



PROCUREMENT

OPERATION



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ACTIVITY DESCRIPTION

Purpose: Procurement (information gathering, supplier contact, background review, negotiation, fulfillment, consumption, maintenance, disposal, and renewal) of goods and services that meet environmentally preferable purchasing criteria by tenants, operators, contractors, and City and County of Denver employees at DEN.

Environmentally Preferable Purchasing Criteria: Purchase products or services that minimize the impact on human health and the environment when compared with competing products or services that serve the same purpose. Buyer and/or agency conducts research on environmentally preferable alternatives, includes required environmental attributes in bid documents, and includes in award criteria and/or master purchase order or one-time purchase. Examples include but are not limited to: goods and services that are energy efficient or durable, can be recycled or reused, contain recycled materials, are free of toxic substances, pose minimal chemical hazard, pollution potential, or regulatory liability, and save natural resources.

See lists below which specify for procurement products and services that are:

- Environmentally preferable attributes
- Favored
- Discouraged
- Prohibited

The purchasing guidelines contained in this Environmental Guideline (EG) are strongly encouraged for all entities making purchases on behalf of DEN.

POTENTIAL ENVIRONMENTAL RISKS

The following environmental concerns are associated with this activity:

- Impact to the environment from the use of products that contain hazardous constituents.
- Use of non-renewable resources.
- Generation of hazardous wastes.
- Generation of solid waste.
- Impacts to natural resources

Potential consequences from performing the activity incorrectly:

- Property damage, damage to the environment, and possible regulatory non-compliance.



CRITICAL OPERATING REQUIREMENTS

Prohibited Activities

Purchase of products or services that contain chemicals or compounds listed in the Prohibited Chemicals and Compounds list (see Table 1)

General Considerations

Each person conducting procurement for goods and services is responsible for understanding the applicable regulations and managing their activities accordingly. This Environmental Guideline is meant as guidance only and does not supersede any regulations.

Any person(s) performing centralized or delegated procurement for DEN or on its behalf that have the potential to cause any environmental impact and must be aware of the City's Environmental Preferable Purchasing Policy, know which significant environmental aspects are related to the products, goods, and/or services they are purchasing.

City purchasers of products and services should always utilize existing City bids and contracts whenever possible. The City bids and contracts have already been screened by City Purchasing for environmentally preferable purchasing criteria.

Training Requirements

- Procurement Card (PCard) Training – conducted by Purchasing for all individuals authorized to perform delegated purchasing with a PCard
- Environmental Awareness Training

Storage and Materials Management Requirements

None.

PLANNING REQUIREMENTS

Sufficient and reasonable time should be allocated within the procurement process to allow for the identification of cost-competitive procurement options that provide the highest probability of achieving the City's environmental and other goals.

CRITICAL TASKS

Consider the environmental impacts and benefits (reduced toxicity, composition of recycled materials, reduced packaging, disposal requirements, future liability, etc.) of each product being evaluated in addition to other "value added" factors, such as cost and performance.



Include suitable environmental provisions for constituents of concern and desired attributes in procurement and contract documents where appropriate. Reference Executive Order 123 or other environmental requirement where necessary.

EMERGENCY RESPONSE

None.

INSPECTION AND MAINTENANCE REQUIREMENTS

None.

EXPECTED RECORDS AND OUTPUTS

- GS Purchasing Report Card for EPP (downtown Purchasing)
- Training records for pCard training/refresher (DEN pCard Administrator)

REFERENCES

Contacts

- DEN Environmental Services Main Line (303) 342-2730, DIA.Environmental@flydenver.com
- Nic Moegliien (DEN Purchasing) 303) 342-2131, Nic.Moegliien@flydenver.com
- CCoD Director of Purchasing (720) 913-8121
- DEN PCard Administrator (303) 342-2208, PCard@flydenver.com

Guidance Materials

- Executive Order 123
- General Guidance for Environmentally Preferable Purchasing

Training Materials

- pCard training/refresher – conducted by the DEN pCard Administrator

Related Environmental Documents

- None

Applicable Regulations

- Purchasing Policies and Procedures
- Fiscal Rule 8.1 - Procurement
- Mayor's Executive order No. 123 (XO 123)



- Denver Revised Municipal Code (D.R.M.C.)
- DEN Rules and Regulations
- DEN Policies and Procedures

Other Documents

- City of Denver Environmental Public Health Policy
- DEN's Environmental Policy

FAVORED PRODUCTS AND SERVICES

- Green Seal approved products and services
- Energy Star certified equipment
- EPEAT Registry for Greener Electronics
- Specific Conformance to Green Seal GS-11 and GS-37 standards
- Conformance with California Code of Regulations for maximum allowable VOC content
- Conformance with emission limits in SCAQMD Rule #1168, or BAAQMD Regulation 8, Rule 51
- Conformance with Carpet and Rug Institute Green Label/Green Label Plus Programs
- Product listing with the Western Regional Pollution Prevention Network
- Product listed with the Center for the New American Dream
- Disposable janitorial products conformance with USEPA Comprehensive Procurement Guidelines
- Products supplied in concentrate
- Products dispensed through automatic metering and mixing equipment
- Products with high recycled material and post-consumer waste content
- Products with minimal petrochemical content
- Highly durable / long-lasting products and applicators
- Products shipped in bulk
- Neutral pH products
- Non-flammable products
- Fragrance and dyes free products
- Proven rapid bio-, photo-, or chemical degradation
- Non-aerosol products
- Locally reusable / locally recyclable packaging
- Other characteristics that can be shown to:
 - Minimize waste
 - Minimize consumption of energy and resources
 - Minimize release of toxic compounds
 - Minimize exposure of workers and the public to pollutants

DISCOURAGED PRODUCTS AND SERVICES

- Combination cleaner-disinfectants
- Products which liberate ammonia (CAS 7664-41-7)
- Products containing the following substances, except in trace amounts (< 0.1%):



- alkylphenol ethoxylates
- 1,4-dioxane (CAS 123-91-1)
- Nitrilotriacetic acid (CAS 139-13-9)
- Sodium ethylenediamine tetraacetic acid (CAS 60-00-4)
- 2-butoxyethanol or 2-butoxyethanol acetate (CAS 111-76-2, and CAS 112-07-2)
- ethanolamine (CAS 141-43-5)
- Products containing phosphates or phosphonates in excess of 0.5% phosphorous by weight
- Products with a Flashpoint of less than 140°F
- Products with a pH of less than 2.0 or greater or than 12.5 at their least dilute working strength
- Products containing more than 20% VOCs by weight
- Products having RCRA Hazardous waste characteristics in their least dilute working strength
- Practices resulting in the air-borne dispersal of dusts and soils
- Practices which rely on volatilization of organic solvents or result in the significant generation of chemical fumes or vapors.
- Practices which prevent the capture and collection of wastewater and water-borne pollutants.
- Products whose principal ingredients are readily absorbed through skin, or cause dermal irritation or sensitization on contact, or rapidly destroy skin tissue or the mucous membranes.
- Products supplied without clearly readable labels that describe product hazards, precautions, and instructions on use and disposal.
- Products for the safe use of which workers must don specialized respiratory protection or general splash protection equipment.

PROHIBITED PRODUCTS AND SERVICES

- Products containing persistent bio-accumulative toxics unless required by regulation
- Products containing Asbestos
- Products containing known carcinogens, mutagens, and teratogens
- USDOT Inhalation Hazard rated materials
- Halogenated compounds with an Ozone Depletion Potential greater than 0.01
- Products which have a high risk of causing spontaneous combustion
- Strong chemical oxidizers
- Products containing the chemical elements or compounds listed in Table 1
- Products containing chemical compounds deemed by the Denver Department of Environmental Health to present an undue of risk to human health or the environment in their use or disposal.

Upon request, the vendor must submit documentation proving that all procured products and services meet the prohibitions listed above.

TABLE 1: PROHIBITED CHEMICALS AND COMPOUNDS

CHEMICAL NAME	CAS NUMBER	COMMENTS
Arsenic	7440-38-2	
Arsenic, compounds of	Various	



Barium, compounds of	Various	not including alloys
Cadmium, compounds of	Various	not including alloys
Carbon tetrachloride	56-23-5	
Chlorobenzene	108-90-7	
Chloroform	67-66-3	
Chromium, compounds of	Various	not including alloys
1,2-Dichlorobenzene	95-50-1	
1,4-Dichlorobenzene	106-46-7	
1,2-Dichloroethane	107-06-2	
1,1-Dichloroethylene	75-35-4	
Hexachlorobenzene	118-74-11	
Hexachloroethane	67-72-1	
Hydrofluoric Acid	7664-39-3	
Lead, compounds of	Various	not including alloys
Mercury, elemental	7439-97-6	not including amalgams
Mercury, compounds of	Various	
Methylene chloride	75-09-2	
Nitrobenzene	98-95-3	
Pentachlorophenol	87-86-5	
Selenium, compounds of	Various	
Silver, compounds of	Various	not including alloys
Tetrachloroethylene	127-18-4	
1,1,1-Trichloroethane	71-55-6	
1,1,2-Trichloroethane	79-00-5	
Trichloroethylene	79-01-6	
2,4,5-Trichlorophenol	95-95-4	



2,4,6-Trichlorophenol	88-06-2	
Vinyl chloride	75-01-4	

GENERAL GUIDANCE FOR ENVIRONMENTALLY PREFERRABLE PURCHASING



Environmentally Preferable Purchasing (EPP)

Incorporating EPP into the Procurement Process

Environmentally preferable means "products or 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 applies to raw materials, manufacturing, packaging, distribution, use, reuse, operation, maintenance, and disposal.

Incorporating environmental considerations into the City purchasing process does not require any significant changes to the traditional process. The only real difference with EPP is that you will incorporate environmental concerns into each step of the purchasing process, along with price and performance considerations. As with other purchasing considerations, EPP is most effective when it is considered from the very beginning of the purchasing process. Keep in mind that the attention given to environmental considerations may vary widely from product to product or service to service. The extent to which environmental considerations are examined will depend on the function, cost, available timeframe to make the purchase, and the quantity of the product or service being procured.

The procurement process typically involves these steps:

- Determining your needs and the product or service characteristics required to meet the need
- Conducting some preliminary market research
- Determining the procurement method
- Determining the most appropriate source for obtaining the product or service
- Evaluating the overall quality and value
- Making the final selection of the product or service and monitoring the progress

In each of these steps, you should involve people with the appropriate expertise. For example, if you are in a City agency and want to implement EPP, involve the procurement and environmental experts in the City. With the appropriate expertise, it will be easier to include environmental considerations in the purchasing process.

Now let's see where considerations for environmental performance could fit into each of these steps. With any City purchase, you will first:

Determine your needs and the product or service characteristics required to meet the need. What product or service is needed to accomplish the job? What should it be capable of doing? How much or how many of a product or service is needed to meet the need?

Work in this stage establishes a valid need for the product or service, the justification for purchase, and the authority for seeking the item. The environmental and human health considerations can and should be reflected as part of the need. When developing product requirements, include relevant environmental attributes such as maximum Volatile Organic Compound, or VOC standards, minimum recycled-content requirements, energy-efficiency standards, or lists of prohibited toxic materials.

When developing product requirements, include environmental attributes

- Maximum Volatile Organic Compound (VOC) standards
- Minimum recycled-content requirements
- Energy-efficiency standards
- Lists of prohibited toxic materials

Agencies are not required to include detailed and prescriptive product descriptions

Agencies are encouraged to describe performance levels sought by the user

With the City moving toward performance-based contracting, agencies are not required to include detailed and prescriptive product descriptions. Instead, they are encouraged to describe performance level sought by the user. Past performance should also be considered if historical information on a particular product or service is available. Within this context, remember

that good environmental performance often reflects good overall performance of products and services.

Conduct some preliminary market research.

Is the product or service available commercially? Is it available from multiple suppliers or manufacturers? What is a reasonable price?

In conducting market research, include questions about the environmental aspects of the product or service. What are the distinguishing environmental attributes? Is it available containing recycled content? Are there any indoor air quality concerns with the product? How durable is the product? Can it be upgraded in the future? Are there any associated disposal hazards? Also, work with environmental experts in the City to help tailor the questions. In addition, check the [EPP Database](http://www.epa.gov/cpg/products.htm) (<http://www.epa.gov/cpg/products.htm>) of Environmental Information for Products and Services to find information about environmental attributes others have deemed important for a particular product or service category. The database is organized as a giant, searchable shopping mall of product and service-specific environmental information. This information is derived from domestic and international programs that have developed environmental standards, specifications, and guidelines.

What are the distinguishing environmental attributes?

Is it available containing recycled content?

Are there any indoor air quality concerns with the product?

Can it be upgraded in the future?

How durable is the product?

Are there any associated disposal hazards?

Remember:
Don't eliminate any products or services from consideration based on price alone

Remember not to eliminate any products or services from consideration at this point based on price alone. A product or service with a lower initial price might cost more overall than an alternative product with a higher initial price when lifecycle costs such as maintenance or disposal costs are considered.

Determine the procurement method. Can I purchase the product or service using Delegated Purchasing? Do I need to develop a contract? Should it be a negotiated best-value procurement or a sealed-bid procurement? Should the Statement of Work be performance-based?



The procurement method depends on numerous factors such as cost, availability, and required timeframe. Different procurement methods present different challenges and opportunities for including environmental considerations. For example, a negotiated contract might provide greater flexibility in incorporating environmental considerations, whereas a sealed-bid procurement needs to express environmental attributes as a mandatory requirement. Where appropriate, it's important to build in evaluation criteria reflecting environmental performance of the product or service being purchased.

Procurement method factors:

- Cost
- Availability
- Required timeframe

Different procurement methods present different challenges and opportunities for including environmental considerations

The type of procurement method also determines who is involved in making the purchasing decision and, in the case of EPP, who is involved in incorporating the environmental concerns. It's generally a good idea to involve pertinent procurement and environmental staff throughout the procurement process.

Although use of the City Pcard has streamlined the purchasing process, Pcard users are not exempt from EPP requirements.

Determine the most appropriate source for obtaining the product or service. Can I get it from City Surplus? Do I need to purchase it new? Is this item available on existing city contracts? Can Purchasing locate the product or service in which I'm interested?

Can I get it from City Surplus?
Do I need to purchase it new?
Is this item available on existing City contracts?
Can Purchasing locate the product or service in which I'm interested?

The Purchasing Division is the procurement agency for the City. Purchasing acquires different kinds of products and services from a variety of supply sources, including mandatory source suppliers.

Need is established
Marketplace availability determined
The item can be acquired or reused

Government excess or surplus should always be the first source of supply

Once the need is established and marketplace availability determined, the item can be acquired (or reused) from existing City sources or through new purchases. As reuse is both environmentally sound and cost-effective, City Surplus should always be the first source of supply. Maximizing use of agency-owned property minimizes new purchases, which saves agency money

and the earth's resources.



Evaluate the overall quality and value. Which product or service reflects the highest quality for the most reasonable price?

Building environmental factors into the evaluation criteria in the previous stage, makes it easier to compare products and services based on environmental performance. Now it is just a matter of applying the criteria. In doing so, you may need to rely on the City's environmental experts to help interpret the product or service providers' responses to propose requests. Environmental attributes are an important indicator of the product's or service's overall quality when combined with more traditional factors such as product safety, price, and performance. Past environmental performance can be considered here as well if information is available. This should include a company's environmental track record. Remember to consider lifecycle costs in determining the most reasonable price.

Environmental considerations are an important part of overall quality

Post purchase monitoring ensures the product's environmental claim are being met

The ultimate goal of any city purchase is to obtain the highest quality product or service at the most reasonable price

Make the final selection of the product or service, and monitor the progress.

Environmental attributes are an important indicator of the product's or service's overall quality when combined with traditional factors

Consider past environmental performance as well

Remember to consider lifecycle costs in determining the most reasonable price

Selection of a preferred product, based on a best-value concept rather than the least initial cost, can and should include environmental considerations. The ultimate goal of any City purchase is to obtain the highest quality product or service at the most reasonable price.

Environmental considerations simply become an important part of the product's or service's overall quality. Post purchase monitoring is always important to ensure that the product or service provider is meeting the product's environmental claims.