **Step 3:** Consider alternative ways to meet the desired need. Explore other options such as renting, leasing, borrowing, second-hand, salvaged or reclaimed. When practical, the City's needs can be met in ways that do not require the purchase of a new product; these should be considered in order to reduce the products that are purchased within a community.
- ✿ **Step 4:** Evaluate the quantity and the qualities of the purchase. Sustainable purchasing is about making purchasing decisions that look at the environmental, social, and economic impacts. In order to assess a product to this extent, more than the price needs to be considered. First, is the appropriate quantity being purchased, to avoid excess? Secondly, what are the environmentally and socially preferable attributes of the

purchase? Giving Preference to products that are or contain things like recycled content, fair-trade products, products from minority owned businesses, products from locally owned businesses, reduced health risks, low emissions product, reduced or no packaging, etc. These qualities can often be found easily in supplier catalogs, and many companies are beginning to advertise the environmental qualities of their products. While these qualities are extremely important in sustainable purchasing; budget and performance standards must also be considered. Last, but not least, the life expectancy, and impacts of disposal of the product must be evaluated, considering the recyclability of the product, and the cost of owning the product and the cost of disposal at the end of its usable life. This type of analysis can be done through a life cycle cost assessment, to determine the real cost ownership rather than the basic initial purchase price.


 **Step 5:** Procure the product or service. Examine all the information from the previous steps and make a purchase. This purchase should follow all rules and regulations of the community, and meet or exceed the expectations of the communities purchasing policy if one exists.

 **Step 6:** Track the sustainable qualities of the products and services that procured.


**Environmentally preferable Products will consider the following**


([www.portlandonline.com/omf/index.cfm?c=43987&](http://www.portlandonline.com/omf/index.cfm?c=43987&), retrieved 6/13/07):

1) Energy Efficiency

 Look for the Energy Star Logo for products such as lighting, windows, appliances, and electronics, etc. ([www.energystar.gov](http://www.energystar.gov))


2) Recycled Content


 Look for Post-Consumer recycled content first, this means that the recycled content is from used items.


 Look for products that are refillable, rechargeable, or reusable.

 List “surplus” items within the city for other departmental use.

3) Non-Toxic

 Check labeling in supplier catalogs, much of the time companies will specify if “non-toxic” such as (“low-odor” and “AP Certified” Non-Toxic).

 Choose water-based products.

 Look for ingredients that you can understand.

4) Minimal/No and Recyclable Packaging

✘ Choose products that have no packaging, or has reduced packaging. Approximately 1/3 of solid waste comes from materials packaging (California Integrated Waste Management Board , 2007 retrieved from <http://www.ciwmb.ca.gov/Packaging/>).

✘ Choose products that have recyclable packaging such as paper and cardboard and avoid plastic.

5) Buy From Locally Owned Business When Possible


✘ Choose local food products from local suppliers and businesses for meetings and events. This is a great way to showcase sustainability efforts within the city.

✘ Buying local helps keep more dollars in the community while supporting locally owned business.

GUIDELINES FOR PRODUCTS AND SERVICES

# LIGHTING

## QUICK GUIDELINES CHART

LOOK FOR.....	AVOID.....
✓ Use natural light first and foremost when available	✗ The use of artificial light when there is sufficient natural light
✓ Compact Fluorescent (CFL), High-Intensity Discharge (HID), electronic ballasts, and LEDs, etc.	✗ Halogen and tungsten (Incandescent)
✓ Energy Efficient (with the lowest possible mercury content) look for energy star label 	✗ Radioisotopes, found in magnetic ballasts
✓ Long Lasting, find out lamp life before purchase.	✗ Short life lighting
✓ Take back or Recycled	✗
✓ Packaged in cardboard (preferably recycled)	✗ Packaged in plastic packaging
✓ Utilize occupancy and daylight sensors/manual dimming/timed lighting/ lighting network.	✗ Leaving lights on in unoccupied rooms
✓ Calculate total cost of ownership. (cost savings on energy costs and compare to initial purchase price)	<div style="border: 1px solid black; background-color: #e0ffe0; padding: 10px;"> <p>“If every home in America replaced just one incandescent light bulb with an ENERGY STAR qualified CFL, in one year it would save enough energy to light more than 3 million homes and prevent greenhouse gas emissions equivalent to those of more than 800,000 cars”                      (www.energystar.gov).</p> </div>

Lighting and light bulbs are a necessary part of city life. They provide artificial illumination and include such, but are not limited to, fixtures, lamps, indoor and outdoors signs, traffic signals, up-lighting for landscaping, electronics and appliances. Lighting is needed for accent, task, ambient and general lighting. Natural lighting should be used first whenever it is possible, it is free and easier to work in when sufficient light is available. This can be performed by a variety of types of lighting, such as incandescent, fluorescent, and LED. Incandescent lighting can contain tungsten or halogen, nitrogen and argon, as well as lead. Fluorescent lighting is filled with phosphor powder, a small amount of mercury and argon. The phosphors have the quality of “phosphorescence”, which means that they can maintain its glowing quality after exposure to light or electron bombardment. These types of lights are generally up to six times more efficient than the conventional incandescent light, and do not produce very much heat. UV light is created by colliding electrons with mercury and is changed to visible light by the phosphor powder. Compact fluorescent lamps and bulbs (CFLs) are a type of fluorescent light that is meant to replace the conventional incandescent light. Compact fluorescent lights “are available in a wide range of wattages (7 to 55) and color rendering indices (up to 85+ CRI) to suit a variety of needs. CFLs are currently available in different color temperature ranges (2,700 K to 5,000 K) to match incandescent and halogen lamp’s color temperature range (2,700 K to 3,000 K), as well as daylight (5,000 K). Dimmable CFL and ballast systems are now available from a

Did you know that using one Energy Star qualified compact fluorescent bulb (CFL) can prevent more than 450 pounds of greenhouse gas emissions and save an average of \$30 or more in energy costs over the lifetime of each bulb? ([www.energystar.gov](http://www.energystar.gov))

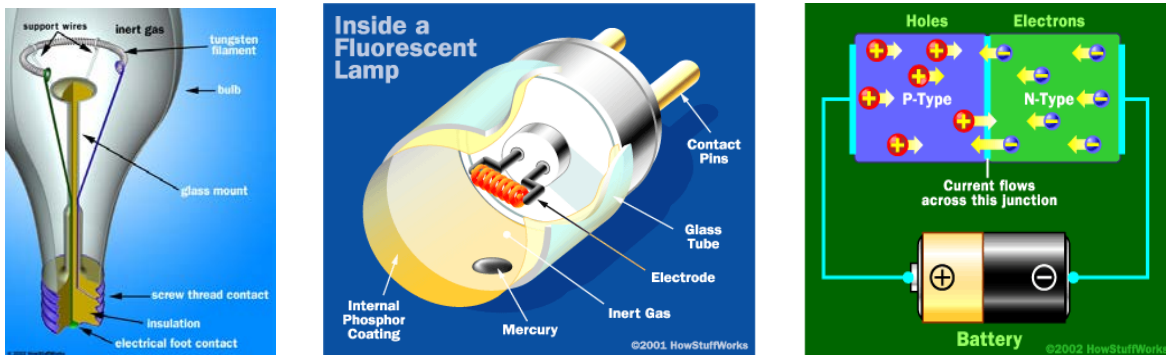


Figure 2: Images of the incandescent, fluorescent, and LED lights, from <http://home.howstuffworks.com>.

number of manufacturers at competitive prices. CFLs offer two significant benefits over incandescent lamps that are often overlooked: longer life (8,000 to 20,000 hours vs. 800 to 2,000 hours), and high efficacy (up to 75% less energy for the same light output) (<http://www.energystar.gov/>).

Many of the components included in lighting lamps are toxic, such as mercury and phosphors. Health risks will hopefully decrease as alternative forms of lighting are produced. A city can reduce these hazards by having the most up to date information about the options available and to act upon that knowledge. By altering choices made when

purchasing lighting the city can save money, reduce pollution, reduce labor cost, reduce the waste associated with replacement, reduce the risk to human health, reduce the extraction of materials from the earth, and lastly reduce the chances of hazardous materials being introduced into vital ecosystems.

SUSTAINABLE LIGHTING SOURCES:

<http://www.usa.philips.com/index.page>

To calculate the energy and financial savings (life cycle assessment) of exit signs go to the following web address and click on exit signs savings calculator.

[http://www.energystar.gov/index.cfm?c=bulk\\_purchasing.bus\\_purchasing](http://www.energystar.gov/index.cfm?c=bulk_purchasing.bus_purchasing)

For other life cycle calculators visit

[http://www.energystar.gov/index.cfm?fuseaction=search.showResults&q=calculators&spell=1&access=p&output=xml\\_no\\_dtd&site=default\\_collection&ie=UTF-8&client=default\\_frontend&proxystylesheet=default\\_frontend](http://www.energystar.gov/index.cfm?fuseaction=search.showResults&q=calculators&spell=1&access=p&output=xml_no_dtd&site=default_collection&ie=UTF-8&client=default_frontend&proxystylesheet=default_frontend)





INFORMATION:

Energy Star Products and information go to <http://www.energystar.gov/>

Information about the hazards of mercury and products that contain mercury:  
<http://www.epa.gov/epaoswer/hazwaste/mercury/con-prod.htm>

# ELECTRONICS

## QUICK GUIDELINES CHART

LOOK FOR.....	AVOID.....
✓ Energy Star	✗ High energy using electronics
✓ Third Party Certification by an “eco-label” organization such as EU  , Nordic Swan  , DoE  , Blue Angel  , etc. for more eco label information go to <a href="http://www.powerint.com/greenroom/">http://www.powerint.com/greenroom/</a> Power Integrations Green Room, retrieved 8/8/07	✗ Products that have not been certified by known ecological organizations
✓ Upgradeable and/or expandable (i.e. memory)	✗ Limited expansion capabilities
✓ Minimized, recyclable, or reusable packaging	✗ Plastic or other less recyclable packaging
✓ Low emissions (ozone depleting substances, noise disruption, dust)	✗ Noise and air polluting devices
✓ Leasing options and transferable warranties, and take back options when cost effective.	✗ Products that will involve a lot of waste for the city to deal with at the end of its usable life
✓ Paper use minimization (i.e. duplex)	✗ Single side copiers, with no duplex capability
✓ Warranties and maintenance contracts, these contracts should not exclude the use of %100 recycled content paper or other environmentally preferable options	✗ Warranties that exclude the use of recycled paper or other options
✓ Multi function/Multi user (i.e. printer, copier, fax)	✗ Single user

As of 2002,

- There were 500 million obsolete computers in the U.S. alone.
- 130 million cell phones are disposed of annually.
- 20 - 24 million TV's and computers are stored annually in homes and offices.
- Only 10% of unwanted and obsolete computers are recycled

Electronic waste or “E-waste” consists of discarded or broken electronic equipment or appliances. This type of waste is a major concern due to the fact that they are full of toxic substances and are not biodegradable. Electronic waste can be a resource for raw materials; however current recycling techniques have a very small profit margin due to the environmental hazards and restrictions. This has led to much of our electronic waste being shipped to countries where the labor is cheap and the environmental regulations are not very strict, or non-existent. According to The Basil

Action Network Report called Exporting Harm. E-waste contains many toxic chemicals. Circuit boards can contain lead which can cause severe damage to the central nervous system, blood, kidneys, and reproductive and brain development. Batteries and resistors can have amounts of cadmium which can accumulate in the kidneys. Monitors can contain lead oxide. Switches and flat screen monitors contain mercury which can cause damage to multiple organs and is easily distributed through water supply to other organisms. Hexavalent Chromium can also be found in electronics and can cause sever damage to cells and DNA. Other toxic substances that can be found in electronics include, but are not limited to, flame retardants, Polyvinyl chloride (PVC), phosphors, and Barium (BAN, 2002). The BAN report discusses the implications on developing countries due to the large amounts of E-waste that the US and other countries produce. Much of the U.S. E-waste is shipped overseas where they are dismantled at great health risk to the individual. Impoverished workers, often women and children take apart the electronics to salvage the usable materials, exposing themselves to the many toxic chemicals that are hidden within the plastic shell. The following image is from the BAN report, showing where E-waste is shipped. The report also stated that up to 80% of E-waste from the US is exported to impoverished countries



Figure 3 E-waste shipping to underdeveloped countries where environmental regulation is much less stringent if not non-existent. (Basel Action Network, Retrieved from BAN, 2002)



## STEPS THAT COMMUNITIES AND INDIVIDUALS CAN TAKE

- ✘ Drive the market to design cleaner, less toxic, recyclable, products by purchasing the most environmentally and socially responsible products and creating a dialogue with suppliers.
- ✘ Look at the specifics of each electronic purchase to determine if it is the best option, while still being fiscally responsible.
- ✘ Auction outdated, but viable electronics.
- ✘ Recycle as responsible as possible, and discuss options with recycling centers in the vicinity.
- ✘ Support laws that make companies responsible for the E-waste that is generated due to their products.

### Information Sources:

Power Integrations at <http://www.powerint.com/greenroom/> Information on more sustainable electronics purchasing

# OFFICE SUPPLIES

## QUICK GUIDELINES CHART

LOOK FOR.....	AVOID.....
✓ Post Consumer recycled and recycled content	✗ Products with no recycled content (when applicable)
✓ Reusable and Refillable products	✗ Disposable products
✓ Non-toxic (markers, pens, etc. look for AP certified)	✗
✓ Unbleached (PCF, TCF paper)	✗ Bleached paper
✓ Easily Recyclable at local recycling center	✗
✓ Minimal or no packaging	✗

Making a more effort to use more environmentally preferable products can make a big difference. Paper is not the only product used in the office that should be considered. There is much more. Purchasing more environmentally preferable requires thinking a little more outside of the norm. Office supplies include the supplies that an office uses that are essential to the functioning of the office excluding copy, legal, and printing paper such as pens, pencils, markers, folders, trays, bins, binders, tape, adhesives, envelopes, and many more. By minimizing use, reusing older items, recycling the products used, and purchasing recycled products a community can reduce potential environmental degradation from materials extraction and the introduction of hazardous substances, reduce the risk to human health, and reduce the waste that enters local landfills. By making a conscious effort to purchase products that have lower or no volatile organic compounds (VOCs) the city can the hazards from poor indoor air quality and reduce emissions further reducing the impact of green house gases. A few ways that each person can make a difference include:

Products that use chlorine-based bleaching can produce organic compounds like dioxin which is a human carcinogen and accumulates in fatty tissues of the body (City of Portland).

- ✗ Using a USB drive (“thumb”, “jump” drive) and rewritable CDs can reduce a significant amount of waste.
- ✗ Make message pads from used one-sided paper.
- ✗ Purchase supplies that are durable and can be refilled and use and reuse those office supplies to their fullest extent.

- ✿ Look for environmentally preferable products and products that reduce human health risks in every purchase. (corn-based plastics, low amount of adhesives, non-toxic, etc.)

“1.6 million single-use pens are discarded each year in the United States.” “By sending their printer and copying cartridges for remanufacturing, U.S. businesses could save \$1.5 billion and at least 100,000 barrels of oil annually” (Green Seals Choose Green Report, 2002).

#### Information Sources:

Green Seal Choose Green Report (2002). Office Supplies. Retrieved July 28, 2007 from [http://www.greenseal.org/resources/reports/CGR\\_officesupplies.pdf](http://www.greenseal.org/resources/reports/CGR_officesupplies.pdf)

Tyvek Envelopes from Dupont: A stronger yet lower weight recyclable product that can reduce shipping costs. <http://envelopes.tyvek.com/en/science/index.shtml>

# COPY / PRINT / WRITING PAPER

## QUICK GUIDELINES CHART

LOOK FOR.....	AVOID.....
✓ Highest possible Post Consumer Waste (PCW) recycled content	✗ Virgin Paper and low post-consumer recycled fiber content paper
✓ Unbleached (elemental chlorine free (ECF) and total chlorine free (TCF))	✗ Bleached/Chlorine
✓ Low base weight	✗ High base weight
✓ Paper containing wood fibers originating from Forest Stewardship Council Certified (FSC) forests	✗ Paper containing wood fiber from forest that are harvested unsustainably
✓ Paper containing non-wood fibers from agricultural residues, recycled fibers, and sustainable organic materials (straw, stalks, rags, denim, hemp, flax, bamboo, etc)	✗ Paper containing materials from unsustainable sources
✓ Paper with the appropriate brightness for the need	✗ Papers with a high chemical content

There are many ways that a community can reduce the impacts from paper production and use on the world. First the community can alter procedures involving the use of the paper, secondly the community can alter the types of paper products that are being used, and lastly they can alter the management of the waste associated with paper use. By using less paper and reducing the amount of copies made a community can reduce the amount of energy used and reduce emissions associated with electricity and paper production. Purchasing paper products that have high post consumer recycled content or that are made from materials derived from sustainable sources can significantly decrease the environmental impacts that are induced by paper use.

Did you know that two times the amount of energy is used to produce virgin paper as is used to produce the same amount of recycled paper? (PPRC)

There are often many concerns with the use of recycled content paper. One such concern is the dust that they contain, and the jamming of copiers. The Minnesota Pollution Control Agency ascertains that, “Paper jams are often unfairly blamed on the paper, but the performance of all copy papers will be affected by improper storage and handling. Here are some paper handling tips that will help prevent paper jams in your office printers and copiers” (MPCA).

- 1) Fan paper before loading the copier to reduce static.
- 2) Look for the arrow on the ream wrapper or package label. This indicates which side of the paper should face up when loaded into the copier or printer.
- 3) Avoid storing paper on the floor or in humid areas. Keep paper in its ream wrapper until needed — the wrapper has a plastic moisture barrier layer to keep out humidity.
- 4) Keep paper flat when it is not in a paper tray.

“A ton of paper made from 100% recycled paper, as compared to virgin paper, saves the equivalent of 4,100 kilowatt-hours of energy, 7,000 gallons of water, 60 pounds of air emissions, and 3 cubic yards of landfill space” (Green Seals Choose Green Report, 2002).

### Designing a More Environmentally Preferable Print Job

Adapted from the City of Seattle Print Job Checklist, and from the Minnesota Pollution Control Agency (MPCA)

#### Size

- ✓ Design for the least amount of paper used
- ✓ Size mailers according to postage costs

#### Volume

- ✓ Print double sided copies unless not appropriate
- ✓ Limit the number of copies
- ✓ Keep electronic files for reorders

#### Paper

- ✓ Use the minimum or higher post consumer and recycled content paper that is required by the City (this may change depending on cost and availability) Refer to paper policy for more details.
- ✓ Use the lowest paper weight that is suitable for the printing job
- ✓ Use uncoated papers
- ✓ Use chlorine free paper
- ✓ Limit the use of dark or brightly colored papers

#### Overprint Coatings and Treatments

- ✓ Use minimal coatings
- ✓ Use non-catalytic (easier to recycle) cured and water-based coating coatings
- ✓ Emboss instead of foil stamping to reduce waste

Coated or laminated materials are not easily recycled if at all, and contain substances that can produce air emissions.

### 🌿 Layout

- ✓ Reduce margins widths and font size when appropriate
- ✓ Print the maximum number of copies on a single parent sheet

### 🌿 Ink

- ✓ Use more environmentally preferable inks (soy, agri-ink, water-based inks)
- ✓ Look for colored inks that have no heavy metals
- ✓ Minimize ink coverage and use colored paper instead of saturating the sheet with ink
- ✓ Use inks with minimal or no volatile organic compounds (VOC's)

Colored inks can contain heavy metals that can be hazardous to your health such as lead, cadmium, mercury, and hexavalent chrome. Vegetable and water based inks are readily available and should replace hazardous petroleum-based products whenever possible.

### 🌿 Bindings

- ✓ Use reusable/recyclable bindings for large documents (3 ring, saddle or side stitched, plastic comb)
- ✓ Avoid glues and adhesives, or use water soluble glues

### 🌿 Labels (be aware of the chemicals in the adhesives!!)

- ✓ Use water-based adhesive labels
- ✓ Print mailing information directly on the envelope or the brochure instead of using a “stick” on label

### 🌿 Mailing

- ✓ Update mailing lists regularly
- ✓ Mail only the target audience
- ✓ Use business reply self-mailer surveys and response letters to reduce envelope use and costs

#### INFORMATION SOURCES

Minnesota Pollution Control Agency (MPCA)


<http://www.pca.state.mn.us/oea/epp/copypaper.cfm#handling>

To calculate the life cycle impacts of different grades of paper go to

<http://www.environmentaldefense.org/papercalculator/>

# WOOD AND LUMBER PRODUCTS

## QUICK GUIDELINES CHART

LOOK FOR.....	AVOID.....
✓ Reclaimed or Salvaged Wood	✗ Virgin lumber
✓ Wood from Certified Sustainable Forests such as FSC certified. 	✗ Lumber types that are considered endangered plants/trees
✓ Consider non-wood options like recycled steel, fiberglass, concrete, or recycled plastic lumber.	✗
✓ Safer treated wood options	✗ Arsenic treated wood

Wood is a necessary resource for the operations and maintenance of human life. However “Forests are threatened worldwide by logging, urban expansion, clearing for farming, ranching, and energy crops, road building, climate change, non-native pests and diseases, air pollution, and more. This topic covers these threats and the struggle to save and conserve forests and forest ecosystems”, (Ecospeakers.org). By making better decisions in the purchase of goods and services, these damages can be reduced significantly. Many companies are beginning to use more sustainable forestry techniques and management practices. “Sustainable forestry is a forest management practice. The basic tenet of sustainable forestry is that the amount of goods and services yielded from a forest should be at a level the forest is capable of producing without degradation of the soil, watershed features or seed source for the future”, (Wikipedia). Choosing sustainably forested wood, using salvaged wood or non-wood products (as long as these are also sustainable!), this vital resource can be protected for future generations.

### Information Sources:

Forest Certification Resource Center: Searchable Database for certified forest and products

<http://www.certifiedwoodsearch.org/> or

[http://www.metafore.org/index.php?p=Forest\\_Certification\\_Resource\\_Center&s=147](http://www.metafore.org/index.php?p=Forest_Certification_Resource_Center&s=147)

EPA standards for timber products: <http://www.epa.gov/cpg/products.htm>

Convention on International Trade in Endangered Species (CITES) for more information on endangered tree species go to <http://www.cites.org/#>

# AUTOMOTIVE

## VEHICLES

### QUICK GUIDELINES CHART

LOOK FOR.....	AVOID.....
✓ High fuel efficiency	✗ Low miles per gallon vehicles
✓ Low emission vehicles	✗ High emissions vehicles
✓ Smallest size appropriate for the use	✗ Large oversized vehicles
✓ Alternative technologies where appropriate (hybrid, electric, natural gas, biodiesel)	✗
✓ Comprehensive parts and services warranties	✗
✓ Examine the plans of the manufacturer that you are buying from for phasing out lead, mercury, and PVC use.	✗
✓ Non- mercury containing headlamps and switches.	✗

There are many contributors to air pollution. Perhaps the most significant impact comes from engines used in industry, commerce, and individual homes. These sources include “mobile sources” such as vehicles, trains, planes, snow blowers, and lawnmowers. Other sources are “non-mobile” such as factories, power plants, and building operations. Mobile sources contribute to pollution by combusting and evaporating fuels, and include pollutants like Carbon Monoxide, hydrocarbons, Nitrogen Oxides, particulate matter, greenhouse gases, and air toxics. These pollutants can cause cancer and other serious health problems in humans and animals, as well as damage ozone and increase global climate changes.

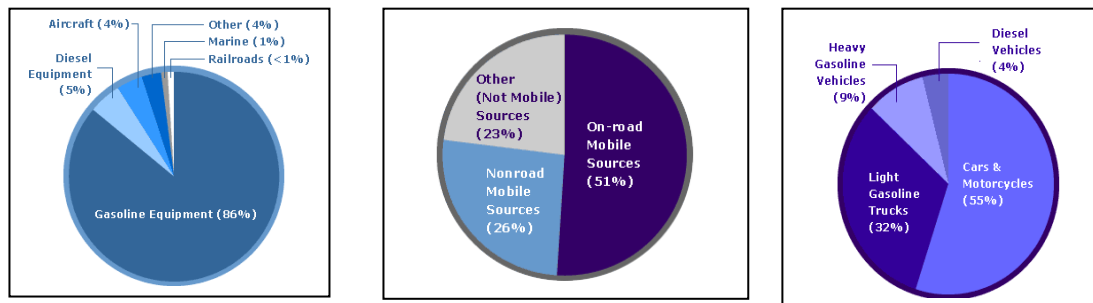


Figure 4: Sources of green house gas emissions. Graphs from the Environmental Protection Agency at: <http://www.epa.gov/otaq/invtory/overview/pollutants/index.htm>



**Information Sources:**

Environmental Protection Agency at [www.epa.org](http://www.epa.org)

**For more information about alternatives go to:**

Alternative Fuels <http://www.fueleconomy.gov/feg/current.shtml>

Or the Alternative Fuel Vehicle Institute at <http://www.afvi.org/>

Alternative Vehicles: <http://www.alternativefuelvehicles.info/>

Energy: For information on Idaho Incentives for Renewables and Efficiency go to <http://www.dsireusa.org/library/includes/map2.cfm?CurrentPageID=1&State=ID&RE=1&EE=1>

Other: [www.environmentaldefense.org/greencar](http://www.environmentaldefense.org/greencar) and

[www.CleanCarCampaign.org](http://www.CleanCarCampaign.org)



# BATTERIES

## QUICK GUIDELINES CHART

LOOK FOR.....	AVOID.....
✓ Rechargeable (except in smoke detectors) with the minimum amount of lead, mercury, and cadmium.	✗ Non-rechargeable batteries whenever practical.
✓ Rechargeable Alkaline Manganese (RAM), NiMH, and LiIon batteries and other alternatives	✗ NiCd batteries, avoid lead, mercury and cadmium containing batteries.
✓ When buying new products that require batteries, specify “rechargeable”	✗ Appliances powered by batteries
✓ Choose manufacturers who have a battery take back program or policy.	✗
✓ Batteries of the same type, and replace all at the same time	✗ Replacing only part of the batteries

Batteries are convenient, versatile and reliable source of power for everyday use such as toys, computers, electronics, and tools; they can also serve as a back-up for critical needs such as running phone lines and emergency facilities during fluctuations in power supply. They are also one of the most

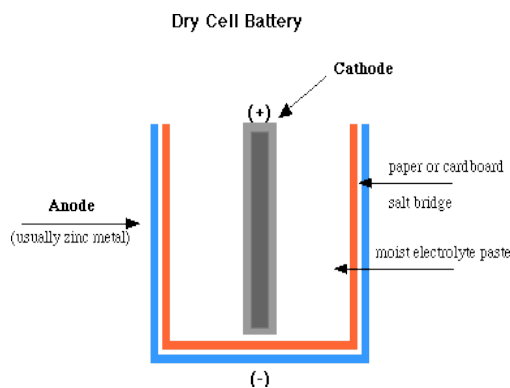


Figure 5: Dry Cell Battery, Picture from [http://library.kcc.hawaii.edu/external/chemistry/everyday\\_battery.html](http://library.kcc.hawaii.edu/external/chemistry/everyday_battery.html)

expensive forms of energy in use today. “...A standard AA cell can just about boil a tenth of a cup of water”, (SD The Govt. Approach)

Batteries produce energy when the heavy metals they contain reach with a chemical electrolyte. There are three classifications of batteries commonly found in every day use: acid, mildly acid, and Alkaline. There are two types of batteries that we use on a regular basis, wet cell and dry cell. Wet cell batteries, which are commonly found in motor vehicles, contain a liquid electrolyte. The EPA states that, “Nearly

The energy required to make batteries is about 50 times higher than the energy that they produce.

**Over its useful life and with proper maintenance, each rechargeable battery may substitute for hundreds of single-use batteries.**

99 million wet-cell lead-acid car batteries are manufactured each year” (EPA<sup>1</sup>). Dry cell batteries (AAA, AA, C, D, 9Volt, and button) use a moist electrolyte paste. According to the Environmental Protection Agency, Americans purchase nearly 3 billion dry-cell batteries each year (EPA<sup>1</sup>).

However, even though batteries are useful and necessary, batteries also pose a significant problem because of the potentially harmful metals that they contain, and the amount of waste that they generate. Improper disposition of batteries can contaminate the environment, and when they are incinerated can release metals into the air (EPA<sup>1</sup>). This risk can be greatly reduced by altering purchasing and usage of batteries.

### **Ways to reduce risk and improve lifespan of batteries**

- **Use Rechargeable Batteries whenever possible.**
  - The life of a rechargeable battery operating under normal conditions is generally between 500 to 800 charge-discharge cycles (WBO)
- **Maximize performance of batteries.**
  - Break in new batteries: New rechargeable batteries generally come in a “discharged” condition. Fully charge and discharge the new battery approximately four times in order to reach the maximum chargeability.
  - Prevent the Memory Effect: Many batteries, excluding the Li-Ion, suffer from the Memory Effect when not fully charged and discharged regularly. Memory Effect refers to the battery remembering the charge level and “setting” that level as its new maximum charge level. In order to avoid this problem make sure to fully charge and discharge rechargeable batteries every few weeks.
  - Keep them clean: Clean contact points with rubbing alcohol and a swab to maintain a good connection.
  - Keep them “running”: It is also important to use batteries every few weeks or more. Do not leave them inactive for long periods; however if this happens charge that battery as if it were new.
  - Properly store when not in use: Store batteries in a clean, cool, and dry place, away from metal objects.
- **Properly dispose of batteries at the end of their life-cycle.**
  - Keep a battery disposal container in the office and at home.
  - If battery recycling is not available then dispose of them as hazardous waste.


Information Sources:

For further information on Batteries go to the Environmental Protection Agency at [www.epa.org](http://www.epa.org)

To learn about the operation and maintenance of batteries go to <http://www.warehousebatteryoutlet.com/batteryinfo.asp>

# INDUSTRIAL CLEANING PRODUCTS

## QUICK GUIDELINES CHART

LOOK FOR.....	AVOID.....
✓ Look at MSDS's (Materials Data Safety Sheets) for hazards associated with the product.	✗ Products that do not have information about the hazards.
✓ Fragrance-Free/low dye content	✗ High fragrance products
✓ Bio-Based. Look at MSDS to determine the effectiveness of the product at killing the necessary germs. Use the minimum toxicity possible for the situation.	✗ When possible avoid products containing 2-butoxyethenal or glycol ethers.
✓ Use the appropriate amount of the product, and appropriate time. Identify areas that need to be disinfected and those that only need sanitized.	✗ Over dosing the area, using disinfectant when not necessary.
✓ Bio-degradable (rapidly renewable) products	✗
✓ Partly or all recyclable packaging and concentrated products.	✗ Aerosol cans
✓ Green Seal products or other certifying agency products. 	✗
✓ Low/No VOC products	✗

Cleaning products are a necessary purchase for disinfecting and sanitizing in the effort to destroy dangerous germs. However these products while stopping one danger can cause another to the environment and to worker health. By taking a closer look at the content of the products that are used these effects can be reduced greatly.

### Definitions:

**Bio-based:** a commercial or industrial product in which more than 50% of the ingredients (other than water) are biological or renewable domestic agricultural (plant, animal or marine) or forestry materials

**Biodegradable:** a product in which 60-70% of its ingredients break down and return to the environment within 28 days, for each organic component above 1% in the ready-to-use product

VOCs-Volatile Organic Compounds-an organic compound that can easily evaporate into the air, causing pollution and risking the health of humans using the product.

# FLOORING

CARPET/OTHER

## QUICK GUIDELINES CHART

LOOK FOR.....	AVOID.....
✓	✗
✓	✗
✓	✗
✓	✗
✓	✗
✓	✗

# PAINT

## QUICK GUIDELINES CHART

LOOK FOR.....	AVOID.....
✓ Low or No VOCs	✗
✓	✗
✓	✗
✓	✗
✓	✗
✓	✗

# FURNITURE

## QUICK GUIDELINES CHART

LOOK FOR.....	AVOID.....
✓ Refurbished/Salvaged	✗
✓	✗
✓	✗
✓	✗
✓	✗
✓	✗



# LANDSCAPING

## QUICK GUIDELINES CHART

LOOK FOR.....	AVOID.....
✓ Native species	✗ Non-native when possible
✓ Perennials	✗ Annual, unless using for extreme color statements.
✓	✗
✓	✗
✓	✗
✓	✗

# MEETINGS AND HOSTING EVENTS

## QUICK GUIDELINES CHART

LOOK FOR.....	AVOID.....
✓ Reusable cutlery, plates and cups	✗ Paper or plastic disposable food wares.
✓ Paperless technology	✗ Large multi-page packets, when possible.
✓ Local, seasonal food.	✗
✓	✗
✓	✗
✓	✗


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## COMMON COMPANIES: A COMPARISON

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There is much concern over how difficult it will be to make sustainable purchases because of availability and price difference. Many companies today are seeing the positive benefits from altering business practices, procedures, and providing many environmentally preferable products to customers. The following is a comparison of four companies, three of which Moscow commonly purchases from (Staples, Office Depot, and Office Max), and a new one (Corporate Express).

### **STAPLES:**

Staples is commonly purchased from, and has a store in the City of Moscow. Staples is one of these companies that has seen the benefit to carrying environmentally preferable products. Staples is participating in the Forest Stewardship Council, and a partner in the U.S. EPA's ENERGY STAR® program. By the end of 2006 Staples was offering over 2900 products with environmentally preferable attributes across all sales channels. Products are well labeled with their environmental attributes on their internet website at [www.staples.com](http://www.staples.com). Products are easily identifiable by easy to find labels and recycled content percentages (recycled- , non-toxic, low VOC, etc.)

Environmentally preferable products currently offered at Staples include:


- More than 2,200 active paper products with post-consumer recycled content (find recycled content paper) by the end of 2006.
- Staples® brand remanufactured ink and toner cartridges and remanufactured cartridges from other brands
- ENERGY STAR® certified energy-efficient office products
- Furniture with post-consumer recycled content steel
- Binders and organizers containing post-consumer recycled content plastic
- Eco-friendly products such as nontoxic cleaners.

To find out more go to

<http://www.staples.com/sbd/content/about/soul/environmentallypreferableproducts.html>

To view Staples Environmental Paper Procurement Policy go to

[http://www.staples.com/sbd/img/content/soul/pdf/staples\\_environmental\\_paper\\_procurement\\_policy.pdf](http://www.staples.com/sbd/img/content/soul/pdf/staples_environmental_paper_procurement_policy.pdf)

Products are easily identifiable by the labels and the recycled content percentage (recycled- , non-toxic, low VOC, etc.) Products are well labeled with their environmental attributes.

### **OFFICE DEPOT:**

Office Depot is also commonly purchased from and carries many environmentally preferable products and has implemented strategies to become a more sustainable company. Office Dept has also identified products that meet third-party guidelines such as

Greenseal or the EPA's Comprehensive Procurement Guidelines (CPG). Office Depot is striving to meet the needs of the following areas: (from [www.officedepot.com](http://www.officedepot.com))

**Products that reduce waste and resources**

- Recycled: minimum 10% post-consumer recycled or 20% total recycled
- Recycling solutions: bins, bags and boxes to encourage recycling
- Remanufactured: ink and toner cartridges from previously used products
- Refillable & refills: products that replace one-time-use disposables
- Rechargeable: batteries and chargers to replace one-time use batteries
- Rewritable: CDs, DVDs and Flash Drives to reduce paper and allow reuse

**Products that reduce energy**

- Reduced energy in use: "Energy Star" qualified electronics and lights
- Renewable energy in use: solar powered or manually cranked products

**Products that reduce chemicals**

- Reduced chemicals in use: Certified non-toxic writing instruments and supplies
- Reduced chemicals and waste in disposal: Biodegradable liquids and non-toxic solids

To learn more about Office Depot's environmental programs go to

[http://www.community.officedepot.com/environment.asp?SID=EtH\\_jGvS78aayPnuYU9QZ4p&odserver=www.officedepot.com](http://www.community.officedepot.com/environment.asp?SID=EtH_jGvS78aayPnuYU9QZ4p&odserver=www.officedepot.com)

To order a copy of Office Depot's Green Book (catalog containing all of their environmentally preferable products) go to <http://www.community.officedepot.com/gb.asp>

Or go to the Virtual Green Book at

<http://www.officedepot.com/storeFront.do?N=302113+100000> to view and purchase environmentally preferable products online.

**OFFICE MAX:**


Office Max is also commonly purchased from and the State of Idaho contracts with this company. While Office Max does carry many recycled products, they are more difficult to identify than from the other companies previously discussed. Descriptions are very simple, such as, recycled 25. However a user can compare paper products with the useful tool that specifies all of the attributes of the copy paper including the recycled content. This can be found at

[http://www.officemax.com/max/solutions/microsite/paperGuide.jsp?BV\\_UseBVCookie=yes](http://www.officemax.com/max/solutions/microsite/paperGuide.jsp?BV_UseBVCookie=yes)

**CORPORATE EXPRESS:**

Corporate Express is a company that Moscow does not currently have a contract with. However they are very interested in working with the city of Moscow. Corporate Express is a very environmentally aware company, with their crowning star the Ecooffice program. The

Ecoffice program guiding principle is “to conduct business activities in a manner that does not harm people or the environment”, (Ecoffice brochure). Even the brochures and catalogs are printed on recycled content paper, using soy based inks. Corporate Express is doing many things to make their operations more sustainable:

- Onsite recycling
- All printed materials are on recycled paper, using soy inks
- Products are easily identifiable by the Ecoffice logo 
- Can obtain Materials Safety Data Sheets (MSDSs) easily from main website
- Comprehensive recycling program in place in that includes paper, card, plastic, wood and electrical equipment
- Energy efficiency program that includes fitting monitoring equipment on boilers and a turn off equipment campaign
- Using route analysis technology to optimize vehicle efficiency and reduce mileage
- Environmental Management System accredited ISO 14001:2004. The ISO 14001:2004 accredited Environmental Management System monitors environmental performance and achievement of environmental performance objectives.
- Cartridge Recycling Program
- Offer an extensive choice of environmentally friendly products – more than 1,000 in our 2007 catalogue. These are marked with an environmentally friendly 'ecoffice' logo and are comprised of products that are recycled, energy efficient, biodegradable, non-toxic, rechargeable, remanufactured, recyclable, from a sustainable source or designed to last longer. Corporate Express also has over 3500 environmentally preferable products, with new additions every day.
- Ability to tailor a catalog for each account, to include the products that the account holder wishes to purchase from.
- Products are “delivered in boxes made of recycled materials and whenever possible, factory cartons are used for full case shipments. Bags and envelopes are used for small items or orders, and our distribution centers use software that automatically selects the optimal size box for every shipment to minimize waste”,  
(<http://www.corporateexpress.co.uk/portal/environment/>)

For more information about corporate express go to

<http://www.corporateexpress.co.uk/portal/environment/>

Or for City employees, look at catalog in the City of Moscow Administration Office

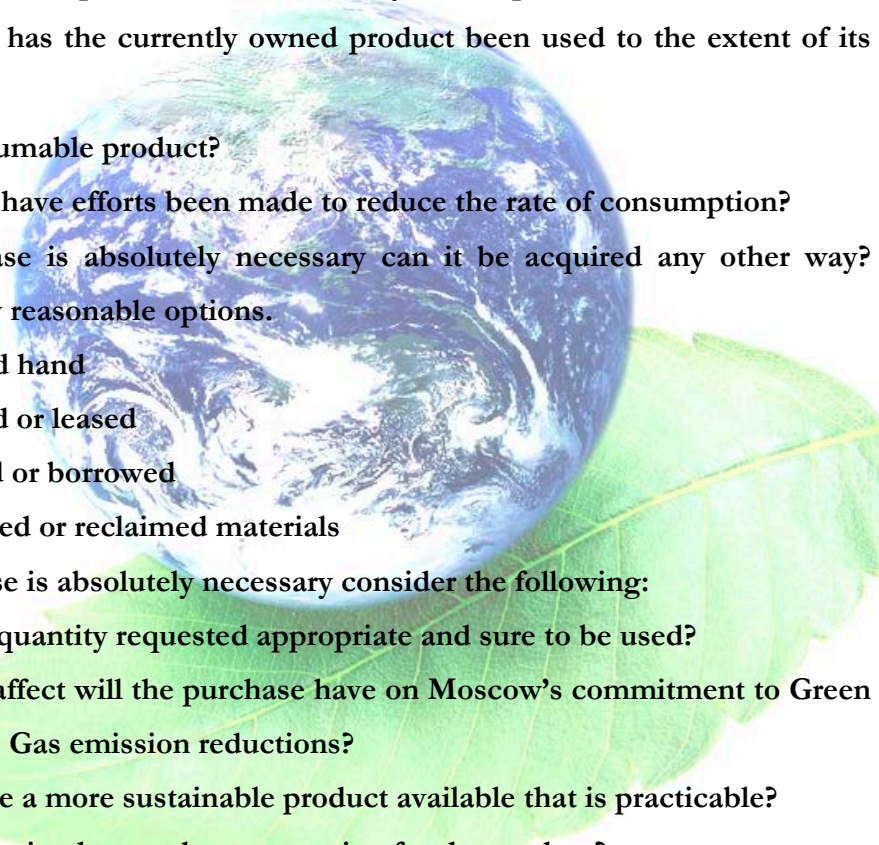
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**PURCHASING WORKSHEETS:**

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THESE ARE WORKSHEETS THAT CAN BE USED TO DETERMINE THE RELATIVE “SUSAINABILITY” OF PRODUCTS IN COMPARISON TO EACHOTHER, AND TO HELP DETERMINE THE TOTAL COST OF A PURCHASE. THESE ARE ONLY MEANT TO BE A HELPFUL TOOL. THE PRODUCT RANKING WORKSHEET IS ADAPTED FROM WHISTLER 2020.

## 9 QUESTIONS TO ASK YOURSELF BEFORE MAKING A PURCHASE

- 
- What service does the product provide?
  - Is the purchase absolutely necessary?
  - Can the need be met in any other way?
  - Is the purchase a replacement of a currently owned product?
    - If yes, has the currently owned product been used to the extent of its life?
  - Is this a consumable product?
    - If yes, have efforts been made to reduce the rate of consumption?
  - If the purchase is absolutely necessary can it be acquired any other way?  
Consider only reasonable options.
    - Second hand
    - Rented or leased
    - Shared or borrowed
    - Salvaged or reclaimed materials
  - If the purchase is absolutely necessary consider the following:
    - Is the quantity requested appropriate and sure to be used?
    - What affect will the purchase have on Moscow's commitment to Green House Gas emission reductions?
    - Is there a more sustainable product available that is practicable?
  - Have you examined more than one option for the product?
    - Recycled content?
    - Location of purchase?
    - How will the product be disposed of?
    - What kind of packing does the product have?
    - Is the product biodegradable?
  - Have you communicated Moscow's desire to purchase more sustainable and environmentally responsible products to supplier?

<b>City of Moscow, Idaho</b>	<b>Sustainable Purchasing: Total Cost Assessment Estimate Product Comparison Use only If Comparing Large Budget Items</b>				
Fill out to best of ability	Product #1 Name	Product #2 Name	Product #3 Name	Product #4 Name	Product #5 Name
Product					
Life Expectancy of product In Months/Years/days (will depend on the type of product being compared)					
Initial purchase price					
Training and Information fees					
Costs associated with the delivery of the product (Transportation, gas, en- ergy, etc)					
Administration Costs over expected life of product					
Cleaning, Maintenance, repair-over expected life of product					
Direct operating costs, pro- jecting over expected life of product.					
Storage Costs over lifetime of product					
Packaging Disposal cost.					
Disposal Cost					
Resale Value at the end of city use. (if applicable)					
Recycling Costs					
Product					
Total Cost —>					



<b>City of Moscow-Product Ranking</b>		Product:			Date:	Initial Purchas Price:	
		Supplier:			Total Cost, if plausible to include):		
Recycled and post consumer content	0	1	2	3	4	5	Weighting(1-5)
	Minimal under						X (?)
	0%	25%	25%	50%	75%	100%	Score =
Recycling and Disposal	0	1	2	3	4	5	Weighting(1-5)
	Minimal under						X (?)
	0% Recyclable	25%	25%	50%	75%	100%	Score =
Packaging	0	1	2	3	4	5	Weighting(1-5)
	Non-natural, non-recyclable	Minimal under 25%	25% natural or recycled content	50% natural or recycled content	100% natural or recycled content	No Packaging	X (?)
							Score =
Location (Purchase and Servicing)	0	1	2	3	4	5	Weighting(1-5)
	Overseas	Directly across US Border	United States	Northwest	Idaho	Moscow	X (?)
							Score =
Manufacturing or uses (Energy)	0	1	2	3	4	5	Weighting(1-5)
	100% fossil fuel	Minimal under 25 % renewable	75%/25%	50%/50%	25%/75%	100% renewable	X (?)
							Score =
Manufacturing or use (Byproducts)	0	1	2	3	4	5	Weighting(1-5)
	0% natural or biodegradable	Minimal under 25% biodegrade.	25% natural or biodegradable	50% natural or biodegradable	100% natural or biodegradable	100% natural or biodegradable	X (?)
							Score =
Cost ( allows for the comparison of 5 products)	0	1	2	3	4	5	Weighting(1-5)
	Highest Price of Products Assessed			Lowest Price of Assessed Products			X (?)
							Score =
Similar /other Products Assessed:					Total Score:		

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## APPENDICES

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### APPENDIX 1: SUSTAINABLE AND ENVIRONMENTALLY PREFERABLE PURCHASING RESOLUTION

(Draft)

#### RESOLUTION NO. 2007

A RESOLUTION OF THE CITY OF MOSCOW; ESTABLISHING A MORE SUSTAINABLE AND ENVIRONMENTALLY PREFERRABLE PURCHASING PROGRAM WITHIN ALL CITY OPERATIONS; PROVIDING THIS RESOLUTION TO BE EFFECTIVE UPON ITS PASSAGE AND APPROVAL.

#### **Purpose**

Through sustainable and environmentally considerate purchasing decisions, the City of Moscow can help reduce the harmful impacts on environmental and social systems, both locally and globally; encourage innovative and responsible options in the marketplace; and support local and regional economic development. It is the intent of the City of Moscow to integrate sustainability considerations into every aspect of acquisition.

WHEREAS, the degradation of the world's natural resources is a critical problem that threatens all humanity, future generations and all life on Earth; and

WHEREAS, the health, safety, and overall quality of life of Moscow citizens are dependent on the careful stewardship of local, regional and global natural resources; and

WHEREAS, the City of Moscow understands the far-reaching impacts of purchases on the economy, the environment and social well being of peoples around the world ; and

WHEREAS, the City of Moscow is committed to the protection of vital environmental, social, and economic systems locally, regionally and globally; and

WHEREAS, the City of Moscow is actively facilitating sustainability measures within the community through a green building program that will offers local contractors and owner/builders the option of certifying their residential projects as "Green; and

WHEREAS, the City of Moscow is actively protecting a local vital natural resource through the implementation of water conservation strategies to reduce water consumption today to ensure plentiful supplies tomorrow for our community and our children; and

WHEREAS, the City of Moscow is actively supporting local urban forestry through the community forestry program that strives to encourage the preservation, expansion, protection, and proper maintenance of the community forest of the City to enhance the beauty of the City as well as increase and protect a vital natural resource; and

WHEREAS, the City of Moscow is a highly visible model for the region's citizens, local governments, businesses, and industries; and

WHEREAS, the City of Moscow can demonstrate leadership by incorporating sustainability into all purchasing practices that will preserve natural resources, conserve energy, eliminate waste and emissions, and lessen the overall negative environmental, social and economic impacts; and

WHEREAS, The City of Moscow can protect the environment, decrease the negative impacts on the local economy, and increase the health and well being of humans all over the world by "rethinking" the purchase of products and services, by considering potential alternatives to the product or service, and by evaluating the specifics of the product or service; and

WHEREAS, the City of Moscow can help drive the market place to make innovative and responsible products more available and less expensive by purchasing more sustainable products and services; and

WHEREAS, the City of Moscow can make large impacts with small changes such as the purchasing paper and wood products obtained from recycled, plantation, salvaged or renewable sources will reduce the impact and waste from the paper industry; and

WHEREAS, nearly a ton of new recycled paper can be made from a ton of recycled stock compared to the 2-3.5 tons of trees required to make a ton of virgin paper.

WHEREAS, replacing traditional cleaning supplies with green cleaning products reduces a variety of human health and environmental concerns for our staff and local environment; and

WHEREAS, the purchase of local products and services will stimulate local economic growth and longevity, and increase the overall health and well being of the City of Moscow.

**NOW, THERFORE, BE IT RESOLVED**, by the Mayor and City Council of the City of Moscow as follows:

That the City of Moscow will implement a more sustainable and environmentally preferable purchasing program that will reduce and/or eventually eliminate Moscow's contribution to: extraction of materials from the earth's crust; the degradation of vital natural areas; the production of waste and hazardous materials; and the undermining of the ability of other humans, locally and worldwide, to meet their basic needs.

**BE IT FURTHER RESOLVED**

That all city departments are responsible for:

- A. Following all rules and regulations of the City of Moscow, as well as the State of Idaho.
- B. Rethinking the purchase of all products and services, to determine if it is necessary, is there a more sustainable option, can the product or service be acquired locally, and what is the total cost of the product looking beyond the initial costs to weigh all considerations including the extraction of raw materials, handling, shipping, storage, maintenance, operations, and disposal.
- C. Purchasing recycled and other environmentally preferable products with the maximum amount of post consumer material, whenever practicable.
- D. Encouraging its contractors and consultants to use recycled and other environmentally preferable products whenever practicable.
- E. Working with current and new suppliers to provide more sustainable products and services that the City of Moscow would prefer to acquire.
- F. Promoting the use of recycled and other environmentally preferable products by publicizing its environmental purchasing policy and its implementation.
- G. Assigning appropriate personnel to evaluate opportunities for the purchase of more sustainable products and services.
- H. Tracking and reporting all purchases made within each department; including the evaluation of the product or service considering all sustainable and environmental aspects, to be reported at the end of each fiscal year.

That this Resolution shall become effective as of \_\_\_\_\_

**PASSED AND APPROVED** by the Mayor of the City of Moscow, Idaho, this \_\_\_\_\_ day of \_\_\_\_\_, 2007.

\_\_\_\_\_  
Nancy Chaney, Mayor

ATTEST:

\_\_\_\_\_  
Stephanie Kalasz, City Clerk

## **APPENDIX 2: SUSTAINABLE AND ENVIRONMENTALLY PREFERABLE PURCHASING POLICY**

(Draft)

### **SUSTAINABLE AND ENVIRONMENTALLY PREFERABLE PURCHASING POLICY**

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#### **1.0 STATEMENT OF POLICY**

The City of Moscow (City) shall acquire goods and services in a manner that complies with Federal, State, and City laws and Resolutions. The City and all City departments shall, where feasible and practical, purchase and use materials, products and services that are fiscally responsible, promote the local economy, reduce resource consumption and waste production, and reduce the impacts to the environment and to worker and community health. This includes but is not limited to purchasing products that are durable, biodegradable, energy efficient, less or non-toxic, reusable, and recycled. The City shall also institute practices that reduce waste by increasing product efficiency and effectiveness.

#### **2.0 POLICY PURPOSE**

The purpose of this Policy is to establish policies and clarify procedures for the sustainable purchasing of supplies, materials, and services by the City to fulfill the purpose of the Sustainable and Environmentally Preferable Purchasing Resolution 2007 \_\_. This Policy is adopted in order to:

- Conserve natural resources;
- Reduce pollution and other adverse environmental impacts;
- Reduce overall energy consumption and encourage use of renewable energy sources;
- Support the use and availability of environmentally preferable products and services in the marketplace;
- Reduce the amount of disposed materials being landfilled;
- Lessen contributions to the waste stream by reducing excess packaging and by supporting recycling markets;
- Increase the proportionate use of environmentally preferable products,
- Promote efficient use of materials and resources;
- Give preference to manufacturers and vendors that reduce environmental impacts in their production and distribution systems or services;

- Document purchasing decisions to demonstrate accountability and to track the City’s progress toward sustainability;
- Guide City departments toward more sustainable products and services; and
- Publicize procedures and accomplishments to serve as a model for City residents, businesses and organizations.

### **3.0 ORGANIZATIONS AFFECTED**

All City departments and offices that make purchases of goods and services or that contract with others to make purchases shall make all efforts to comply with this Policy.

### **4.0 PRIORITIES**

- 4.1 The health and safety of workers and citizens of Moscow is of the utmost importance and takes precedence over all other policies.
- 4.2 The City recognizes that the local recycling system is a necessary element of an environmentally sound production system and that recycled content products are essential to the continuing viability of both. Therefore, products composed of higher percentages of recycled materials shall be preferred over products without recycled content. In addition, preference shall be given to products that also meet other specifications, such as chlorine free, non-toxic, or bio-based.
- 4.3 Nothing in this Policy shall be construed as requiring a department, purchaser or contractor to exclude adequate competition or procure products that do not perform adequately for their intended use or are not available at a reasonable price within a reasonable time period.
- 4.4 Nothing in this Policy shall be construed as requiring the City, department, purchaser or contractor to take any action that conflicts with local, state, or federal requirements.

### **5.0 SPECIFICATIONS**

#### **5.1 Local Purchasing**

- 5.1.1 In order to minimize the City’s environmental footprint, the City prefers to purchase products locally whenever possible and practical, so long as their cost does not exceed ten percent (10%) of the cost of similar products from non-local sources.
- 5.1.2 For purposes of this Policy, “locally” shall be defined as receiving a product or service from a location within a one hundred-fifty (150) mile radius of the City.



- 5.1.3 Purchases may be found exempt from this policy if reasonable attempts to procure a product or service have established that there is only one option to fulfill the need.

## **5.2 Source, Product and Waste Reduction**

- 5.2.1 The City shall institute practices that reduce waste and result in the purchase of fewer products whenever feasible, but without reducing safety or quality of the workplace product.
- 5.2.2 The City shall encourage the purchase of used or remanufactured products (such as laser toner cartridges or furniture), whenever feasible, but without reducing safety, quality or effectiveness.
- 5.2.3 All purchasers shall consider short-term, long term and product life-cycle costs in comparing product alternatives, when feasible. This includes the evaluation of the total costs that are expected from ownership to disposal of the product or service (life cycle cost assessment).
- 5.2.4 The City prefers products that are durable, reusable or refillable whenever feasible.
- 5.2.5 The City prefers packaging that is reusable, recyclable or compostable when suitable for intended uses and programs.
- 5.2.6 The City shall give preference to suppliers of electronic equipment, including but not limited to computers, monitors, printers, telephones, and copiers, that receive discarded equipment for reuse or environmentally safe recycling when feasible, after reasonable attempts to redistribute the equipment have failed.
- 5.2.7 All departments shall work to reduce the use and purchase of paper where feasible, using creative strategies such as double sided printing, narrower margin settings, single-sides scrap paper reuse, etc.
- 5.2.8 The City shall emphasize the use of paperless technology to conduct its business when feasible and practical.
- 5.2.9 As equipment is replaced or contracts expire, all printers, copiers, and fax machines shall, at a minimum, have duplex capability.

## **5.3 Recycled Content**

- 5.3.1 All paper office products shall contain a minimum target of twenty-five percent (25%) recycled or postconsumer content, unless a suitable choice is not available; and all non-paper office products shall contain the highest postconsumer content available and practical.

- 5.3.2 The City shall specify and purchase recycled, reusable or re-ground asphalt, aggregate base or Portland cement for road construction projects and shall specify and purchase recycled content transportation products, including signs, cones, parking stops, delineators, channelizers and barricades which shall contain the highest postconsumer content available when feasible, but without reducing quality, durability, safety and effectiveness.
- 5.3.3 All pre-printed recycled content papers intended for external distribution, (such as pamphlets, newsletters, and mass mailings), that are purchased or produced shall contain a statement that the paper contains recycled content.
- 5.3.4 The City shall always consider recycled content options when purchasing indoor and outdoor building materials.

#### **5.4 Energy and Water Conservation**

- 5.4.1 Where possible, equipment shall be purchased with the most up-to-date energy efficiency functions.
- 5.4.2 Equipment and appliances purchased by the City shall meet Energy Star certification; when Energy Star labels are not available, those products that have the highest energy efficiency of available products shall be purchased, whenever feasible and practical, without reducing safety, quality, or effectiveness.
- 5.4.3 When replacing interior lighting the City shall purchase the most energy-efficient equipment available and practical, including but not limited to, compact fluorescent fixtures, and LED bulbs.
- 5.4.4 When replacing exterior lighting and signals the City shall utilize the most efficient options available and practical. As most of the traffic signals in Moscow are owned by the Idaho Transportation Department (ITD), the City will work with ITD to encourage replacement of such equipment with more energy-efficient options.
- 5.4.5 In accordance with City Resolution No. 2004 – 12, establishing policies and guidelines to encourage responsible water use and conservation, the City shall purchase water-saving products and equipment whenever practical. This includes, but is not limited to, high-performance fixtures like toilets, low-flow faucets and aerators, and upgraded irrigation systems.

#### **5.5 Green Building**

- 5.5.1 All building remodels and renovation projects undertaken by the City shall follow “Green Building” practices for design, construction, and operation, where appropriate and feasible. Examples include guidelines as described by the National Home Builders Association (NAHB), Leadership in Energy and Environmental Design (LEED) or other nationally recognized programs.

## **5.6 Sustainable Landscaping**

- 5.6.1 All landscape renovations, construction and maintenance by the City, including workers and contractors providing landscaping services for the City shall employ sustainable landscape management techniques for design, construction and maintenance whenever possible. This includes, but is not limited to; drip irrigation, composting, integrated pest management, and procurement and use of mulch and compost that gives preference to those produced from regionally generated plant debris and/or food waste programs.
- 5.6.2 The City shall select plants that minimize waste. This shall be achieved by choosing species that are appropriate to the microclimate; species that can grow to their natural size in the space allotted them; and by following the guidelines set by the Moscow Community Forestry Program for tree selection and planting. The City shall also give preference to native and drought-tolerant plants that require minimal or no watering once established.

## **5.7 Toxic Hazards and Pollution**

- 5.7.1 When renewing contracts for janitorial services, the City shall specify industrial and institutional cleaning products that meet Green Seal Certification (<http://www.green Seal.org/>) standards for environmental preferability and performance; and all surfactants and detergents shall be readily biodegradable and, where practical shall not contain phosphates.
- 5.7.2 As equipment is replaced, the City shall phase out the use of chlorofluorocarbon and halon-containing refrigerants, solvents and other products that are commonly found in heating/ventilating/air-conditioning and refrigeration equipment, insulation, and fire suppression systems, but without reducing safety, quality, or effectiveness.
- 5.7.3 When purchasing paint, carpeting, adhesives, and furniture the City shall use products with the lowest amount of volatile organic compounds (VOCs), highest recycled content, and low or no formaldehyde.
- 5.7.4 The City shall reduce or eliminate paper and janitorial products that are bleached or processed with chlorine derivatives that contribute to the formation of dioxins and furans.
- 5.7.5 The City shall purchase products and equipment with the least content of lead or mercury whenever possible.

- 5.7.6 When replacing vehicles, the City shall give preference to minimal-polluting options including, higher performance vehicles, and alternatives such as bio-based fuels, electric batteries, compressed natural gas, and shall consider new technology as it becomes available.

## **5.8 Alternative Content Products**

- 5.8.1 The City encourages the use of alternative fuels, and shall consider new technologies as they become available.
- 5.8.2 Paper, paper products and construction products made from non-wood, plant-based (e.g. straw, hemp, or flax) or recycled fibers (e.g. denim or rags) shall be considered whenever practical.

## **5.9 Hosting City Meetings and Events**

- 5.9.1 City hosted events shall be compatible with source and waste reduction, recycled content, energy and water saving and alternative content policies when applicable and practical.
- 5.9.2 Local and seasonal foods are preferred when practical.

## **6.0 IMPLEMENTATION**

- 6.1 It will be the responsibility of each City department to implement this Policy in coordination with City Administration, which will be the coordinating body.
- 6.2 Vendors shall be encouraged to specify the minimum or actual percentage of recovered and postconsumer material in their products, even when such percentages are zero.
- 6.3 The City shall encourage vendors, contractors and grantees to comply with applicable sections of this Policy for products and services provided.
- 6.4 Purchasers of individual products and buyers making the selection from competitive bids in the City shall be invited to provide justification for product choices that do not meet the environmentally preferable purchasing criteria in this Policy.
- 6.5 Questions and disagreements about purchasing shall be referred to City Administration.

## **7.0 DEFINITIONS**

- 7.1 Biodegradable: The degradation as a result of the action of naturally occurring microorganisms, UV, moisture, oxygen, etc.
- 7.2 Chlorine-free: Products processed without chlorine or chlorine derivatives.

- 7.3 Compostable plastic: Plastic that is biodegradable during composting to yield carbon dioxide, water and inorganic compounds and biomass, at a rate consistent with other known compostable materials and leaves no visually distinguishable or toxic residues.
- 7.4 Dioxins and Furans: These are chemical compounds that are classified as toxic, persistent, and bioaccumulative by the U.S. Environmental Protection Agency (EPA). Dioxins are formed during combustion processes, during the bleaching of paper, etc, and is a carcinogen. Furans are used in the production of nylon and in solvents.
- 7.5 Environmentally Preferable Product: A product that has a reduced negative effect or increased positive effect on human health and the environment when compared with competing products that serve the same purpose (City of Seattle Sustainable Purchasing Policy, 2003)
- 7.6 Energy Star: The product is certified by the U.S. Environmental Protection Agency (EPA) as energy efficient. To find products that are “Energy Star” certified go to [www.energystar.com](http://www.energystar.com) or [www.energystar.gov](http://www.energystar.gov).
- 7.7 Forest Stewardship Council (FSC): A nationally recognized organization that is dedicated to sustainable forest management and certifies forests based on standards for management practices.
- 7.8 Green Building Practices: Environmentally conscious design, construction, operation, demolition, and renovation of buildings and structures.
- 7.9 Green Seal: Non-profit third-party certifying organization that has created a labeling system for products and services that meet the U.S. EPA’s criteria. This is a registered certification and appears only on certified products.
- 7.10 Integrated Pest Management (IPM): Management strategy that focuses on non-chemical pest control such as resistant plant species use, habitat alteration, and the altering of cultural practices, and is dedicated to minimizing the risks to human and environmental health.
- 7.11 Life Cycle Cost Assessment (LCCA): Comprehensive accounting of the total cost of ownership, including the initial purchase price, energy and operational costs over its intended lifespan, and disposal cost.
- 7.12 Local Governments for Sustainability (ICLEI): This is an organization dedicated to helping communities move towards sustainability. One of their programs is Cities for Climate Protection (CCP). The City of Moscow became a full member of ICLEI in 2007. For more information about ICLEI visit [www.iclei.org](http://www.iclei.org).

- 7.13 Performance: The ability of the product or service to effectively fulfill the need and/or accomplish a task.
- 7.14 Phosphates: Phosphates are a naturally occurring form of phosphorous that was once commonly used in detergents. Phosphates negatively impact environmental systems by causing algal blooms that rapidly consume the life sustaining oxygen in water ecosystems making it very difficult for other plant and animal life.
- 7.15 Post Consumer Material: Waste produced by the end consumer of a material stream or any household or commercial product that has served its original intended use.
- 7.16 Practical: Whenever possible and compatible with local, state and federal law, without reducing safety, quality, or effectiveness and where the product or service is available at a reasonable cost in a reasonable period of time.
- 7.17 Purchasing/Procurement: Acquiring supplies or services by renting, leasing, or buying. This refers to all actions that apply to the acquisition of the supply or service; including selection and solicitation of the source, as well as the preparation and award of contract and its administration.
- 7.18 Recyclable Product: Products or packaging made from material that can be recycled by systems in place for the City.
- 7.19 Recycled Content: Contains a percentage of recovered materials.
- 7.20 Sustainability: According to ICLEI, Local Governments for Sustainability, *"A SUSTAINABLE COMMUNITY IS DEFINED AS ONE THAT MAINTAINS THE INTEGRITY OF ITS NATURAL RESOURCES OVER THE LONG TERM, PROMOTES A PROSPEROUS ECONOMY, AND HOSTS A VIBRANT, EQUITABLE SOCIETY"* ([www.iclei.org](http://www.iclei.org)).
- 7.21 Surfactants and Detergents: Organic compounds that are found in many products that acts as wetting agents because they lower the surface tension of liquids allowing them to spread more easily.
- 7.22 Sustainable Product: Products or services that fulfill an essential need and performance standards while balancing fiscal responsibility, social equity, and environmental stewardship.
- 7.23 Sustainable Purchasing: Purchasing products or services that balance fiscal responsibility, social equity, performance standards, and environmental stewardship to fulfill an essential need.
- 7.24 Trade-Off: Making a choice, with full knowledge of both the positives and negatives of the choice, in order to gain quality or aspect at the expense of other qualities or aspects.

- 7.25 U.S. EPA Guidelines: The U.S. EPA has established Comprehensive Procurement Guidelines that give standards for different types of products and is updated on a regular basis.
- 7.26 Volatile Organic Compounds (VOCs): Organic chemical compounds that easily release into the atmosphere. VOCs are linked to soil damage, groundwater and air pollution and are commonly found in paints and thinners, carpet, wood finishers and sealers, and petroleum products.

## **8.0 EFFECTIVE DATES**

- 8.1 This Policy shall take effect on [?].
- 8.2 Purchasing procedure and Policy shall be evaluated every two (2) years starting with the implementation of this Policy. [?]