

**Environmentally Preferable Purchasing (EPP)
Programs and Strategies:
Integrating Environmental and Social Factors into
Procurement Practices**

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Contact information for those interviewed for this report is provided at the bottom of each individual program synopsis in Appendix 1.

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Introduction

Purpose of Report

State and local governments are amongst the largest purchasers in the country, spending a combined total of \$1 trillion on goods and services annually.¹ Many of these governments, recognizing the tremendous power they wield in the marketplace, are attempting to reduce their impacts on society and the environment by purchasing products they deem environmentally preferable or sustainable. These purchasing efforts vary widely, ranging from simple buy-recycled programs to complex environmental and sustainable procurement strategies.

Over the past two decades, many governments have established buy-recycled programs in order to reduce landfill capacity pressures and conserve resources. In recent years, an increased awareness of mounting environmental problems has led some governments to consider environmental attributes other than recycled content (e.g., low toxicity, energy efficiency, or durability) in their purchasing decisions. While these environmental purchasing activities can be described in different ways, strategies that go beyond buy-recycled programs are generally defined as environmentally preferable purchasing (EPP). Strategies that integrate both environmental and social considerations into purchasing are typically called sustainable purchasing, but for the sake of simplicity such strategies will be included under the EPP designation for the remainder of this document.

This report, which was funded by a U.S. Environmental Protection Agency grant to the Pacific Northwest Pollution Prevention Resource Center (www.pprc.org), highlights some of the approaches organizations are using to incorporate environmental and social factors into procurement activities. Based on interviews with representatives from the public and private sectors, it first describes how various organizations choose product categories and attributes for EPP initiatives. The report then describes how these organizations integrate EPP into their everyday purchasing decisions, and what challenges they face in doing so. Finally, it presents some of the positive outcomes produced by the organizations' EPP efforts.

Methodology

In spring 2003, web research was conducted to gain an overview of the EPP-related activities of public and private sector organizations throughout the United States. The information gathered was used to generate a list of over two dozen EPP leaders, each of which was then contacted and asked to contribute to this report.² In the end, twenty-one representatives from fifteen public sector organizations and six representatives from three private sector organizations agreed to be interviewed. The participating organizations are listed below.

- Aberdeen Proving Ground (Department of Defense, Aberdeen, Maryland)

¹ U.S. Department of Commerce, Bureau of Economic Analysis. 2003. *News Release: Gross Domestic Product and Corporate Profits*. Accessed at <http://www.bea.doc.gov/bea/newsrel/gdp203p.pdf>.

² After the EPP leaders were contacted, a request for additional participants was sent out on the EPPNet listserv. However, the posting did not result in any interviews.

- City of Austin, Texas
- City of Boulder, Colorado
- State of California
- Herman Miller, Inc. (Zeeland, Michigan)
- State of Indiana
- King County, Washington
- Commonwealth of Massachusetts
- State of Minnesota
- State of North Carolina
- State of Oregon
- City of Phoenix, Arizona
- City of Portland, Oregon
- City of Seattle, Washington
- Starbucks (Seattle, Washington)
- Swedish Medical Center (Seattle, Washington)
- State of Vermont
- State of Washington

Synopses of these organizations' EPP strategies or programs are included in Appendix 1.

Scope

The scope of this report was limited to EPP activities involving seven product categories: paper goods, office equipment/electronics, cleaning supplies, paint, carpet, lighting, and office furnishings. These categories were chosen because they (1) are most closely associated with the everyday office environment and (2) tend to be the early targets of EPP initiatives. While several of the categories are considered to be building materials, this report will not address comprehensive "green building" efforts. In addition, it will not delve into EPP efforts related to pest management, vehicle procurement and maintenance, "green power," or road maintenance.

What Leads Organizations to Consider EPP?

At the start of their interviews, report participants were asked to describe the factors that prompted their organizations to first consider EPP as a potential procurement strategy. Some interviewees, especially those new to their positions, were unsure what sparked their organizations' initial interest in EPP. Most participants, however, mentioned one or more of the following factors:

- **Potential for cost savings.** Many representatives said that their organizations' interest in EPP stemmed from a need to reduce costs. A number of these interviewees cited the cost savings reported by EPP practitioners such as Massachusetts, King County, and Seattle as important motivating factors.
- **Waste disposal and landfill issues.** Several report participants said that shrinking landfill capacity, the rising costs of waste management, and changes in landfill laws – particularly restrictions on what can or can't be disposed of in landfills – prompted their organizations to explore the use of EPP.
- **Other environmental problems.** Some interviewees said local environmental problems and concerns contributed to their organizations' initial interest in EPP. The most frequently mentioned problem was water pollution, followed by indoor and outdoor air pollution.
- **EPP champions in leadership positions.** Most participants said that early interest and support from “the top” led their organizations to consider EPP as a potential procurement strategy. Many praised their leaders – including governors, mayors, and city or county councils – for promoting EPP principles.

Adoption of EPP

Broad Environmental and Sustainability Mandates

Many state and local governments that adopt EPP strategies do so in response to the institution of broad environmental or sustainability mandates, such as executive orders, statutes, resolutions, and policy directives. A number of these mandates specifically require organizations to engage in EPP, while others simply recommend and encourage the purchase of environmentally preferable products. Below are a few examples.

- In **Washington**, Executive Order 02-03 requires state agencies to establish sustainability objectives and prepare biennial Sustainability Plans. These plans must support the State's long-term procurement goals, which include the expansion of markets for environmentally preferable products and services and a shift to nontoxic, recycled, and remanufactured materials in purchasing and construction.
- Under **North Carolina's** Executive Order 156, also called the Sustainability Initiative, state agencies are required to develop and incorporate policies and practices that preserve natural resources, conserve energy, eliminate waste and emissions, and lessen overall environmental impact. One of the major provisions in the initiative is for state agencies, whenever feasible and practicable, to increase their purchase and use of environmentally preferable products.
- **Phoenix, Arizona's** Resolution No. 18054, passed in 1992, established a purchasing preference for recycled content products, promoted the use of pilot programs, and directed the City to develop a formal pollution prevention policy or program that would limit the City's use of products which could negatively impact the environment.
- In **Vermont**, state agencies are adopting EPP in response to Executive Order 06-94 and the Materials Management Plan. Executive Order 06-94, which launched the Clean State Program, directs all state agencies to manage wastes by preferentially utilizing strategies that focus on pollution prevention, source reduction, and recycling. The Materials Management Plan, completed by the Clean State Council in 1995, requires state agencies to consider environmental factors when purchasing materials or undertaking construction projects, and sets procurement goals for certain products.
- **Minnesota's** Executive Order 99-4, which calls for the statewide institution of pollution prevention efforts, includes a provision that directs state agencies to encourage pollution prevention through their purchasing policies and specifications.

In recent years, EPP directives have become a more common feature in environmental and sustainability mandates. Generally, these directives are somewhat vague. Some call for the increased purchasing of environmentally preferable products, but do not include any specific goals or strategies for implementation. Others provide purchasing targets for only a few product categories, or focus on environmentally preferable products with particular attributes, such as

recycled content or low toxicity. As a result, many organizations operating under EPP directives have a great deal of flexibility in terms of how they will apply EPP, and to what extent.

Cross-Functional Green Teams

While many EPP directives are nonspecific in terms of goals and strategies, some lay the groundwork for EPP implementation by requiring organizations to establish cross-functional “green teams.” These teams, which are often comprised of purchasing representatives and environmental/sustainability experts, are typically responsible for conducting research, targeting product categories and attributes, recommending EPP initiatives, and developing implementation plans for those initiatives.

One example of a green team is **Oregon**’s Sustainable Supplier Council. This council, which was formed under the provisions of Executive Order 00-07, included purchasers, industry experts, vendors, and environmental and sustainability representatives. In late 2000, the Council convened five Product Work Groups to explore sustainable purchasing issues. A work group was formed for each of the five product categories identified in the Executive Order: paper products, office furniture, vehicles and automotive equipment, cleaning and coating products, and building materials. The work groups, each comprised of representatives from a broad range of stakeholders, spent over six months examining specific markets, reviewing State purchasing practices, and developing recommendations for sustainable purchasing policies, targets, and benchmarks in five product areas.

A similar example of a cross-functional green team is **Portland, Oregon**’s Sustainable Procurement Steering Committee. When the Sustainable Procurement Strategy was adopted by Portland and Multnomah County in 2002, the Steering Committee, which consists of representatives from twenty-two city and county agencies, asked key staff from both jurisdictions to serve on product task forces. Once the task forces were assembled, the committee directed them to focus on specific commodity areas – the same five product areas identified in Oregon’s Executive Order – and develop recommendations. Today, the Steering Committee is working with these task forces to select new product areas, conduct product-specific research, choose sustainability attributes, and recommend sustainable purchasing initiatives.

Massachusetts’ Procurement Management Teams can also be described as green teams. During the cooperative development of a Statewide Contract, the Operational Services Division’s contract managers serve as Procurement Team Leaders (PTLs). The first task of the PTLs is to form Procurement Management Teams. They do this by assembling representatives from agencies that purchase large percentages of the products/services included on the contract. Next, the PTLs meet biweekly or monthly with the teams to write contract specifications. The EPP Program representatives, who sit in on the meetings, write environmental specifications for the contract and present them to the Procurement Management Teams for review. If necessary, the EPP staff will gather additional information to alleviate team concerns about specific criteria. Environmental specifications that are approved through this “give and take” process are inserted into the Statewide Contract.

In contrast to many green teams, **Seattle, Washington**'s Commodity Teams have the authority to both develop and implement a number of procurement strategies and process efficiencies unique to their assigned commodities. Under the Copernicus Program, the teams – comprised of a cross section of department purchasers and end-users, buyers, and sustainability experts – research and assign weights to product-specific sustainability attributes. In addition to developing and implementing sustainable purchasing strategies, they communicate with city departments and vendors, assess City contracts, and use annual benefit analyses to evaluate the results of their work.

Cross-functional green teams also exist in the private sector. One example is **Herman Miller, Inc.**'s Environmental Quality Action Team, which sets the company's environmental goals and priorities, oversees the company's environmental efforts, and measures results. Another private sector example is **Starbucks**' Environmental Footprint Team. This team identifies specific environmental initiatives, develops performance metrics, and assesses the company's annual environmental performance.

Formal EPP Programs

Some EPP mandates provide for the implementation of EPP by establishing formal EPP programs in one particular department or subsection of an organization. Two examples follow:

- **King County, Washington:** The Environmental Purchasing Program, created within the Procurement and Contract Services Section, conducts and distributes product-specific research, encourages county departments to test new environmentally preferable products, and assists in the development of specifications and contracts.
- **Massachusetts:** The Commonwealth's EPP Program, which was established within the Operational Services Division (OSD), works with OSD contract managers – also called Procurement Team Leaders – to select products and environmental attributes, and to write environmental contract specifications.

Selection of Product Categories

State and local governments purchase a wide array of goods and services within numerous product categories. When these organizations adopt EPP, they must decide which product categories will be the targets of EPP initiatives. In selecting these product categories, public sector organizations typically consider one or more of the following factors:

- EPP mandates, recommendations, or formal policies
- Potential cost savings
- Upcoming procurement actions (contract development or renewal)
- Products' environmental impacts or potential for environmental improvement
- The availability of environmental alternatives
- Ability to apply leverage in the marketplace

Few organizations use a single factor to select product categories. However, some organizations greatly emphasize one factor over others. **Vermont**, for instance, focuses most of its EPP efforts on product categories specifically mentioned in Executive Order 06-94. **North Carolina**, in contrast, typically bases its choice of product categories on upcoming contract work.

During the first year of the Copernicus Program, the City of **Seattle, Washington** hired analysts to evaluate its procurement data. The analysts determined that 80% of citywide spending on purchases occurs within sixteen product areas. As a result of the analysts' work, the City formed sixteen³ Commodity Teams, each of which was assigned to one particular product area. Every November, the Commodity Teams establish sustainable purchasing goals for the following year. In developing these goals, the teams must select specific products to focus upon. To do this, the teams consider factors such as dollar volume, transaction frequency, date of contract expiration, process efficiencies, social equity, and environmental and technological impacts.

Seattle's **Swedish Medical Center**, a private organization, chose product areas in a similar fashion. Recently, the Center's Supply Chain Management Division calculated how much money the hospital was spending with each of its 7000 vendors. The Division found that only twenty-three vendors were receiving 70% of the hospital's purchasing funds. As a result, the products sold by the twenty-three vendors became the focus of Swedish Medical Center's purchasing strategy. Each month, the Center's Value Assessment Teams sit down with Supply Chain representatives and decide which specific products will be reviewed. In the end, cost-benefit analyses are used to compare potential products to current products.

In **Indiana**, the Greening the Government Taskforce – in conjunction with Procurement Division staff, product end-users, and occasionally the Greening the Government Executive Committee – concentrate on EPP opportunities that seem to offer the best chances for success. The various stakeholders weigh numerous factors when choosing product categories, including the price, quality, availability, and environmental benefits of environmentally preferable alternatives. Similarly, **Phoenix, Arizona**'s Pollution Prevention (P2) Program Section – working

³ Two more Commodity Teams were formed later.

collaboratively with city departments that utilize hazardous materials – selects EPP initiatives that seem likely to move the City towards the achievement of its environmental goals. Factors used to target products include the availability of alternatives, the ability of the City to apply leverage in the marketplace, upcoming procurement actions, and products’ environmental and human health impacts.

During the development of its EPP Guide, **Minnesota**’s Solid Waste Management Coordinating Board ranked all products the State purchases based on three criteria: waste reduction potential, toxicity reduction in the waste stream, and availability of alternatives. At the end of the ranking process, the Board generated a list of over thirty priority products. Today, Minnesota focuses many of its EPP efforts on these products, as well as on the priority products listed in the state’s Product Stewardship Policy.

In 2000, **Starbucks**’ Environmental Footprint Team used The Natural Step framework to identify sourcing, transportation, and store design and operation as the key areas the company should focus upon. The sourcing area was then divided into first- and second-tier priorities based on a number of criteria, including (but not limited to) environmental impact, degree of leverage within the supply chain, and dollars spent.

Selection of Product Attributes

Once EPP practitioners choose product categories to focus upon, they must decide which environmental or sustainability attributes will be included in their efforts. Depending on the specific product or product category, public sector organizations tend to select product attributes based on one or both of the following factors:

- Environmental or sustainability mandates
- Independent product-specific research

Some environmental and sustainability mandates direct organizations to select particular product attributes for EPP initiatives. Such mandates, however, are often only a starting point for those engaging in EPP. Many of the representatives interviewed for this report said that their organizations choose a number of attributes based on their own product-specific research. Typically, this research relies heavily on information provided by peer organizations, non-profits, and third-party product certifiers. While report participants gave numerous examples of information sources, those most commonly cited were Green Seal, the U.S. Environmental Protection Agency, EPPNet, and EPP websites maintained by Massachusetts and King County, Washington.

Minnesota's experience in developing an EPP guidebook illustrates the general process many organizations use to select product attributes. As work on the EPP Guide began, each member of the state's Solid Waste Management Coordinating Board (SWMCB) chose two to five of the Board's thirty-three priority products to research. For the next three months, the members gathered information on their selected products from multiple sources. Once research was complete, each SWMCB member produced a draft paper on one or two particular products. The draft papers were compiled, grouped by product category, and reviewed by over fifty purchasing professionals and consultants throughout the state. At the end of the review period, the SWMCB determined that of many potential environmental attributes, seven – less hazardous, prevents waste, low VOC content, end-of-life management, recycled content, conserves energy, and conserves water – are most commonly available to purchasers of environmentally preferable products. These seven attributes were then incorporated into the EPP Guide.

Like Minnesota, **Massachusetts** tends to base its choice of product attributes on practical considerations. When the Operational Services Division (OSD) begins writing contract specifications for a product, the EPP staff gathers product-specific information from both public and private sector sources. After determining which environmental attributes are frequently chosen and widely available for the product in question, the staff develops specifications based on those attributes. Finally, the EPP representatives work with OSD's procurement teams to determine whether their proposed environmental specifications can be reasonably applied in the marketplace.

Similarly, when investigating the use of a specific environmental attribute, **North Carolina's** Division of Purchase and Contracts (DPC) first conducts web research and solicits advice from the state's Division of Pollution Prevention and Environmental Assistance. Then, based on the

information gathered, the DPC decides whether it's reasonable to add the attribute to bid documents. In some cases, the choice of environmental attributes is largely governed by directives in the state's Sustainability Initiative. For example, state agencies must give priority consideration to used and remanufactured equipment and recycled content paper, and all electronic office equipment purchased must be Energy Star®-compliant.

Santa Monica, California's Environmental Programs Division (EPD) selects sustainability attributes after conducting product-specific research and networking with environmental and sustainable purchasing colleagues. Because of the city's Toxics Use Reduction Program, environmental attributes such as low toxicity, absence of persistent bioaccumulative toxins (PBTs),⁴ and low volatile organic compound (VOC) content are typically given priority in environmentally preferable purchasing efforts. However, recycled content, durability, reduced packaging, and recyclability are also emphasized. As the Sustainable City Plan becomes more widely implemented, the EPD will explore the use of social product attributes – including corporate social responsiveness – in Santa Monica's purchasing decisions.

In **Seattle, Washington**, sustainability attributes may be chosen by a wide variety of stakeholders, including policy makers and the Office of Sustainability and the Environment. However, Copernicus Program Commodity Teams are responsible for researching and assigning weights to those sustainability attributes. Selected attributes vary within and among product areas, but some of the most commonly emphasized environmental attributes include recycled content, reduced material use, low toxicity, reduced packaging, recyclability, low VOC content, and absence of PBTs. Product take-back is required for carpet, and may soon be required for office equipment and furniture. Because Seattle is making the transition from EPP to sustainable purchasing, the Commodity Teams are also placing more emphasis on social equity attributes. One such attribute, "equal benefits," is now mandated under Ordinance Number 119748. This ordinance, which was passed in 1999, requires City vendors to extend equal benefits to employees with spouses and employees with domestic partners.

⁴ Persistent bioaccumulative toxins (PBTs) are naturally occurring or manmade substances that resist breakdown in the environment and bioaccumulate in food chains. They are associated with damage to the nervous and reproductive systems of humans and other animals, and can cause developmental and learning problems in children. See www.ecy.wa.gov/programs/eap/pbt/documents/3WorkingListDescriptions.pdf for Washington State's Draft PBT Working List.

Integrating EPP into Procurement Practices

The selection of product categories and attributes, while important, is only an initial step in EPP implementation. Ultimately, organizations that wish to institutionalize EPP must develop strategies to integrate EPP principles into their procurement practices. These strategies may include:

- Awarding contracts based on a best value approach, rather than a low bid approach
- Instituting purchaser incentive programs
- Mandating the purchase of environmentally preferable alternatives in certain product categories
- Establishing price preferences for certain environmentally preferable products
- Developing preferred supplier programs based on environmental criteria
- Engaging in EPP outreach and education

Best Value Purchasing

Several report participants said that their organizations are using best value purchasing to procure an increasing number of goods and services. In contrast to the traditional “low bid wins” approach to purchasing, best value purchasing allows purchasers to consider a wide variety of factors when awarding contracts, without necessarily having to develop detailed product specifications. Such factors may include the performance of the product or vendor, environmental or social impacts, and life cycle costs.

In **Oregon**, for example, Revised Statute 279 allows state purchasers to consider, in addition to price, the technical competency of suppliers and the quality and performance of their products. State agencies therefore have some authority to integrate the recommendations of the Sustainable Supplier Council (SSC) into the purchasing process. State purchasers generally do this by inserting environmental and social specifications into procurement documents as opportunities arise. In many cases, they rework existing contracts as they come up for renewal.

Seattle, Washington’s Environmentally Responsible Purchasing Policy directs all City purchasers to consider the life cycle of products – including pollutant releases, waste generation, recycled content, energy consumption, depletion of natural resources, and potential impact on human health and the environment – when making purchasing decisions. In keeping with this policy, Seattle’s Commodity Teams adopt a best value or “total cost” perspective when evaluating purchases. This means that they consider, in addition to price and performance, the environmental benefits, social equity benefits, process efficiencies, and technological improvements a particular product provides.

While **Santa Monica’s** purchasing structure is fairly decentralized, the City charter requires purchasers to choose the “lowest and most responsible bid,” regardless of the size of their purchases. To determine whether a bid is the lowest and most responsible, purchasers may use, in addition to price, criteria such as “the quality of the material or services offered” and “the

character, integrity, reputation, judgment, training, experience, and efficiency of the bidder.” This gives City purchasers wide latitude to engage in sustainable procurement. Similarly, in **Washington**, purchasing regulations direct the Department of General Administration to award State contracts to the “lowest responsive and responsible bidder.” In determining which bidder is the “lowest responsive and responsible,” the department may consider factors beyond price, such as the life cycle costs of the products offered. It may also consider the same criteria that are listed above for Santa Monica.

Swedish Medical Center’s Supply Chain Management system allows the hospital to look at costs more holistically than it did in the past. Vendors that approach Swedish with a product must first fill out a Product Evaluation Worksheet. In addition to queries about per item cost and estimated annual usage, this worksheet includes the question, “Can this product be reprocessed?” Vendors that answer “no” to this question must describe any special considerations that the hospital would have to take when disposing of their products. Vendors must also provide information regarding product packaging. Once a vendor completes a Product Evaluation Worksheet, the information on it is entered into the Supply Chain Management Division’s “Opportunity Database.” If the product is later chosen for review, a Value Analysis Team performs a comprehensive cost-benefit analysis to determine whether the new product should replace a product currently in use.

Organizations that engage in best value purchasing sometimes use a point system to award contracts. In such a system, point values are assigned to specific environmental or sustainability attributes. For some purchases, product attributes may be prioritized, so that the more desirable attributes receive higher point values.

Massachusetts, for instance, occasionally includes certain environmental criteria as “desirables” in Statewide bid documents. Vendors are not required to comply with desirables; however, in the bidding process they are granted a certain number of extra points for each desirable they provide. The total number of extra points vendors receive depends on the weights assigned to specific desirables. For example, in most cases, a low-toxicity product is worth more points than a durable product. In the end, bidders that comply with all mandatory criteria and receive the most points for desirables win Statewide Contracts.

When the State of **Minnesota** solicited bids for its current cleaning supplies contract, vendors were asked for the first time to include information about the environmental performance of their products. Bidders received higher points for avoiding product ingredients that are highly toxic, carcinogenic, flammable, or likely to cause skin irritation, respiratory problems, or allergic reactions. Points were also awarded for using plant-based ingredients and for avoiding phosphates and ozone-depleting substances.

In 2002, in a departure from past practices, **Oregon** procured office supplies through a Request for Proposal process rather than a “low bid wins” process. Responding vendors were given points depending on how many environmentally preferable products they carried, and how willing they were to add products to that list annually. In the future, Oregon plans to extend this purchasing strategy to other product categories.

Purchaser Incentive Programs

Some organizations encourage the adoption of EPP by establishing various purchaser incentive programs. In addition to emphasizing the importance of EPP, the institution of such programs allows organizations to recognize and reward purchasers for their efforts and accomplishments.

Massachusetts' Operational Services Division (OSD), which coordinates the state's EPP Program, leads two major efforts to promote EPP amongst purchasers. First, OSD recognizes successful private and public sector environmental purchasing efforts through its Buy Recycled/EPP Awards program. Second, OSD encourages the increased acceptance of environmentally preferable products through its Pilot Purchase Program. Under the latter program, state agencies, counties, and cities can acquire small grants to test specific environmentally preferable products, especially those that are new and largely untried.

Under the **Washington** Department of General Administration's Sustainability Plan, Office of State Procurement unit managers are responsible for working with contract officers to add environmentally preferable products to State contracts. The managers are given a strong incentive to fulfill this responsibility – namely, EPP efforts related to the Office of State Procurement's current Strategic Plan are included in their annual job performance evaluations.

Specific Purchasing Mandates

Government organizations will, on occasion, attempt to push EPP forward by mandating the purchase of products with specific environmental or sustainability attributes. A few examples follow:

- Under the Sustainable Paper Use Policy, which was passed by the City Council in June 2003, agencies in **Portland, Oregon** must purchase paper that meets or exceeds EPA recycled content guidelines. In addition, all paper purchased by the City must be processed chlorine-free (PCF) or totally chlorine-free (TCF)⁵ by July 2004.
- In 1996, the governor of **Vermont** directed state agencies to use PCF paper for all copying and printing needs.
- **Boulder, Colorado**'s purchasing policies require city departments to use 100% post-consumer recycled content paper, low toxicity cleaning products, and FSC-certified lumber. City departments must also purchase electronic products with the lowest standby power usage on the market, as determined by the Federal Energy Management Program (FEMP) (<http://www.eere.energy.gov/femp/>).

⁵ Totally chlorine-free (TCF) paper is produced from virgin fibers that have not been bleached with chlorine or chlorine-based chemicals. Processed chlorine-free (PCF) paper contains recycled fibers that have been processed without the use of chlorine or chlorine-based chemicals and virgin fibers that are totally chlorine-free.

- A 1999 City ordinance requires **Seattle, Washington** to purchase goods and services from contractors that extend equal benefits to employees with spouses and employees with domestic partners.
- **Aberdeen Proving Ground's** Environmentally Preferred Paint Policy directs all of the military installation's personnel and contractors to purchase and use paints that meet or exceed the Aberdeen Proving Ground Paint Standard. Those who wish to purchase paints that do not meet the standard must fill out a written justification form and submit it to the Directorate of Safety, Health and Environment for approval.

Price Preferences

When a new product becomes available in the marketplace, it tends to be more expensive than its well-established counterparts, regardless of whether it's environmentally preferable or not. However, as demand for the product and production capabilities increase, the price of the product typically declines. While this has held true for many environmentally preferable products in recent years, some are still priced higher than traditional products. As a result, some organizations have established price preferences to encourage their purchase. Several examples follow:

- **King County, Washington:** 15% price preference for recycled content paper, 10% price preference for re-refined motor oil
- **Vermont and Oregon:** 5% price preference for recycled content products
- **Minnesota:** 10% price preference for recycled materials
- **Indiana:** 10-15% price preference for recycled content products⁶
- **Washington:** 10% price preference for any recycled content product designated by the EPA's Comprehensive Procurement Guidelines Program⁷
- **Phoenix, Arizona:** 15% price preference for paper products with greater than 10% post-consumer waste content and a 10% price preference for recycled content products

While a few of the representatives interviewed for this report believe that price preferences are an important tool for promoting EPP, most said that they are no longer necessary because of the increasing availability of cost-competitive environmentally preferable products. Several report participants described price preferences as counterproductive, saying that they perpetuate the widely held assumption that environmentally preferable products are always more expensive than traditional products. In addition, some expressed concern that widespread usage of price preferences could actually inhibit the market penetration of environmentally preferable products,

⁶ If the original product specifications require that the product be a recycled content product, this price preference cannot be utilized.

⁷ See WAC 236-48-096.

because they might give vendors an incentive to keep the prices of such products artificially high.

Preferred Supplier Programs

A number of organizations have integrated EPP into their procurement systems by instituting preferred supplier programs. Under such programs, purchasers preferentially buy products from suppliers that undertake specific environmental or sustainability efforts. For example, in 2002 **Starbucks** launched the two-year pilot phase of its Preferred Supplier Program. By participating in the program, coffee suppliers can earn rewards for improving the sustainability of their practices. The company's Coffee Sourcing Guidelines, which are based on a flexible point system, establish prerequisites for quality and independent verification and divide 100 points among three sustainability criteria: environmental impacts, social conditions, and economic transparency. Starbucks pays farmers a premium for their coffee – up to ten cents per pound – based on the number of points they attain, and grants preferred supplier status to those who achieve 100 points.

EPP Education and Outreach

A vast majority of report participants view organizational education and outreach efforts as essential to the institutionalization of EPP. Through first-hand experience, they have found that promoting and raising awareness of EPP amongst purchasers, end-users, and vendors leads to the increased acceptance and utilization of EPP practices. For most public sector organizations, the promotion of EPP involves using any number of the following education and outreach tools:

- EPP guides, websites, newsletters, and listservs
- Employee training programs
- Pilot programs
- EPP conferences, vendor fairs, and product-specific roundtables
- Award programs
- Vendor surveys

Outreach and education are integral components of **Seattle, Washington's** Copernicus Program. When the program was implemented in 1999, the City of Seattle hired staff to oversee internal group management, change management, and communication. The staff, in turn, provided standardized training to all Commodity Team members, offered a Procurement 101 class to City employees, and held trade fairs and symposiums to help familiarize vendors with the new program. Today, the Copernicus Program has well-developed lines of communication, with Commodity Teams, city departments, vendors, and end-users regularly exchanging information and ideas.

In **Portland, Oregon**, a number of agencies and organizations promote sustainable purchasing. The Bureau of Purchases holds EPP seminars for bureau representatives and promotes sustainable products in its newsletter. The Office of Sustainable Development, which has published an online Green Office Guide, maintains web pages on energy, solid waste and recycling, green building, and sustainable technologies and practices. Finally, the Green Team –

a group of City employees working to implement the Sustainable City Principles – educates City purchasers about environmentally preferable office products through workshops and Green Fair events.

The primary role of **King County, Washington**'s Environmental Purchasing staff is to engage in EPP outreach and education. The staff members encourage county departments to test new environmentally preferable products, and work one-on-one with purchasers to develop environmental contract specifications. In addition, they conduct and distribute the results of product-specific research, maintain an EPP website, and produce the Environmental Purchasing Bulletin, an electronic newsletter that provides purchasers with information on the performance, cost, and availability of environmentally preferable products. The staff members also participate in various local and national EPP conferences, and work with the Department of Natural Resources to implement EPP policies in King County's suburban cities. Finally, they produce an annual Environmental Purchasing Report, which they transmit to the County Council, county departments, suburban cities, other jurisdictions, and the community in order to increase information exchange and share EPP success stories.

The Commonwealth of **Massachusetts** educates purchasers about EPP in a number of ways. The EPP Program conducts outreach to the environmental business community and provides educational assistance and technical expertise to state agencies and local governments. In addition, it maintains an extensive EPP website, offers workshops to procurement officials and cooperative purchasing organizations, and sponsors EPP conferences and vendor fairs. The program also publishes an online newsletter called EPP Buyer Update, fact sheets on environmentally preferable products, and the Recycled and Environmentally Preferable Products and Services Guide. Finally, the EPP Program solicits purchaser feedback on environmentally preferable products by inserting environmental questions into contract surveys, or by passing out questionnaires at annual EPP events. This feedback is then used to improve the program's outreach efforts.

Massachusetts also targets vendors in its EPP outreach efforts. During the development of Statewide Contracts, the EPP staff contacts vendors directly to collect information on product attributes and to express interest in environmentally preferable products. In recent years, vendors have become more receptive to this interaction. They have also become more interested in approaching the Operational Services Division (OSD) with new environmentally preferable product lines. As a result, in the summer of 2002, the EPP Program teamed up with the University of Massachusetts' Chelsea Center for Recycling and Economic Development to publish a guide entitled *How to do Business with the Commonwealth of Massachusetts: A Guide for Manufacturers and Suppliers of Environmentally Preferable Products*.⁸ In 2002, in an effort to further encourage the provision of environmentally preferable products, OSD established an annual awards program that recognizes State vendors that go above and beyond the environmental specifications in their contracts.

Phoenix, Arizona's Pollution Prevention (P2) Program Section is very active in terms of EPP outreach and education. It has compiled email distribution lists for users of specific products in the city, and sends out bi-monthly "green product" bulletins. In addition, the Section conducts

⁸ See http://www.state.ma.us/osd/enviro/how_to_do_business.pdf.

brown-bags and seminars with the various city departments, and offers EPP classes twice a year through its "P2 University" program. The P2 Section also conducts on-site compliance assessments of City facilities, during which it identifies hazardous products in the facilities' inventories and recommends the purchase of preferred products. Finally, the P2 Program Section meets with city departments annually to update them on their progress toward meeting a wide range of P2 policies and goals. This provides the P2 Program Section with an avenue to recommend additional P2 opportunities, which may include the piloting of environmentally preferable products.

Starbucks fosters company-wide support for its sustainability goals and standards. Senior management is kept informed of sustainability initiatives through targeted presentations and communications, and the Environmental Footprint Team provides the company with annual updates. Many of the company's internal educational efforts are undertaken by the Corporate Social Responsibility (CSR) Department, which works closely with the company's procurement teams. In one such effort, CSR coordinates topical training sessions for purchasers. This training is geared towards teaching buyers how to think about environmental purchasing, rather than teaching them exactly what to do. Starbucks' CSR Department also works closely with the company's suppliers. By the end of 2003, Starbucks plans to implement a newly developed Supplier Code of Conduct. This code will contain provisions for supplier selection, corrective action plans, and monitoring/auditing by internal and/or independent organizations.

Tracking the Outcomes of EPP Efforts

Once organizations adopt EPP strategies, it is important that they be able to track at least some of the results of their activities. Organizations that gather data on their EPP efforts are able to determine which strategies are producing intended outcomes, and which strategies require adjustment. More importantly, organizations that can demonstrate the positive results of EPP (e.g., cost savings) are in a better position to justify their expenses, request additional resources, and encourage other organizations to adopt EPP. While many of the report participants said that their organizations are only beginning to consider tracking methods, a few have already established formal tracking systems.

Massachusetts, for example, gauges the success of its environmental purchasing efforts by tracking a number of factors, including energy costs, water consumption, chemical consumption, and dollars spent on environmentally preferable products. In addition, the Commonwealth's EPP staff has begun using available calculators – for example, those provided by the EPA – to quantify the environmental benefits of specific purchasing activities. Such benefits include avoidance of greenhouse gas emissions, number of trees saved, amount of material diverted from landfills, and barrels of oil saved. Currently, the EPP staff is working with the rest of the Operational Services Division to develop better tracking techniques, and it is exploring the possibility of creating its own environmental calculator.

In **Minnesota**, the Department of Administration evaluates the success of the state's EPP activities by using environmental product codes to electronically track environmentally preferable product purchases. In addition, the outcomes of EPP efforts are measured by comparing Minnesota's material costs, energy costs, water consumption, insurance costs, recycling rates, and chemical consumption from year to year.

King County, Washington gauges the success of its Environmental Purchasing Program primarily by tracking the County's expenditures on environmentally preferable products. Under King County's Environmental Purchasing Policy, both the Procurement and Contract Services Section and the Solid Waste Division are responsible for preparing an annual report on the status of policy implementation and the accomplishments of county agencies. Data regarding dollars spent on environmentally preferable products is obtained from vendors on County-administered contracts, who must report the purchase of environmentally preferable products to the Environmental Purchasing Program. Reports also include data and/or anecdotal information obtained through direct contact with agencies about such things as savings of energy and water, pesticide reduction, lower toxicity cleaners, etc. Currently, the Environmental Purchasing staff is investigating the practicability of analyzing and reporting the degree to which factors such as employee sick days, workplace accidents and injuries, and worker productivity might be affected by the County's EPP efforts.

In **Seattle, Washington**, the Purchasing Services Division evaluates the success of the Copernicus Program through an annual benefit analysis. The analysis tracks direct and indirect cost savings within each product area and highlights qualitative environmental and social equity gains. Depending on the procurement mechanism and product, the environmental factors tracked

may include waste disposal costs, material costs, energy costs, recycling rates, consumption of chemicals, liability and insurance claims, and workplace accidents and injuries.

Challenges

Towards the end of their interviews, report participants were asked to describe the greatest challenges their organizations face in trying to institutionalize EPP. Responses varied, but the most commonly cited challenges were as follows:

- Lack of resources
- Decentralized purchasing
- Purchaser and end-user behavior
- Vendor resistance
- Product pricing
- Lack of reliable product information
- Attribute conflicts and prioritization issues
- Tracking problems

Lack of Resources

Almost everyone interviewed said a lack of resources poses a major challenge to the institutionalization of EPP. Many representatives said that inadequate funding prevents their organizations from hiring dedicated EPP staff, performing product-specific research, monitoring vendor compliance with contract specifications, tracking the impacts of their EPP activities, and/or conducting outreach and education efforts such as purchaser training and pilot programs. A number of these representatives – including those in **Vermont, Oregon, Boulder,** and **Portland** – view dedicated EPP staff as one of their most critical needs.

Several report participants observed that although today's resource constraints make EPP challenging, organizations can quickly develop EPP initiatives by building on the work of others. Templates for EPP policies, contracts, and guides are now widely available, and EPP practitioners are very eager to share product research and success stories. In addition, some said, organizations can seek and accept assistance from interns, volunteers, and non-profit organizations interested in EPP. For example, in **Portland, Oregon**, the Center for a New American Dream funded an intern to evaluate environmentally preferable graffiti removers.⁹ Of course, as an **Oregon** representative pointed out, interns and volunteers generally come untrained, and with variable schedules. For this reason, the representative said, governments must be willing to be creative and flexible when working with them.

Decentralized Purchasing

A large number of report participants believe that decentralized purchasing hinders the institutionalization of EPP. Many of the interviewees currently working in organizations with decentralized purchasing structures said that their organizations are having problems convincing dozens of purchasers at individual departments that EPP is a worthwhile endeavor. Some representatives tied these problems to a lack of resources for EPP outreach and education,

⁹ See *A Cleaner Way to Clean Up Graffiti*: <http://www.newdream.org/procure/Graffiti.pdf>.

particularly purchaser training programs. Others, however, blamed a “stubborn” purchasing community, saying that with or without EPP training, a large number of purchasers are still reluctant or unwilling to integrate environmental or sustainability considerations into their procurement practices.

While many EPP practitioners see decentralized purchasing structures as a challenge, representatives in **King County, Washington** believe such structures empower purchasers and make them more receptive to EPP. One representative suggested that agency purchasers possess the greatest knowledge regarding what products their departments need, therefore EPP practitioners should concentrate on helping them understand the value of environmentally preferable products and assisting them in the development of contract specifications. “In most instances,” the representative stated, “the expertise of the people who are actually doing the work is the best resource to apply to purchasing decisions.” A **Vermont** representative also pointed out the positive aspects of decentralized purchasing, adding that a cooperative approach to EPP is much more effective than a “dictatorial” approach.

Purchaser and End-User Behavior

A majority of those interviewed said behavior change is one of the most challenging aspects of EPP. One commonly cited reason for this was that purchasers tend to become very comfortable with a particular set of purchasing procedures, so they are often resistant to the introduction of new, unfamiliar procedures – procedures which may add more time to complete the purchase transaction. A more frequently cited reason was negative perceptions of environmentally preferable products. A number of representatives observed that many purchasers and end-users believe environmentally preferable products don’t perform as well as traditional products, sometimes as a result of a bad experience they had in the past. In addition, some said, many purchasers think of environmentally preferable products as being more expensive, because they still tend to focus on the initial cost – the purchase price – of a product, rather than its life cycle costs.

Many report participants suggested that the most effective way to garner support for EPP in the procurement community is to include purchasers in the development of EPP policies and procedures from the very beginning. This, they said, builds a sense of ownership and commitment amongst people who might otherwise dismiss EPP as “someone else’s responsibility.” Many report participants also said that pilot programs, or even simple product demonstrations, can be very effective at overcoming purchaser and end-user skepticism. In **Oregon**, for example, the procurement analyst in charge of the State’s bid for PCF industrial paper quelled potential end-user concerns by having custodians install samples of PCF toilet tissue and paper towels in restrooms.

Vendor Resistance

While many of those interviewed said that vendor resistance to EPP is gradually diminishing, some said that it still presents a significant challenge. In 2002, **Boulder, Colorado** encountered vendor resistance when it asked its main office products supplier if it could provide 100% post-consumer recycled content paper. According to a Boulder representative, the supplier agreed to

carry the paper only after the City signed a contract specifying that it would purchase all of the 100% post-consumer recycled content paper that the supplier procured. Similarly, in June 2003, **Portland, Oregon** encountered strong resistance from the paper industry when it brought its Sustainable Paper Use Policy before the City Council. During Council proceedings, lobbyists attacked the policy, claiming that it contained numerous and significant factual errors regarding paper production, environmental impacts, and fiber supply. Nevertheless, after what a Portland representative described as a lot of “teeth-grinding,” the Council voted unanimously to adopt the policy.

A representative in **Santa Monica, California** suggested that vendor resistance to EPP persists because many vendors regard EPP as just a temporary “blip on the screen” that they don’t need to take seriously. Fortunately, this viewpoint seems likely to change. A **Washington** representative pointed out that today’s sluggish economy has caused companies to place greater value on State business, thereby making them more willing to meet the State’s contract specifications, including environmental requirements. In **Massachusetts**, the Operational Services Division receives numerous calls from vendors who want to know how to get their products on the Commonwealth’s EPP list, because vendors now see the list as a valuable marketing tool. Even **Boulder, Colorado**’s main office products supplier, which originally fought against the City’s EPP efforts, now highlights its work with Boulder as part of its marketing strategy.

Some organizations have found that the best way to reduce vendor resistance to EPP is to involve industry representatives in EPP decision-making. For example, **Seattle, Washington’s** Commodity Teams work cooperatively with vendors to develop products that are consistent with the City’s sustainable purchasing goals. In doing so, they build positive long-term relationships with the vendor community. Other organizations have developed slightly different strategies for addressing vendor resistance. **Massachusetts**, for instance, has been able to reduce vendor resistance by granting vendors some flexibility regarding environmental contract specifications. In some cases, this means giving vendors extra time – a “grace period” – to make changes to their products or manufacturing processes.

Product Pricing

In recent years, thanks in part to the efforts of EPP practitioners, cost-competitive environmentally preferable products have become more widely available. Nevertheless, many report participants said, the higher prices of certain environmentally preferable products still present a sizeable challenge to the institutionalization of EPP. In an attempt to address this challenge, some organizations have begun working with suppliers and vendors to secure lower prices for environmentally preferable products. For example, **Boulder, Colorado** helped their main office products supplier find a paper mill that charged a relatively low price for 100% post-consumer recycled content paper. The supplier then negotiated a significant price reduction on the paper by agreeing to order it in bulk. The City, in turn, signed a contract with the supplier to guarantee that it would buy all of the 100% post-consumer recycled content paper the supplier purchased. As a result of this arrangement, Boulder now pays only \$6.30 per case more for 100% post-consumer recycled content paper than for 30% post-consumer recycled content paper.

Some of the interviewees mentioned that their organizations are trying to secure lower prices for environmentally preferable products by participating in cooperative purchasing efforts. One such effort is **Minnesota's** Cooperative Purchasing Venture (CPV), which allows any public sector organization in the United States to purchase goods and services under the contract terms negotiated by the state's Department of Administration. For an annual membership fee of \$350, program participants can access a number of Minnesota State contracts, including contracts for products on the Materials Management Division's list of Environmentally Responsible Products and Services. By using these contracts, CPV participants can reduce or eliminate the time they spend researching product attributes, and achieve cost savings as high as 75%.

A few report participants pointed out that cooperative purchasing has a downside. A representative in **Seattle, Washington** explained that going in with other organizations on a contract sometimes requires compromise on particular product attributes. In other words, EPP practitioners that engage in cooperative purchasing may not always get everything they want. This was the case when the City of Seattle joined other jurisdictions on a Washington State paper contract. Seattle wanted the contract to include a specification requiring the provision of PCF paper, but not all of the other jurisdictions agreed.

Lack of Reliable Product Information

According to several report participants, many purchasers have problems assessing the validity of environmental claims made by vendors. While a few of these interviewees believe that the Federal Trade Commission's guidelines¹⁰ on environmental labels have helped reduce the use of misleading and deceptive marketing tactics, most feel that their organizations are still quite vulnerable to "greenwashing." An **Indiana** representative commented that EPP practitioners have to "overcome the marketing and advertising messages" of established companies that offer traditional, non-environmentally preferable products. A representative in **California** expressed additional concerns, stating that manufacturers are rarely, if ever, punished for "embellishing" the environmental attributes of their products.

Some of those interviewed said they have encountered problems acquiring information on product constituents, largely because companies try to guard product formulas as proprietary. A number of report participants said they rely on Material Safety Data Sheets (MSDS's) when evaluating products, but some are concerned that these sheets are not always accurate. Apparently, such concerns are justified. In conducting its Paint Study, **Aberdeen Proving Ground** discovered that many paint manufacturers do not update MSDS data regarding product constituents and VOC content when they reformulate their paints. This may pose a significant problem for organizations that want to purchase paints with specific environmental attributes.

Several report participants believe that organizations can avoid some of the challenges associated with product evaluation by relying on third-party product certification, such as that provided by Green Seal. A few, however, have concerns about third-party product certification. A representative in **California**, for instance, suggested that certification standards are sometimes purposefully slanted towards the attributes of products produced by particular companies. The

¹⁰ See the Federal Trade Commission's *Guides for the Use of Environmental Marketing Claims* ("Green Guides"): <http://www.ftc.gov/bcp/gmrule/guides980427.htm>

representative stated, “Sometimes you need a fourth party to independently review the third-party certification.” A **Vermont** representative also expressed qualms about product certification, but for a slightly different reason – namely, the State doesn’t want its vendors to have to pay fees to certifying organizations – fees which may ultimately get passed onto the State through higher prices.

Attribute Conflicts and Prioritization Issues

Most report participants said that their organizations have not developed a strategy for prioritizing environmental and social attributes, largely because they have found it to be extremely difficult. Some representatives noted, however, that their organizations have been forced to make “trade-offs” when attempting to purchase products with multiple environmental attributes. For example, **Aberdeen Proving Ground** decided not to include recycled content in its Environmentally Preferable Paint Standard because of potential conflicts with constituent and VOC content restrictions. The problem for APG is that recycled content paints vary from one batch to the next; therefore, there is no way to verify the absence of hazardous materials or VOC content levels without testing each and every batch of paint, a prohibitively expensive undertaking.

Two interviewees warned that specifying post-consumer recycled content in carpet can lead to negative consequences. First, because there are not many carpet recycling facilities in the United States, old carpet may be shipped hundreds of miles for recycling. This need for long-distance shipping creates a conflict between environmental attributes – one that pits recycled content against reductions in greenhouse gas emissions. Second, recycling carpet back into carpet is extremely energy intensive and requires the use of many toxic chemicals. Organizations that require manufacturers to include post-consumer carpeting material in new carpet may therefore unwittingly contribute to air and water pollution.

Several report participants expressed a desire for an attribute prioritization guide – something that would allow purchasers to quickly determine which product attributes are “most important.” The leaders of **Seattle, Washington**’s Copernicus Program hope to begin using such a guide in the near future. Their sustainable purchasing “scorecards,” which had been introduced to seven Commodity Teams as of October 2003, assign weights to multiple attributes in five categories: cost savings, environmental benefits, social equity benefits, process efficiencies, and functional performance. In effect, the scorecards will allow the program’s Commodity Teams to assess the sustainability of a product based on its life cycle costs, life cycle environmental impacts, and life cycle social equity benefits.

Tracking Problems

Many of those interviewed said that tracking the impacts of their organizations’ EPP efforts is enormously challenging. The most common reason given for this was a lack of resources to establish electronic tracking systems and databases. Another reason, given mostly by representatives in organizations with decentralized purchasing structures, was inadequate tracking and reporting by purchasers. Several report participants commented that their organizations are so busy trying to implement EPP initiatives that they can’t monitor results,

while others said that their organizations are having problems linking specific environmental or social improvements to EPP efforts.

Examples of EPP Success

While organizations often encounter challenges when adopting EPP, many of them have found the struggle to be well worth it. Some EPP “success stories” follow:

- In 2001, **Seattle, Washington**’s Copernicus Project produced direct cost savings of \$2.3 million and indirect savings of \$600,000. In 2002, the direct and indirect cost savings were \$3.14 million and \$400,000, respectively.
- By switching to thinner trash bags, **Starbucks** has saved \$500,000 annually and reduced the company’s annual use of plastic by 750,000 pounds – without impacting performance.
- A few years ago, supply expenses accounted for 23% of **Swedish Medical Center**’s annual net revenues. Today, with the Supply Chain Management system in place, that amount has been reduced to 17.2% – a difference of \$16 million.
- As part of its energy efficiency efforts, **Aberdeen Proving Ground** – an EPA Green Lights partner – is replacing standard PCB-containing fluorescent light ballasts with energy-efficient, PCB-free, electronic ballasts. The project will save the military installation \$1.2 million per year.
- In 2002, **King County, Washington** saved \$550,000 by purchasing environmentally preferable products. In 2003, the County saved \$580,000.
- Without its waste reduction efforts, **Herman Miller, Inc.** would be sending eighty million pounds of waste to the landfill each year. Instead, it is sending only six million pounds, thereby avoiding \$1 million in disposal costs.

Appendix 1

Synopses of EPP Programs and Strategies

Below are brief synopses of the EPP programs or strategies of the eighteen participating organizations. Most of the information contained within these synopses is based on interviews with representatives; however, some information was derived from documents and web pages.

Aberdeen Proving Ground

Background

Aberdeen Proving Ground (APG), which occupies more than 72,500 acres in Harford County, Maryland, has served as a center for Army materiel testing, laboratory research, and military training since 1917. APG currently has more than fifty-five tenants. Approximately 7,500 civilians and 3,000 private business personnel work at the installation, and more than 3,900 military personnel are stationed there. In recent years, a number of executive orders – such as Executive Orders 13101 and 13148 – have directed federal facilities to engage in pollution prevention efforts. APG, already subject to laws like the Federal Energy Policy Act and the Resource Conservation and Recovery Act (RCRA), developed its Pollution Prevention (P2) Program in response.

The P2 Plan (http://www.apg.army.mil/ap2g/PDF/APG_P2_Plan_2002.pdf), first published in 1995 and updated biannually since 1996, applies to all APG activities. The plan's goal is to help APG avoid millions of dollars in cleanup and waste disposal costs while protecting human health and the environment. One of the provisions in the P2 Plan requires employees, whenever practicable, to “purchase products that are made from recovered materials and that are environmentally preferred and energy efficient.” This provision is supported by the Aberdeen Proving Ground Environmentally Preferable Products and Affirmative Procurement Policy, which states that APG personnel who want to purchase non-environmentally preferable items must provide written justification for doing so.

Selection of Product Categories and Attributes

In 1999, the P2 Program office published a study entitled *Environmentally Preferable Paints Minimize Harm, Maximize Savings* (<http://www.apg.army.mil/ap2g/PDF/paintstudy.pdf>). This study was an evaluation of the environmental performance of all 2,200 paints in the military installation's inventory. APG began the study by setting a paint standard (<http://www.apg.army.mil/ap2g/PDF/paintstd.pdf>) – based largely on Green Seal guidelines – that restricted volatile organic compound (VOC) levels and prohibited certain metals (inorganics) and organic compounds. The P2 Program office then used Material Safety Data Sheets (MSDS's) as preliminary screening tools. Of the 2,200 paints initially reviewed, only 107 seemed to meet or exceed the new standards. These 107 paints were sent to a lab for VOC testing. Interestingly, laboratory analyses revealed that thirty-six of the paints contained much higher VOC levels than their MSDS's indicated, and did not, in fact, meet APG standards. At

the end of the study, seventy-one paints qualified for the Environmentally Preferable Paint List (<http://www.apg.army.mil/ap2g/PDF/PaintList021106.pdf>). The list is updated frequently; it now contains the names of more than 150 environmentally preferable paints. The P2 Program office has begun similar studies on degreasers, adhesives, and office supplies and equipment.

Tracking Purchases

Purchasing at APG is carefully monitored. The Hazardous Inventory Tracking System (HITS), a computer database, allows APG to track a hazardous material from its entry onto the installation, through the material's use, to its end-of-life disposition. The P2 Program office uses barcode scanners to check facility inventories against information in the HITS database. The P2 Program office also closely monitors the inventory at the Office Eagle, the APG office supply and hardware store. The store cannot add new inventory unless the P2 Program office approves it. In addition, APG tenants who wish to have the store stock items that are not environmentally preferable must first submit a justification form to the P2 Program office for approval.

EPP Outreach and Education

APG promotes EPP in a number of ways. As part of its P2 classroom training program, the P2 Program office offers, upon request, a free EPP class to military, civilian, and contract employees. The program office also provides links to web-based EPP training and presents P2 success stories and conference presentations on its website. To help purchasers choose environmentally preferable products, the P2 Program office has added symbols to the HITS database. Environmentally preferable alternatives are designated with a green EPP symbol, and the products they should replace are labeled with the universal red "no" symbol. The P2 Program office has recently updated HITS, so that when a purchaser clicks on the "no" symbol, a list of environmentally preferable substitutes pops up. To make EPP easier for customers of the Office Eagle, the P2 Program office places labels on the shelves beneath products that have been designated as environmentally preferable based on a set of environmental criteria (e.g., low VOC levels, durability, and recycled content).

Web Links

Aberdeen Proving Ground Pollution Prevention Program

www.apg.army.mil/ap2g/index.htm

EPA Case Study on APG's Paint Pilot Project: Painting the Town Green

www.epa.gov/oppt/epp/pubs/paint.pdf

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Austin, Texas

Background

In late 2000, a sustainability specialist formed what is now Austin's Sustainable Purchasing Committee (SPC). In its early days, the Committee dealt mostly with theoretical – rather than practical – issues surrounding sustainable procurement. Today, the Committee, which consists mostly of purchasers, is working with the City Manager, the Purchasing Director, and the City Council on a formal Sustainable Purchasing Policy.

Selection of Product Categories and Attributes

The City of Austin has not developed a methodology to choose product categories or attributes for its sustainable purchasing efforts. However, it has already begun focusing on some attributes, particularly toxicity. Using Material Safety Data Sheets and Green Seal standards, the SPC and city departments have evaluated the toxicity of many chemical-containing items purchased by the City. If everything goes as planned, under the Sustainable Purchasing Policy all city departments will be required to go through a special process if they wish to purchase products Austin deems toxic.

Integrating EPP into Procurement Practices

Austin integrates sustainable purchasing into its procurement practices on a product-by-product basis. Because most City purchases are made through Office Depot, it is up to the Sustainable Purchasing Committee to conduct research and determine which of the company's products are sustainable. At the request of the SPC, Office Depot has established an ordering system for Austin that automatically defaults to products the City has designated as sustainable. For example, if a City purchaser orders a dry-erase marker, the system defaults to the low-odor, low-toxicity marker. In the near future, the SPC plans to designate remanufactured toner cartridges and possibly water-based Sharpies as sustainable products.

The City of Austin sees inter-local purchasing agreements as a potential tool for expanding its sustainable purchasing efforts. In 2002, Austin was able to save money on the purchase of ten hybrid vehicles by forging an inter-local purchasing agreement with Houston. Currently, the City is allowed to enter into such agreements with any government entity in the United States. However, inter-local purchasing agreements must be approved by the City Council, so it is uncertain whether they will be used extensively.

Tracking the Outcomes of EPP

At this point, the City of Austin has no concrete plans to track the outcomes of its sustainable purchasing efforts.

EPP Outreach and Education

Austin's EPP outreach and education efforts have thus far been limited to annual purchasing agent meetings, during which Office Depot introduces its new catalogue. At the most recent meeting, the Chair of the SPC gave presentations on sustainability and sustainable purchasing. In addition, Office Depot gave out remanufactured toner cartridges to purchasers who wanted to test their performance.

Web Links

City of Austin Sustainable Purchasing Resources
www.ci.austin.tx.us/sustainable/purchasing.htm

Austin Energy's Green Building Program
www.ci.austin.tx.us/greenbuilder/

Boulder, Colorado

Background

In 2000, the City of Boulder adopted sustainability goals in four broad areas: affordable housing, the economy, the environment, and transportation. Boulder's environmental sustainability goal is "to enact and enhance City policies that cause the Boulder community to become a nationwide environmental leader among communities." To help support achievement of this goal, the Boulder City Council established the Environmental Sustainability Task Force in January 2002. Soon afterwards, Mayor William Toor, who is also the director of the Environmental Center at Colorado University (CU), realized that the University had an environmental purchasing policy that surpassed that of the City. The mayor, deciding he should try to bring Boulder up to CU's standards, directed City staff to expand the City's environmental purchasing policy.

In the months that followed, City staff made several updates to Boulder's environmental purchasing policy, each time seeking approval from the Environmental Sustainability Task Force. In March 2002, the Task Force granted final approval to the Draft Environmental Purchasing Policy Directive (<http://www.ci.boulder.co.us/pwplan/enviroservices/progressreport.pdf>), which was subsequently signed by the City manager and adopted as the Environmental Purchasing Policy. This policy aims to strengthen the markets for environmentally preferable products, minimize material use, maximize diversion of materials from the waste stream, and promote human and environmental health. When the Environmental Purchasing Policy is fully implemented, the Office of Environmental Affairs (OEA) will be responsible for establishing goals for increasing the purchase of environmentally preferable products, measuring progress towards these goals, and revising the Purchasing Directive as needed to increase participation and achieve the stated goals.

Selection of Product Categories and Attributes

Initially, Boulder's Environmental Purchasing Policy will target product categories based on the availability of reasonably priced recycled content alternatives. The Office of Environmental Affairs is uncertain how purchasers will choose product categories and environmental attributes in the future, but it believes that the City will probably follow the federal government's lead. For now, Boulder requires city departments to use 100% post-consumer recycled content paper, low toxicity cleaning products, and Forest Stewardship Council (FSC)-certified lumber. City departments must also purchase electronic products with the lowest standby power usage on the market, as determined by the U.S. Department of Energy's Federal Energy Management Program (<http://www.eere.energy.gov/femp/>).

Integrating EPP into Procurement Practices

Under the Environmental Purchasing Policy, project managers and purchasing agents within City of Boulder departments have three options for integrating EPP into their decisions. They may (1) specify environmental attributes as a necessary criterion in any bid document, (2) award a portion of a contract to bidders offering environmentally preferable products, or (3) accept a bid other than the lowest bid in instances where the more expensive product meets the City's definition of an environmentally preferable product¹¹ or has lower life-cycle costs.

While purchasing in Boulder is decentralized, City purchasers can order many of their supplies online through Corporate Express' E-Way website. As part of their EPP outreach efforts, the Office of Environmental Affairs worked with Corporate Express to develop a special internal City of Boulder E-Way page. When Boulder employees log onto E-Way, they are automatically redirected to this page, which highlights Boulder's sustainability goals, explains why EPP is important, and includes links to the Environmental Purchasing Policy and a Preferred Purchasing List. The Preferred Purchasing List, which was compiled by Corporate Express at the request of OEA, lists the lowest priced recycled content products available through the supplier's contracts with the City of Boulder.

Tracking the Outcomes of EPP

Thanks to some prodding by the Office of Environmental Affairs, Corporate Express and Kinko's have agreed to track Boulder's expenditures on environmentally preferable products.

EPP Outreach and Education

Boulder's Office of Environmental Affairs plans to engage in a number of outreach and education efforts, including working more closely with the purchasing division and Corporate Express, encouraging people to be EPP champions in their departments, and holding meetings to

¹¹ Boulder defines an environmentally preferable product as "a material or product which is durable, repairable, reusable, or recyclable; has a minimum of packaging, toxic content or chemical hazard potential; is resource or energy efficient in any or all phases of its manufacture, use, and disposal; or in its use or disposal minimizes or eliminates the city's potential environmental liability."

inform City employees of environmental purchasing goals and standards. The OEA is already working with custodial staff to eliminate toxic cleaning products, and hopes to eventually establish pilot programs for a number of EPP products.

Web Link

City of Boulder Office of Environmental Affairs
www.ci.boulder.co.us/environmentalaffairs/

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California

Background

In September 2002, California Governor Gray Davis approved Assembly Bill 498 (http://www.leginfo.ca.gov/pub/01-02/bill/asm/ab_0451-0500/ab_498_bill_20020916_chaptered.html). This bill directs the Department of General Services – in consultation with the California Environmental Protection Agency, members of the public, industry, and public health and environmental organizations – to establish a program to provide state agencies with information and assistance regarding environmentally preferable purchasing. As a first step in this process, the Secretary of the State and Consumer Services Agency formed the Environmentally Preferable Purchasing Task Force.

The EPP Task Force, which was granted an official charter¹² in April 2003, is comprised of representatives from various state agencies with specific fiscal, procurement, and environmental policy expertise. It is chaired by the Undersecretary of the State and Consumer Services Agency in conjunction with the Executive Director of the California Integrated Waste Management Board (CIWMB) and the Deputy Director of Department of General Services Procurement Division. Under AB 498 the Task Force's primary responsibilities are to:

- Establish and maintain a periodic forum with appropriate agenda and notes to discuss initiatives, progress, issues, and disseminate information.
- Establish subgroups or working groups to research and or develop assigned tasks in support of the EPP Task Force objectives.
- Encourage participation by all state agencies in all related initiatives to improve the environment.

¹² The full text of the charter can be viewed at: <http://www.ciwmb.ca.gov/EPP/TaskForce/Charter.htm>.

Currently, the EPP Task Force is working on a strategy that will help it fulfill these responsibilities.

Selection of Product Categories

According to a State-sponsored Green Seal study, paper products, janitorial supplies, carpet, and fluorescent lighting are among California's top ten purchases. The EPP Task Force intends to emphasize these product categories in its implementation strategy for AB 498.

Selection of Product Attribute

California's EPP Task Force has not yet been determined how environmental attributes will be chosen or prioritized for the state's EPP efforts. CIWMB is focused on product take-back and recycled content, but other state agencies are more interested in attributes such as energy efficiency, company environmental performance, and product transport.

Integrating EPP into Procurement Practices

Up until recently, California had a decentralized purchasing structure. Purchases were largely made by individual agencies, and it was up to the purchasers at those agencies to insert environmental specifications into contracts. Now, as a result of California's budget crisis, all state agencies are being forced to use State contracts to procure goods and services. CIWMB sees this turn of events as an opportunity to push EPP forward. As AB 498 is implemented, CIWMB plans to work closely with General Services to ensure that all State contracts contain environmental specifications. The Board hopes that, in the future, state agencies will choose to use these contracts – or at least their environmental specifications – rather than purchase products independently.

EPP Outreach and Education

The California Integrated Waste Management Board's most prominent EPP outreach tool is the RecycleStore (<http://www.ciwmb.ca.gov/Recyclestore/>), a showcase for innovative recycled content products. In summer 2003, California received funding to market RecycleStore products, partly through celebrity endorsements. In the years ahead, CIWMB plans to help the Department of General Services develop an EPP training program for procurement officers and an EPP Best Practices Manual.

Web Link

California Environmentally Preferable Purchasing
www.ciwmb.ca.gov/EPP/

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Herman Miller, Inc.

Herman Miller is a leading global provider of office furniture and services. In the early 1950's, the company's founder, D.J. DePree, declared that Herman Miller would be "a good corporate neighbor by being a good steward of the environment." In the early 1990's, Herman Miller built upon this legacy by forming the Environmental Quality Action Team (EQAT) (<http://www.hermanmiller.com/CDA/SSA/Category/0,1564,a10-c607,00.html>), a cross-functional steering committee comprised of company employees. This team's mission is to set the company's environmental goals and priorities, as well to measure results.

When the EQAT was first created, it conducted a comprehensive review of Herman Miller's environmental impact. Once it completed this task, the EQAT established a number of support teams to undertake specific environmental efforts, including the Design for Environment (DfE) Team, the Indoor Air Team, the Low Impact Manufacturing Team, and the Energy Reduction Team. The Low Impact Manufacturing Team played an early and important role in Herman Miller's waste reduction efforts by asking suppliers to significantly change their relationship with the company. As a result of the team's work, Herman Miller suppliers began shipping most of their parts in returnable packaging. This one change has reduced Herman Miller's waste production by millions of pounds per year.

Another key player in Herman Miller's ongoing sustainability efforts is the company's DfE Team, which was formed in 1991 and is responsible for developing environmentally sustainable design standards for new and existing Herman Miller products. In 1997, the DfE Team began to utilize the McDonough Braungart Design Chemistry (MBDC) (http://www.mbdc.com/c2c_mbdp.htm) protocol to evaluate the company's new product designs. The MBDC "Cradle to Cradle" Design Protocol focuses on three key aspects of a product: material chemistry and safety of inputs, ease of disassembly, and recyclability.

In applying the MBDC protocol to a product, Herman Miller's DfE team first solicits chemical data from the company's supply chain. Then, a number of environmental and human health criteria are used to place the product's input materials into one of four categories: green, yellow, orange, or red. "Green" chemicals pose little or no risk in their planned application; "yellow" chemicals pose low to moderate risk. Chemicals that cannot be fully evaluated due to lack of information are categorized as "orange," while high risk chemicals – including all known or

suspected carcinogens, endocrine disruptors, mutagens, reproductive toxins, and teratogens – are categorized as “red.” Once a product’s material chemistry has been evaluated, the DfE team assesses the product in terms of ease of disassembly, recycled content, and recyclability. At the end of the process, the team gives the product an overall rating on a five-point MBDC scale. A product with a rating of four or five has been optimized; a product with a rating of less than four is a candidate for redesign.

Herman Miller engages in a number of environmental outreach and education efforts, both internally and externally. In 1995, Herman Miller reaffirmed its commitment to the environment with the Blueprint for Corporate Community – a declaration that the company has a responsibility to the environment, to the others who live in it, and to future generations. In 2002, the company adopted a formal environmental policy. Today, Herman Miller actively promotes environmental stewardship. Company employees attend environmental conferences and are kept informed of environmental activities via email. Major suppliers are asked to answer some basic environmental questions as part of a certification process. A number of Herman Miller environmental committee members travel extensively to give presentations to customers. In addition, they work with academic institutions such as the University of Michigan, where Herman Miller participates in Corporate Environmental Management Program (CEMP), a graduate program that combines an MBA with a Master’s Degree in Environmental Science. Currently, the company is working with Stanford University to quantify the economic benefits of DfE.

Web Links

Herman Miller Home Page
www.hermanmiller.com

Herman Miller: Environment
www.hermanmiller.com/CDA/SSA/Category/0,1564,a10-c382,00.html

Indiana

Background

On Earth Day, 1999, the late Governor Frank O’Bannon signed Executive Order 99-07 (<http://www.in.gov/idoa/greening/greening/file1.html>), formally establishing Indiana’s Greening the Government (GtG) Program. The intent of this Program, which is managed by the Indiana Department of Administration (IDOA), is to comprehensively improve the environmental performance of State operations while simultaneously boosting efficiency and cost-effectiveness. For ten months after the signing, the GtG Taskforce – representatives from the state’s twelve largest agencies – held biweekly brainstorming sessions to develop an implementation plan for the order. The Greening the Government Plan was unveiled on May 25, 2000. Its provisions, including those related to EPP, are in various stages of implementation.

Selection of Product Categories

Since the early 1990's, the State of Indiana has been purchasing recycled content products under a legislative mandate. Over the past decade, the Indiana Department of Administration's Procurement Division staff has worked to increase the purchase of recycled content products. The GtG Plan built upon these initial efforts by expanding the State's purchasing activities to include EPP. Indiana's original selection of product categories for the GtG Plan was based primarily on the research and recommendations of the GtG Taskforce, which was charged with identifying opportunities that offered significant environmental benefits and the best chances of success. Members of the Taskforce, in conjunction with Procurement Division staff, weighed numerous factors when choosing product categories, including the price, quality, availability, and environmental benefits of environmentally preferable alternatives.

Selection of Product Attributes

Recycled content, energy efficiency, and reduced toxics are the most highly emphasized product attributes in the State of Indiana. Since 1991, State law has granted recycled content products a 10-15% price preference in purchasing. However, under the GtG Plan, Indiana is focusing on environmental attributes other than recycled content. For example, Energy Star® compliance is now included in contract specifications for office equipment. In addition, the State currently recycles and then buys back remanufactured toner cartridges from the Hopewell Center, which employs disabled individuals. The IDOA is also working with the Department of Corrections to "green" the cleaning products that the Prison Enterprises division manufactures for the State.

Integrating EPP into Procurement Practices

Once Indiana's GtG Taskforce members recommend that EPP be applied to a specific product, the recommendation is presented to the GtG Executive Committee – which consists of the Commissioners of the IDOA and the Department of Environmental Management, a Greening liaison from the Governor's Office, the GtG Program Director and the GtG Taskforce Co-Chair – for review. If an EPP recommendation is approved, one of two things occurs. If the product in question is purchased by the State in large quantities, the GtG Program Director works with the IDOA Procurement Division staff to insert environmental criteria into the Statewide Quantity Purchase Agreement (QPA) for that commodity. Individual state agencies who purchase the commodity then automatically receive the environmentally preferable product. If the commodity is not purchased in sufficient quantities to be covered by a QPA, the purchasers in the various state agencies are directed to conduct their own product-specific environmental research before developing new contracts or Requests for Proposals for the product. Buyers who need assistance writing environmental specifications for these documents may request assistance from IDOA's Procurement Division or the GtG Director.

Tracking the Outcomes of EPP

The IDOA Procurement Division tracks dollar amounts spent on recycled content and Energy Star®-compliant products and includes this information in its annual reports. In fiscal year 2000-2001, \$41.3 million was spent on recycled content commodities, representing 19% of total commodity purchases. In fiscal year 2001-02, \$37.4 million (33%) was spent.

EPP Outreach and Education

The State of Indiana promotes EPP in a number of ways. As directed by Executive Order 99-07, Agency Greening Coordinators serve as liaisons between the GtG Taskforce and state agencies. These coordinators are responsible for educating agency employees about issues such as waste reduction and energy efficiency. The GtG Program Director works with the IDOA Procurement Division to educate State buyers on GtG-related procurement issues, helps buyers write environmental specifications upon request, and provides the Procurement Division with EPP information from various publications and listservs. The GtG Director also attends EPP conferences, forms partnerships outside the state on various EPP projects, and sends “Greening Updates” to state agencies every two to three weeks.

Web Links

Indiana Department of Administration: Greening the Government
www.IN.gov/greening

Greening the Government PowerPoint Slideshow
www.in.gov/idoa/greening/facilities/ProcurementAgent0402.pps

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King County, Washington

Background

In 1989, King County adopted the Recycled Product Procurement Policy (<http://www.metrokc.gov/procure/green/policy.htm>). This executive policy directed all county departments to purchase recycled content products “whenever practicable.” In 1995, the County revised the policy, expanding it to include environmentally preferable products. As a result, King County departments are now required to purchase environmentally preferable products to the extent practicable, including products that are of lower toxicity or conserve water, energy, and other resources. To help them meet this goal, the Environmental Purchasing Program, which was established within the County’s Procurement and Contract Services Section in 1989, provides purchasers with information and technical assistance.

Selection of Products and Attributes

King County's selection of products and attributes is based largely on the research conducted by the Environmental Purchasing staff, which currently consists of an analyst and a coordinator. The staff continually gathers product-specific information from a multitude of sources – including Green Seal, trade publications, and other government entities – and then focuses its EPP efforts on products that have large environmental impacts and a number of readily available environmentally preferable alternatives. Some of the goods and services targeted in 2002 are listed below.

- Paper products
- Electronics recycling
- Antifreeze
- Glass
- Toner cartridges
- Can liners
- Motor oil
- Fluorescent lamp recycling
- Vehicles

Integrating EPP into Procurement Practices

Procurement and Contract Services is responsible for purchasing goods and services on behalf of King County departments. Decisions regarding contract specifications are typically made at the individual department and project levels, regardless of the procurement mechanisms used. Except for a few mandatory specifications, the Environmental Purchasing staff does not have the authority to add environmental criteria to bid documents. The staff's primary role, therefore, is to increase county departments' awareness of environmentally preferable products. The staff members do this by conducting and distributing the results of product-specific research, encouraging departments to test new environmentally preferable products, and assisting in the development of environmental contract specifications.

Tracking the Outcomes of EPP

King County evaluates the success of its Environmental Purchasing Program primarily by tracking the County's expenditures on environmentally preferable products. Under King County's Environmental Purchasing Policy, both the Procurement and Contract Services Section and the Solid Waste Division are responsible for preparing an annual report on the status of policy implementation and the accomplishments of county agencies. Data regarding dollars spent on environmentally preferable products is obtained from vendors on County-administered contracts, who must report the purchase of environmentally preferable products to the Environmental Purchasing Program. Reports also include data and/or anecdotal information obtained through direct contact with agencies about such things as savings of energy and water,

pesticide reduction, lower toxicity cleaners, etc. Currently, the Environmental Purchasing staff is investigating the practicability of analyzing and reporting the degree to which factors such as employee sick days, workplace accidents and injuries, and worker productivity might be affected by the County's EPP efforts.

EPP Outreach and Education

Outreach and education are integral features of King County's Environmental Purchasing Program. The members of the Environmental Purchasing staff work one-on-one with County purchasers, helping them find environmentally preferable products that fulfill their departments' specific needs. In addition, they maintain an EPP website and produce the *Environmental Purchasing Bulletin* (<http://www.metrokc.gov/procure/green/bulindex.htm>), an electronic newsletter that provides purchasers with information on the performance, cost, and availability of environmentally preferable products. The staff members also participate in various local and national EPP conferences, and work with the Department of Natural Resources to implement EPP policies in King County's suburban cities. Finally, they produce an annual *Environmental Purchasing Report* (<http://www.metrokc.gov/procure/green/annrep02.pdf>), which they transmit to the County Council, county departments, suburban cities, other jurisdictions, and the community in order to increase information exchange and share EPP success stories.

Web Link

King County Environmental Purchasing
www.metrokc.gov/procure/green/

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Massachusetts

Background

In 1993, *Executive Order 350: Clean State Initiative* laid the groundwork for an expansion of Massachusetts' Buy Recycled Program by directing state agencies to improve their

environmental performance. Soon afterwards, the Commonwealth's EPP Program was created within the Operational Services Division (OSD) to facilitate statewide purchasing of environmentally preferable products. The EPP Program gained momentum in 2002, when Executive Order 438 established the State Sustainability Program. Under this order, state agencies are required to "increase the purchase and use of environmentally preferable products and services, and innovative technologies that reduce the environmental and health impacts of state government." Executive Order 438 also directs agencies to develop and implement policies and programs consistent with the goals of the Beyond 2000 Solid Waste Master Plan, which calls on state government to reduce its generation of solid waste by 70% by 2010.

Currently, Massachusetts' EPP Program receives financial support through provisions in the Commonwealth's Bottle Bill. Under this bill, unclaimed deposits on beverage containers must be directed to the Clean Environment Fund. Each year, the money that accumulates in this fund is allocated to several of the state's environmental agencies, primarily the Executive Office of Environmental Affairs (EOEA) and the Department of Environmental Protection. These agencies, in turn, sign over a portion of the money they receive to the EPP Program. Over the years, the funding arrangement between OSD and Massachusetts' environmental agencies has allowed OSD to maintain two permanent EPP staff positions and finance numerous EPP initiatives. In addition, it has fostered close interaction and cooperation amongst the Commonwealth's EPP staff, purchasing directors, and environmental representatives.

Selection of Products

Massachusetts uses a number of factors to determine which products will be integrated into its EPP Program. Because of the state's current budget crisis, the Operational Services Division tends to focus on products that represent the greatest opportunities for cost savings. As a result, many of the Commonwealth's current EPP efforts involve the purchase of products that are energy-efficient and/or contain few or no toxic components. OSD also chooses products based on their environmental performance. In particular, the Division has a strong preference for products that minimize waste, conserve water, protect open space, conserve natural resources, and/or minimize impact to public health. Finally, OSD selects products based on upcoming contract work, or on the state's ability to apply leverage in the marketplace.

Selection of Product Attributes

Massachusetts' EPP staff is responsible for helping the Operational Services Division choose environmental attributes. When OSD begins writing contract specifications for a product, the EPP representatives gather product-specific information from a variety of sources, including Green Seal, industry representatives, and other public sector EPP programs. After determining which environmental attributes are frequently chosen and widely available for the product in question, they develop specifications based on those attributes. Finally, the EPP staff works with OSD's procurement teams to determine whether its proposed specifications can be practically applied. If a majority of State vendors can meet a particular environmental specification – in addition to price and performance requirements – that specification typically makes it onto the State contract.

Integrating EPP into Procurement Practices

The Operational Services Division is the central purchasing agency for the Commonwealth of Massachusetts. It oversees the cooperative development of Statewide Contracts, which all state agencies must use to procure products. In 1997, statewide procurement reform granted OSD additional authority to integrate environmental and human health considerations into these contracts. Today, Statewide Contracts cover the purchasing of virtually every product or service a public sector organization might need, including thousands of environmentally preferable products and services. They can be used by all political subdivisions, non-profit organizations, and other public entities in the Commonwealth.

During the development of a Statewide Contract, OSD contract managers, who are assigned to specific product categories, serve as Procurement Team Leaders (PTLs). The first task of the PTLs is to form Procurement Management Teams. They do this by assembling representatives from agencies that purchase large percentages of the products/services included on the contract. Next, the PTLs meet biweekly or monthly with the teams to write contract specifications. The EPP representatives, who sit in on the meetings, write environmental specifications for the contract and present them to the Procurement Management Teams for review. If necessary, the EPP staff will gather additional information to alleviate team concerns about specific criteria. Environmental specifications that are approved through this “give and take” process are inserted into the Statewide Contract. Once the contract goes out for bid, OSD will grant vendors some flexibility if they indicate that they will have trouble fulfilling certain environmental requirements. For example, the OSD may give a vendor time – a “grace period” – to redesign a product or process so that it meets the contract’s environmental specifications.

Sometimes certain environmental criteria are included as “desirables” in the Commonwealth’s State-wide bid documents. Vendors are not required to comply with desirables; however, in the bidding process they are granted a certain number of extra points for each desirable they provide. The total number of extra points vendors receive depends on the weights assigned to specific desirables. For example, in most cases, a low toxicity product is worth more points than a durable product. In the end, bidders that comply with all mandatory criteria and receive the most points for desirables win Statewide Contracts.

Tracking the Outcomes of EPP

Massachusetts gauges the success of its environmental purchasing efforts by tracking a number of factors, including energy costs, water consumption, chemical consumption, and dollars spent on environmentally preferable products. In addition, the Commonwealth’s EPP staff has begun using available calculators – for example, those provided by the EPA – to quantify the environmental benefits of specific purchasing activities. Such benefits include avoidance of greenhouse gas emissions, number of trees saved, amount of material diverted from landfills, and barrels of oil saved. Currently, the EPP staff is working with the rest of OSD to develop better tracking techniques, and it is exploring the possibility of creating its own environmental calculator.

EPP Outreach and Education

The Commonwealth of Massachusetts educates purchasers about EPP in a number of ways. The EPP Program conducts outreach to the environmental business community and provides educational assistance and technical expertise to state agencies and local governments. In addition, it maintains an extensive EPP website, offers workshops to procurement officials and cooperative purchasing organizations, and sponsors EPP conferences and vendor fairs. The program also publishes an online newsletter called *EPP Buyer Update* (http://www.state.ma.us/osd/enviro/newsletter_form.html), fact sheets on environmentally preferable products, and the *Recycled and Environmentally Preferable Products and Services Guide* (http://www.state.ma.us/osd/enviro/INFO/VOL_17_SEC_1.pdf). Finally, the EPP Program solicits purchaser feedback on environmentally preferable products by inserting environmental questions into contract surveys, or by passing out questionnaires at annual EPP events. This feedback is then used to improve the program's outreach efforts.

In addition to the EPP Program, the Operational Services Division currently leads two programs that encourage purchasers to adopt EPP practices. First, OSD recognizes successful private and public sector environmental purchasing efforts through its Buy Recycled/EPP Awards program. Second, OSD encourages the increased acceptance of environmentally preferable products through its Pilot Purchase Program (<http://www.state.ma.us/osd/enviro/awdspurc.htm#pilot>). Under the latter program, state agencies, counties, and cities can get a small amount of EOECA funding to test specific environmentally preferable products, especially new ones. Organizations that participate in the Pilot Purchase Program must fill out OSD feedback forms, which are then used to promote the products to purchasers throughout the Commonwealth.

Massachusetts also targets vendors in its EPP outreach efforts. During the development of Statewide Contracts, the EPP staff contacts vendors directly to collect information on product attributes and to express interest in environmentally preferable products. In recent years, vendors have become more receptive to this interaction. They have also become more interested in approaching OSD with new environmentally preferable product lines. As a result, in the summer of 2002, the EPP Program teamed up with the University of Massachusetts' Chelsea Center for Recycling and Economic Development to publish *How to do Business with the Commonwealth of Massachusetts: A Guide for Manufacturers and Suppliers of Environmentally Preferable Products* (http://www.state.ma.us/osd/enviro/how_to_do_business.pdf). Recently, in an effort to further encourage the provision of environmentally preferable products, OSD established an annual awards program that recognizes State vendors that go above and beyond the environmental specifications in their contracts.

Web Links

Massachusetts Environmentally Preferable Products Procurement Program
www.state.ma.us/osd/enviro/info/about.htm

Massachusetts Executive Office of Environmental Affairs
www.state.ma.us/envir/

EPA Case Study on Massachusetts' EPP Program
www.epa.gov/oppt/epp/pubs/mass.pdf

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Minnesota

Background

In 1980, Minnesota established the State Resource Recovery Plan. The purpose of this plan, in part, is to promote waste reduction and the procurement of recycled and recyclable products by state agencies. At its core, the Resource Recovery Plan is a solid waste hierarchy, with resource conservation – reuse and waste reduction – as the highest priority, followed (in decreasing preference) by recycling, composting, waste-to-energy, and landfilling. The plan is backed by a number of State statutes, including one that directs the Department of Administration commissioner to take the recycled content and recyclability of products into consideration in bid specifications.

Over time, Minnesota's emphasis on recycled content purchasing has evolved into EPP. In April of 1999, Governor Jesse Ventura signed *Executive Order 99-4: Providing for the Implementation of Pollution Prevention and Resource Conservation by State Government* (<http://www.moea.state.mn.us/lc/executiveorder.cfm>). This executive order, which requires state agencies to engage in pollution prevention efforts, includes a provision that reads, "State agencies shall, in cooperation with the Department of Administration, encourage pollution prevention through their purchasing policies and specifications." That same year, the Minnesota Office of Environmental Assistance (OEA) adopted the nation's first Product Stewardship Policy (<http://www.moea.state.mn.us/publications/ps-policy.pdf>). As a result, the OEA is working cooperatively with manufacturers, retailers, end-users, NGO's, and other interested parties to develop voluntary commitments to increase the collection and recycling of certain products.

Selection of Products and Product Categories

The State of Minnesota focuses many of its EPP activities on the products and product categories included in the *Environmentally Preferable Purchasing Guide* (<http://www.swmcb.org/EPPG/default.asp>). This online manual was published in 2000 by the state's Solid Waste Management Coordinating Board (SWMCB), an organization comprised of

one staff person from each county and one representative from the Office of Environmental Assistance. The EPP Guide covers thirty-three products in seven product categories. These products and product categories are listed below.

PAPER PRODUCTS

- Copy Paper
- Envelopes

PRINTING

- Printing Services
- Inks
- Printing Papers

OFFICE MACHINES

- Copiers
- Computers and Monitors
- Laser Printers
- Toner and Inkjet Cartridges

VEHICLES

- Motor Oil
- Antifreeze
- Parts Washing
- Retread Tires
- Traffic Control Products
- Road Aggregate
- Alternative Fueled Vehicles
- Manhole Adjusting Rings

OUTDOOR FURNISHINGS

- Plastic Lumber
- Treated Wood

GROUNDS MAINTENANCE

- Landscape Mulch
- Hydraulic Mulch and Hydroseeding
- Ice Control for Roads and Walkways
- Plastic Temporary Fencing

BUILDING MAINTENANCE

- Integrated Pest Management: Indoors
- Office Cleaners
- Plastic Waste Bags
- Garbage and Recycling Services
- Paint

- Lighting and Occupancy Sensors
- Carpet
- Office Furniture and Panel Systems
- Bathroom Fixtures and Partitions
- Hand Drying

The above products were chosen by the Solid Waste Management Coordinating Board in a process that lasted about a year and a half. At the start of the selection process, the SWMCB decided to rank all products the State purchased based on three criteria: waste reduction potential, toxicity reduction in the waste stream, and availability of alternatives. Eventually, the Board generated a list of thirty-three priority products. Each SWMCB member then chose two to five of these products and, as part of their regular jobs, conducted extensive research.

For three months, the SWMCB members gathered product-specific information from numerous sources, including the federal government, Green Seal, Scientific Certification Systems (SCS), and state and local EPP practitioners. Once research was complete, each member – following very strict formatting guidelines – produced a draft paper on one or two particular products. The draft papers were compiled, grouped by product category, and reviewed by over fifty purchasing professionals and consultants throughout the state. Once the papers were reviewed and edited, the material was organized into an online reference tool that could be easily updated every year or two.

In addition to targeting the products in the EPP Guide, the State of Minnesota focuses EPP efforts on the priority products listed in its Product Stewardship Policy. Currently, these products – carpet, paint, electronic products, and automobiles – are targets of OEA product stewardship initiatives. In 2001, the Office of Environmental Assistance joined representatives of the carpet industry, non-governmental organizations, and other government agencies to develop the first national product stewardship agreement in the United States, called the Memorandum of Understanding for Carpet Stewardship (<http://www.moea.state.mn.us/carpet/MOU-020108.pdf>). The OEA is currently participating in a similar effort to develop a national product stewardship agreement for the electronics industry.

Selection of Product Attributes

Minnesota's choice of environmental attributes is based largely on the work of the Solid Waste Management Coordinating Board and the Office of Environmental Assistance. During the development of its EPP Guide, the SWMCB decided to focus on what it deemed to be the most widely available product attributes: less hazardous, prevents waste, low volatile organic compound (VOC) content, end-of-life management, recycled content, conserves energy, and conserves water. In the published guide, symbols are used to designate products with these attributes.

The Office of Environmental Assistance, which participated in the development of the EPP Guide, tends to focus on product attributes covered by executive orders and State statutes, as well as those related to water quality issues. In Minnesota, strong legal support exists for the purchasing of recycled content products, materials with reduced toxicity, and reusable and

durable goods. In addition, because of the unusually large number of rivers and lakes in the state, products with little or no impact on water quality are considered to be highly preferable.

Integrating EPP into Procurement Practices

In Minnesota, the Department of Administration (Admin) has central purchasing authority. For this reason, the Office of Environmental Assistance believes it can promote EPP most efficiently – and most effectively – by encouraging Admin purchasing agents to add environmental specifications to State contracts. To this end, the OEA has established a three-step approach to environmental purchasing. First, the OEA evaluates a product currently on State contract. If it determines that the product’s ingredients can negatively affect human health and/or the environment, it identifies environmentally preferable alternatives to that product. Next, the OEA works with the Department of Administration to create bid specifications that will get one or more of these alternatives on State contract. Finally, the OEA offers training sessions to Admin procurement agents in order to educate them about newly available environmentally preferable products, as well as to promote their purchase.

Tracking the Outcomes of EPP

The State of Minnesota evaluates the success of its EPP activities by using environmental product codes to electronically track environmentally preferable purchases. In addition, the outcomes of EPP efforts are measured by comparing the State’s material costs, energy costs, water consumption, insurance costs, recycling rates, and chemical consumption from year to year.

EPP Outreach and Education

Several Minnesota state agencies engage in EPP education and outreach. The Office of Environmental Assistance, in addition to offering EPP training to purchasers, maintains web pages devoted to EPP and product stewardship. The OEA also participates in EPP workshops, conferences, and meetings, and is currently exploring opportunities to expand its product stewardship activities by partnering with other states.

The Acquisitions Manager for Minnesota’s Materials Management Division (MMD) leads the cross-agency Environmental Coordinators Work Group. This work group meets quarterly and deals with environmental concerns in the state. Among the aspects addressed are the purchasing of environmentally responsible/recycled content products, disposal of environmentally hazardous waste, recycling post-use material, and recovery and reuse of material. The work group provides a forum for developing ideas about how to best meet the State’s mission to be environmentally responsible, and how Minnesota can attain leadership in this regard. It gives agencies a voice in establishing priorities, as well as a chance for receiving updates on what is happening in the environmental arena. All agencies and purchasers are invited to attend.

The MMD also manages the Cooperative Purchasing Venture (CPV) (<http://www.mmd.admin.state.mn.us/cpv2.htm>). This program allows any public sector organization in the United States to purchase goods and services under the contract terms

negotiated by the Department of Administration. For an annual membership fee of \$350, program participants can access a number of Minnesota State contracts, including contracts for products on MMD's list of Environmentally Responsible Products and Services. By using these contracts, CPV participants can reduce or eliminate the time they spend researching product attributes, and achieve cost savings as high as 75%.

The Solid Waste Management Coordinating Board, which is primarily concerned with the development of a long-term Regional Solid Waste Master Plan, occasionally conducts EPP-related studies and makes the results available on their website. While the SWMCB does not actively promote its EPP Guide outside the State of Minnesota, the Board encourages other public sector organizations to use the guide as a template.

Web Links

State of Minnesota Environmentally Preferable Purchasing
www.moea.state.mn.us/lc/purchasing/index.cfm

State of Minnesota Product Stewardship
www.moea.state.mn.us/stewardship/index.cfm

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North Carolina

Background

In 1998, Governor James Hunt launched N.C. Project Green with *Executive Order 156: State Government Environmental Sustainability, Reduction of Solid Waste, and Procurement of Environmentally Preferable Products* (<http://www.p2pays.org/ref/03/02221.pdf>). This executive order, also known as the Sustainability Initiative, directs state agencies to build upon North Carolina's waste reduction and recycling efforts by developing and incorporating policies and practices into their daily operations that "preserve natural resources, conserve energy, eliminate waste and emissions, and lessen overall environmental impact." One of the major provisions in Executive Order 156 is for state agencies, whenever feasible and practicable, to increase their purchase and use of environmentally preferable products. Interestingly, according to a North Carolina representative, Governor Hunt drew some of his inspiration for N.C. Project Green from Ray Anderson, the founder of Interface, Inc.

Selection of Product Categories

North Carolina typically chooses product categories based on upcoming contract work in the Division of Purchase and Contracts (DPC). As products are cycled through periodic standard bid and proposal processes, it becomes possible for DPC to incorporate environmental attributes into contract specifications. For example, over the last two procurement cycles the minimum recycled content requirement for carpet purchased under State term contract has increased. Similarly, the last two motor oil procurement cycles included re-refined motor oil, and the last cycle resulted in re-refined oil being the only product available in certain weight categories (e.g., 10W 40). Sometimes DPC will develop a contract specifically for an environmentally preferable product, such as remanufactured toner cartridges.

Selection of Product Attributes

Generally, when investigating the use of a specific product attribute, North Carolina's Division of Purchase and Contracts first conducts web research and consults third-party certifiers such as Green Seal. The DPC then contacts the Division of Pollution Prevention and Environmental Assistance (DPPEA) – which actively gathers product information and promotes the purchase of environmentally preferable products – to ask for advice. Finally, the DPC determines whether it's reasonable to add the attribute to bid documents. In some cases, certain environmental attributes are given higher priority than others because of Executive Order 156 directives. For example, state agencies must give priority consideration to used and remanufactured equipment and recycled content paper, and all electronic office equipment purchased must be Energy Star®-compliant.

Integrating EPP into Procurement Practices

The Division of Purchasing and Contracts has a broad mandate to put environmentally preferable products out on term contracts, which are used to buy products for all state agencies at a set price. In the section regarding EPP, Executive Order 156 stipulates, "When environmentally preferable and recycled content products are offered that are comparable in quality, availability, and price to products not having recycled content or similar environmental attributes, term contracts shall carry only the environmentally preferable products." For a number of years this provision was applied to recycled content paper, which was the only paper that was allowed on State term contract. Unfortunately, the specifications were relaxed somewhat in 2003, and agencies can now purchase slightly cheaper virgin paper. A more positive example, though, is the situation with re-refined motor oil, as described above.

Tracking the Outcomes of EPP

Currently, North Carolina is largely unable to track the outcomes of its EPP efforts. However, under Executive Order 156 and various North Carolina statutes, the Division of Pollution Prevention and Environmental Assistance must prepare annual reports (<http://www.p2pays.org/ref/26/25004.pdf>) on state agency waste reduction and recycled product purchases.

EPP Outreach and Education

North Carolina's Division of Pollution Prevention and Environmental Assistance is responsible for encouraging EPP statewide. In June 2003 the division's EPP coordinator position, which has been vacant for several years, was filled. The coordinator has been charged with promoting EPP initiatives in both the public and private sectors. Planned outreach efforts include the development of a more extensive EPP website and the initiation of onsite visits, which would be made to purchasers in certain key agencies or institutions to help them with specific questions regarding the procurement of environmentally preferable products and/or to encourage their commitment to EPP. In addition to these activities, the DPPEA hopes to conduct training and outreach at conferences and other settings where purchasers come together, and possibly pilot projects.

Web Links

North Carolina Environmentally Preferable Procurement
www.p2pays.org/BuyRecycled/

N.C. Project Green
<http://www.sustainablenc.org>

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Oregon

Background

In May 2000, Governor John Kitzhaber signed *Executive Order 00-07: Development of a State Strategy Promoting Sustainability in Internal State Government Operations* (http://www.oregonsolutions.net/execOrder-2000/sustain_eo-2000.cfm). This executive order set a goal for the state to become sustainable within a generation – by the year 2025 – and

directed the Department of Administrative Services (DAS) to lead early sustainability efforts within state government. Some of DAS's assigned tasks were to (1) aggressively pursue cooperative purchasing agreements, (2) appoint a Sustainable Supplier Council, (3) work with the Sustainable Supplier Council to develop sustainable purchasing policies, targets, and benchmarks for five product areas, and (4) coordinate efforts to better market Oregon's sustainable products, industries, and services.

Later that year, the director of DAS asked a number of public purchasers, industry experts, vendors, and environmental and sustainability representatives to serve on the Sustainable Supplier Council (SSC) (<http://tpps.das.state.or.us/purchasing/sustainable/supplier-council-roster.php>). At the first SSC meeting, the Council was asked to address five areas related to sustainable purchasing: policies, targets, benchmarks, barriers, and other areas of opportunity. In October of 2000, the SSC organized five Product Work Groups – each assigned to a specific product category. These work groups, which included representatives from a broad range of stakeholders, spent the next several months examining specific markets, reviewing State purchasing practices, and developing product-specific recommendations. In June 2001, the SSC published the Sustainable Supplier Council Report. This report presented the research findings of the Product Work Groups, as well as a total of 151 recommendations.

Soon after the Sustainable Supplier Council Report was published, the State Legislature passed the Oregon Sustainability Act (http://www.oregonsolutions.net/sust_act/HB3948.cfm), which presented the state's sustainability goals and created a Sustainability Board within the DAS. One of the many objectives listed in the Act is for State purchases to be made “so as to serve the broad, long term financial interests of Oregonians, including ensuring that environmental, economic, and societal improvements are made so as to enhance environmental, economic, and societal well-being.” In June 2003, Governor Theodore Kulongoski signed *Executive Order 03-03: A Sustainable Oregon for the 21st Century* (http://www.oregonsolutions.net/execOrder/sustain_eo.cfm). This order, which was designed to support the Oregon Sustainability Act, directs the Sustainability Board to establish and convene a Sustainability Leadership Team to serve as a liaison between the Board and state agencies. In addition, it lays the groundwork for the development of state agency sustainability plans. Follow-up directives to Executive Order 03-03 require state agencies to develop – in consultation with the Department of Environmental Quality and the Western States Contracting Alliance (<http://www.aboutwsca.org/>) – sustainability-focused purchasing and disposal policies, including targets and benchmarks for personal computers, monitors, PDA's, cell phones, servers, and related peripheral equipment. Within six years, these policies could result in measurable targets, such as direct supplier take-back of electronic products the end of their operational lifetimes.

Selection of Product Categories

The State of Oregon currently focuses its sustainable purchasing efforts on five product areas: paper products, office furniture, vehicles and automotive equipment, cleaning and coating products, and building materials. These product areas, which are listed in Executive Order 00-07, were selected based on several factors, including expenditure, dollar volume, contract timing, product information, and availability of alternatives. In the near future, the State plans to expand its sustainable purchasing activities to electronic products, partly because of rising disposal costs.

Selection of Product Attributes

While conducting research in 2000, Oregon's SSC Product Work Groups turned to state environmental agencies, Green Seal, the EPA, industry representatives, and numerous other organizations for information on product attributes. In its June 2001 report, the Sustainable Supplier Council outlined thirty-one product sustainability indicators that State purchasers could consider when purchasing goods or services, including energy efficiency, company environmental performance, life cycle cost, post-consumer recycled content, reusability, lack of toxic materials, recyclability, and contribution to local economic stability¹³. The report also contained the research findings of the Council's Product Work Groups, each of which developed a narrowed list of attributes that were directly relevant to their assigned product categories.

Integrating EPP into Procurement Practices

Oregon Revised Statute 279 allows State purchasers to consider, in addition to price, the technical competency of suppliers and the quality and performance of their products. State agencies therefore have some authority to integrate SSC recommendations into the procurement process. According to an Oregon representative, most State purchasers are very willing to make sustainable purchasing a part of their job, largely because they were included in the SSC Product Work Groups. These purchasers generally do this by inserting environmental and social specifications into procurement documents as opportunities arise. In many cases, they rework existing contracts as they come up for renewal. In 2002, in a departure from past practices, Oregon procured office supplies through a Request for Proposals process rather than a "low bid wins" process. Responding vendors were given points depending on how many environmentally preferable products they carried, and how willing they were to add products to that list annually. In the future, Oregon plans to extend this purchasing strategy to other product categories.

Tracking the Outcomes of EPP

Currently, the State of Oregon cannot gauge the success of its sustainable purchasing efforts. State agencies have tried to implement all SSC recommendations to the greatest extent possible, but the Department of Administrative Services has not had the opportunity to evaluate outcomes or produce follow-up reports.

EPP Outreach and Education

Oregon's Department of Administrative Services promotes sustainable procurement on its website, and occasionally makes sustainable purchasing presentations at conferences and colleges. It hopes to develop an online sustainable products list in the future.

¹³ See Appendix 4 for a list of the thirty-one product sustainability indicators.

Web Links

Department of Administrative Services: Sustainable Purchasing
<http://tpps.das.state.or.us/purchasing/sustainable/sustain-menu.php>

Sustainable Oregon
www.oregonsolutions.net/oregon/index.cfm

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Phoenix, Arizona

Background

In early 1992, the City of Phoenix's Environmental Quality Commission (EQC), a citizen's group appointed by the Mayor and City Council, recommended that Phoenix adopt a comprehensive pollution prevention program. In July, the City Council acted on the EQC recommendation by passing *Resolution No. 18054: City Recycling Ordinance* (<http://www.sustainable.doe.gov/codes/phoenix.shtml>). This environmental initiative established a purchasing preference for recycled content products, promoted the use of pilot programs, and directed the City of Phoenix to develop a formal pollution prevention policy or program that would limit the City's use of products which could negatively impact the environment.

In 1993, Phoenix formed a Pollution Prevention (P2) Team to oversee the development of a pollution prevention program. This Team, comprised of management representatives from seventeen city departments, was asked to produce a Citywide P2 Plan. In December 1994, the plan was completed and approved by the Phoenix City Council. It was officially implemented as the P2 Program in September 1995, with the hiring of three P2 staff members in the city's Office of Environmental Programs (OEP). Today, the OEP coordinates the P2 Program's efforts to achieve the following goals: to reduce the use of hazardous materials and eliminate the generation of hazardous waste; to enhance the City's approach to environmental management by reducing liability, reducing costs, and improving worker safety; and to provide ongoing technical assistance.

Selection of Product Categories

The P2 Program Section weighs numerous factors when targeting product categories, including the availability of alternatives, the ability of the City to apply leverage in the marketplace, upcoming procurement actions, and products' environmental and human health impacts. The

Section, working collaboratively with city departments that utilize hazardous materials, selects EPP initiatives that seem to have the greatest potential for moving the City towards the achievement of its environmental goals

Selection of Product Attributes

Phoenix's Interim Purchasing Policy, approved in 1996, outlines an approach and establishes criteria for selecting environmentally preferable products. These criteria are based on information contained in Material Safety Data Sheets (MSDS's) and focus on attributes such as pH, toxicity, flashpoint, carcinogenicity, and corrosiveness. Other attributes may be considered, depending on the product category. For example, in order to eliminate the most hazardous products, the City's pesticide contracts specify the absence of particular ingredients.

Integrating EPP into Procurement Practice

In accordance with the Interim Purchasing Policy, all vendors must provide MSDS's, agree to take back excess stock, and provide training on the safe handling of their products. The P2 Program Section reviews the materials in every product bought by the City of Phoenix, with the MSDS's serving as an initial screen. All products are evaluated for their potential effects on human health/safety and the environment, given a rating by the Section, and added to the City's Reviewed Products List (RPL) (<http://phoenix.gov/P2/rpl.html>). On the RPL, environmentally preferable products are designated with a green button. Products that are not preferred but have readily available environmentally preferable substitutes are designated with a yellow button that, when clicked, produces a list of environmentally preferable substitutes. Products that are not preferred but have no feasible alternative (e.g., water treatment chemicals) are designated with a purple button.

Tracking the Outcomes of EPP

The P2 Program Section tracks the hazardous material inventories of all City facilities using an online Environmental Data Management System (EDMS) (<http://phoenix.gov/P2/overview.html#DATA>). This database, which allows users to determine the overall percentage of environmentally preferable products being purchased by each city department, helps department purchasers monitor their progress towards purchasing goals.

EPP Outreach and Education

The P2 Program Section is very active in terms of EPP outreach and education. It has compiled email distribution lists for users of specific products, and sends out "green product" bulletins to its internal listserv. In addition, the Section publishes a bimonthly newsletter that gives recognition to City employees and departments that have undertaken pollution prevention initiatives, and it has implemented an incentive program that offers prizes to employees who suggest successful P2 ideas. The division conducts brown-bags and seminars with the various city departments, and offers EPP classes twice a year through its "P2 University" program. Finally, the P2 division conducts on-site compliance assessments of City facilities, during which they ask if the department is willing to get rid of a hazardous product and pilot a preferred

product. In the near future, the P2 Coordinator plans to expand the Section's assessment efforts by including in each department briefing a "report card" that gauges the department's level of P2 Program implementation. The department's status will be based on degree of compliance with the 1994 Pollution Prevention Plan.

Web Link

City of Phoenix: Pollution Prevention Program
<http://phoenix.gov/P2/index.html>

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Portland, Oregon

Background

In November 1994, Portland's City Council adopted the Sustainable City Principles (http://www.sustainableportland.org/Sustainable_City_Principles.pdf). These principles, based on overarching sustainability goals, included a provision directing City staff to (1) purchase products "based on long term environmental and operating costs and find ways to include environmental and social costs in short term prices" and (2) purchase products "that are durable, reusable, made of recycled materials, and nontoxic." Four years later, the Sustainable Portland Commission, a 15-member citizen commission appointed by the Mayor, conducted an environmental evaluation of City operations. One of the Commission's numerous recommendations to the City was to educate its employees about environmentally preferable products; another was to purchase highly energy-efficient products.

During the summer of 2001, the Mayor's office directed the Bureau of Purchases to produce a Sustainable Procurement Strategy, starting with the establishment of a Sustainable Procurement Steering Committee (SPS). In response, Portland's purchasing called together City staff members who were known to be working on issues related to sustainability and/or the procurement of sustainable goods and services, and then asked them to suggest other candidates

for the Committee. In November 2001, the SPS – comprised of representatives from numerous City of Portland and Multnomah County agencies – held its first official meeting.

In 2002 the Sustainable Procurement Steering Committee produced the *Sustainable Procurement Strategy: A Joint City of Portland and Multnomah County Effort* (<http://www.portlandonline.com/shared/cfm/image.cfm?id=4017>). This plan, which was adopted by the City of Portland and Multnomah County, emphasized the desire of both the City and the County to “buy less polluting products and services from less polluting companies that also provide additional societal benefits beyond the jobs, products, and services they already deliver.” It also outlined a process for integrating environmental, social, and economic factors into specific purchasing decisions. As an initial step in this process, the Steering Committee asked key staff from the City and County to serve on product task forces. Once assembled, the Task Forces were asked to focus on specific commodity areas and develop recommendations.

On June 11, 2003, the Portland City Council adopted Resolution 36145 (<http://www.portlandonline.com/shared/cfm/image.cfm?id=15614>), establishing the *Sustainable Procurement Strategy: A Joint City of Portland and Multnomah County Effort – 1st Annual Review – 2003* (<http://www.portlandonline.com/shared/cfm/image.cfm?id=15613>) as binding City policy. This 171-page document presents the recommendations of the Task Forces and directs the City of Portland and Multnomah County to implement a number of specific purchasing and product usage recommendations in five product areas. In Portland, implementation of the Strategy will be led by the Bureau of Purchases, the Bureau of General Services, the Office of Sustainable Development, and the City Attorney. In Multnomah County, the Central Procurement and Contracts Administration, Sustainability, Facilities and Property Management, Central Stores, and the County Attorney will all take part in implementation.

Selection of Product Categories

In developing the Sustainable Procurement Strategy, the Sustainable Procurement Steering Committee decided to review the same five product categories that the State of Oregon targeted in its Sustainable Supplier Council Report – paper products, office furniture, vehicles and automotive equipment, cleaning and coating products, and building materials. As mentioned in the Oregon synopsis, the choice of these product areas was based on several factors, including expenditure, dollar volume, contract timing, product information, and availability of alternatives.

After product areas were established, the SPS directed its Product Task Forces to use a list of three criteria to narrow their focus to specific products within each area. In short, the Task Force members were asked to identify sustainable purchasing initiatives that they believed would be effective, timely, and easy to implement. By the end of 2003, the SPS plans to choose two more product areas to focus upon. In all likelihood, the choice of the new product areas will depend largely on which major City and County contracts are coming up for renewal.

Selection of Product Attributes

The Sustainable Procurement Steering Committee relies heavily on Task Force recommendations when it chooses sustainability attributes. These recommendations are based, in part, on product-specific information gathered from Green Seal, the EPA, and other public sector organizations.

Integrating EPP into Procurement Practices

While the State of Oregon and Multnomah County have interpreted Oregon Revised Statute 279 in a way that allows purchasers to engage in sustainable procurement, the City of Portland interprets the statute as requiring it to award contracts based on “lowest bid.” As a result, City purchasers are somewhat limited in their ability to integrate environmental and social considerations into the procurement process. Currently, the purchasers at Portland’s city bureaus cannot insert specifications other than “lowest bid” into contract documents without first getting approval from the City Council, which acts as the Local Contract Review Board. To do this, purchasers must demonstrate that the added specifications will produce cost savings and will not preclude any vendors from competing.

Tracking the Outcomes of EPP

Portland’s Bureau of Purchases is currently unable to track the outcomes of the City’s sustainable purchasing activities, largely due to the City’s decentralized purchasing structure. However, individual agencies can use the Bureau of Environmental Services’ *Sustainability Project Environmental Report Card* (http://www.cleanrivers-pdx.org/pdf/reportcard_2001.pdf) to record broad trends in their own energy costs, paper use, water consumption, chemical consumption, and utilization of environmental contract specifications.

EPP Outreach and Education

Several City of Portland agencies and organizations promote sustainable purchasing. The Bureau of Purchases holds EPP seminars for bureau representatives and promotes sustainable products in its newsletter. The Office of Sustainable Development, which has published an online *Green Office Guide* (http://www.sustainableportland.org/Grn_Off_Guide.pdf), maintains web pages on energy, solid waste and recycling, green building, and sustainable technologies and practices. Finally, the Green Team – a group of City employees working to implement the Sustainable City Principles – educates City purchasers about environmentally preferable office products through workshops and Green Fair events.

Web Links

City of Portland Office of Management and Finance: Publications
www.portlandonline.com/omf/index.cfm?c=27360&

City of Portland: Office of Sustainable Development
www.sustainableportland.org

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Santa Monica, California

Background

On September 20, 1994, Santa Monica adopted the Sustainable City Program (<http://pen.ci.santa-monica.ca.us/environment/policy/adopted2.pdf>). This program set specific policy goals and targets in four areas: resource conservation, transportation, pollution prevention and public health protection, and community and economic development. Included in the program was the Toxics Use Reduction (TUR) Program, which governs the City's purchasing of chemical-containing products. For the next seven years, the Citizens Taskforce on the Environment – an advisory group that helped develop the Sustainable City Program – monitored the progress of the city towards its sustainability goals.

In February 2003, the Santa Monica City Council adopted an updated version of the Sustainable City Program called the Sustainable City Plan (<http://www.ci.santa-monica.ca.us/environment/policy/SCP2003.pdf>). This plan sets very specific goals, indicators, and targets in the four areas covered by the original program, as well as in four new areas: open space and land use, housing, community education and civic participation, and human dignity. One of the goals added to the resource conservation area states that Santa Monica “should take a leadership role in encouraging sustainable procurement, extended producer responsibility, and should explore innovative strategies to become a zero waste city.”

Selection of Product Categories

Santa Monica's early choice of product categories was largely reactive and “opportunity-driven.” Today, the City is developing a proactive sustainable purchasing strategy based on the policies contained in the Sustainable City Plan. As part of this emerging strategy, the Environmental Programs Division (EPD), which works closely with the Purchasing Section and end-users in various City departments, continually seeks and evaluates new technologies, services, and products that could help Santa Monica achieve its numerous sustainability goals.

Selection of Product Attributes

The City of Santa Monica chooses sustainability attributes on a case-by-case basis. When researching attributes, the EPD gathers a great deal of information by networking with environmental and sustainable purchasing colleagues. The EPD also collects information from sources such as TOXNET (<http://toxnet.nlm.nih.gov/>), Green Seal, European Union documents,

EPPNet, and the Organisation for Economic Cooperation and Development (<http://www.oecd.org/home/>). Because of the city's TUR Program, environmental attributes such as low toxicity, absence of persistent bioaccumulative toxins, and low volatile organic compound (VOC) content are typically given priority in environmentally preferable purchasing efforts. However, recycled content, durability, reduced packaging, and recyclability are also emphasized. As the Sustainable City Plan becomes more widely implemented, the EPD will explore the use of social product attributes – including corporate social responsiveness – in Santa Monica's purchasing decisions.

Integrating EPP into Procurement Practices

Santa Monica's purchasing structure is fairly decentralized. As a result, the integration of social and environmental considerations into the City's purchasing procedures depends largely on the actions of numerous City employees. Individuals in the city's departments are allowed to make small purchases (under \$5,000) with quick purchase orders. For purchases over \$5,000, they must send a purchase request to the Purchasing Section, which in turn makes the purchases after coordinating with the EPD to identify environmentally preferable purchasing opportunities, including those related to toxics use reduction and recycled content products. When purchases reach \$25,000, the City Council must review and approve the associated bid. In any of these cases, Santa Monica's City charter requires purchasers to choose "the lowest and most responsible bid." To determine whether a bid is the lowest and most responsible, purchasers may use, in addition to price, criteria such as "the quality of the material or services offered" and "the character, integrity, reputation, judgment, training, experience, and efficiency of the bidder." This gives City purchasers wide latitude to engage in sustainable purchasing.

Tracking the Outcomes of EPP

Santa Monica cannot currently track product attributes or sustainable product purchases, largely due to the City's decentralized purchasing structure. According to a Santa Monica representative, the City is also having difficulty quantifying the social and environmental impacts of products, because quantitative impact analyses and models are available for only a few product or service areas. For example, a number of models can be used to quantify and compare the environmental impacts associated with various forms of energy production (i.e., quantities of greenhouse gases emitted per kilowatt-hour of energy generated), but such models may not exist – or may not be readily available – for the production of goods such as office furniture.

EPP Outreach and Education

The Environmental Programs Division engages in a number of purchasing-related outreach and education efforts. The EPD has fostered a healthy working relationship with the Purchasing Section and is gradually increasing buyers' awareness of sustainability issues. Through the use of pilot programs and hands-on demonstrations, the EPD educates end-users and reduces their skepticism towards sustainable products. Finally, the EPD keeps the vendor community informed by conducting face-to-face meetings, during which Division staff answer vendor questions and explain Santa Monica's sustainable purchasing goals.

Web Links

City of Santa Monica: Sustainable Purchasing
www.ci.santa-monica.ca.us/environment/policy/purchasing/

EPA Case Study on the City of Santa Monica's Environmental Purchasing
www.epa.gov/oppt/epp/pubs/santa.pdf

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Seattle, Washington

Background

In 1998, the City of Seattle established the Copernicus Program (<http://www.cityofseattle.net/purchasing/purchasingservices/cop-exec-sum.htm>), a citywide effort to re-engineer the City's purchasing system. The first phase of the program, known as Charter 1, focused on the design of a procurement system that could achieve cost savings while incorporating environmental and social equity goals. The second phase, Charter 2, began a year later, when emphasis shifted to program implementation. Today, the Copernicus Program is a bottom-up, top-down decision making structure. At the base of this structure are eighteen cross-functional Commodity Teams. These teams – comprised of a cross section of department purchasers and end-users, buyers, and sustainability experts – are responsible for developing, recommending, and implementing sustainable purchasing strategies. They conduct product-specific research, communicate with city departments and vendors, assess City contracts, and use annual benefit analyses to evaluate the results of their work.

In the middle of the Copernicus hierarchy are the Department Coordinators. They help identify potential Commodity Team members, and keep their departments, as well as higher-ups, informed of team activities. At the very top of the Copernicus structure are the Program Directors and the Mayor. The Directors, who come from several city departments (and the City Council), provide advice on controversial issues and guide the program. If a particular recommendation requires all city departments to agree on a product standard, or requires changes in City policy, the Directors convene to decide whether or not the recommendation should be implemented. Recommendations that are approved by the Directors are sent to the Mayor, who then makes a final decision.

In July 2002, Seattle became the first U.S. city to adopt a resolution addressing the procurement of products containing persistent bioaccumulative toxins (PBTs). Resolution 30487 (<http://clerk.ci.seattle.wa.us/~scripts/nph->

[brs.exe?s1=&s2=&s3=30487&s4=&Sect4=AND&l=20&Sect1=IMAGE&Sect2=THESON&Sect3=PLURON&Sect5=RESN1&Sect6=HITOFF&d=RESN&p=1&u=/~public/resn1.htm&r=1&f](http://www.ci.seattle.wa.us/~public/resn1.htm)
[=G](http://www.ci.seattle.wa.us/~public/resn1.htm)) directs the City to develop purchasing criteria and an implementation plan – with reduction targets – for products that contain PBTs or result in the production of PBTs during manufacture or disposal. Moreover, it requires implementation actions to be prioritized based on reduction opportunity potential, technical feasibility, economic feasibility, and protection of human health and the environment. In addition, the resolution establishes something akin to a price preference for alternatives to PBT-containing/releasing products by stating, “As a general rule, the use of an alternative product should be considered economically feasible if its cost, including cost of application, is within 110% of the full costs of the product of concern.” Since the passage of Resolution 30487, the City of Seattle has completed a general inventory of products that contain or result in the production of PBTs. In February 2003, the Office of Sustainability and Environment (OSE) published the *PBT Reduction Strategy: Progress Report to City Council* (<http://www.ci.seattle.wa.us/environment/Documents/PBTStrategy3-07-03.pdf>). This report includes the product inventory compiled by the City, as well as OSE evaluations of alternative products and recommendations.

Selection of Product Categories

During the first year of the Copernicus Program, the City of Seattle hired analysts to evaluate its procurement data. The analysts determined that 80% of citywide spending on purchases occurs within the following product areas:

- Building materials
- Communications equipment
- Furniture
- Janitorial supplies
- Landscaping
- Office equipment
- Building maintenance services
- Office supplies
- Staff augmentation (technology)
- Desktop computer technology
- Printing
- Roadways
- Security systems
- Enterprise software technology
- Vehicles
- Utility grade electrical equipment

As a result of the analysts’ work, the City formed sixteen Commodity Teams, each of which was assigned to one particular product area. A seventeenth team (the Travel Commodity Team) was formed in 1999, and an eighteenth team (Hazardous Materials) was added in 2000. Every November, the Commodity Teams establish sustainable purchasing goals for the following year. In developing these goals, the teams must decide which specific products they will focus upon.

To do this, the teams give priority to products/contracts that have the potential to realize the most sustainable benefits. They consider factors such as dollar volume, transaction frequency, date of contract expiration, process efficiencies, social equity, and environmental and technological impacts in their selections.

Selection of Product Attributes

In Seattle, sustainability attributes may be chosen by a wide variety of stakeholders, including policy makers and the Office of Sustainability and the Environment. However, Copernicus Program Commodity Teams are responsible for researching and assigning weights to those sustainability attributes. Selected attributes vary within and among product areas, but some of the most commonly emphasized environmental attributes include recycled content, reduced material use, low toxicity, reduced packaging, recyclability, low VOC content, and absence of PBTs. Product take-back is required for carpet, and may soon be required for office equipment and furniture.

Because Seattle is making the transition from EPP to sustainable purchasing, the Commodity Teams are also placing more emphasis on social equity attributes. One such attribute, “equal benefits,” is now mandated under Ordinance Number 119748 (<http://www.cityofseattle.net/contract/equalbenefits/eb-ordinance.htm>). This ordinance, which was passed in 1999, requires City vendors to extend equal benefits to employees with spouses and employees with domestic partners. In addition, the teams attempt to utilize women and minority-owned businesses.

In the future, Seattle’s Commodity Teams will use sustainable purchasing “scorecards” to evaluate products. These scorecards, which had been introduced to seven teams as of October 2003, will assign weights to multiple attributes in three primary categories: (1) direct and indirect cost, (2) environmental and technical aspects, and (3) social equity. In effect, the scorecards will allow the program’s Commodity Teams to assess the overall sustainability of a product based on its life cycle costs, life cycle environmental impacts, and life cycle social equity benefits.

Integrating EPP into Procurement Practices

Under the Copernicus Program, the Commodity Teams have the authority to identify and implement new procurement strategies for their assigned commodities (However, as mentioned previously, issues that are controversial are forwarded to the Copernicus Directors and the Mayor for final decision-making.). The teams accomplish their tasks by leveraging buying power and inserting environmental specifications into blanket contracts, as well as by selecting contract processes that support social equity goals. Blanket contracts, which are issued by the Purchasing Services Division, are used to make 80% of the City’s purchases. These contracts enable individual departments to purchase goods and services of high dollar value and high transaction frequency.

While most of Seattle’s purchases are centrally managed by the Purchasing Services Division and the commodity teams, 13% of the City’s purchases are made independently by department

purchasers using direct vouchers, commercial cards, or department purchase orders. Direct vouchers and commercial cards allow individual city departments to purchase goods and services not covered by Purchasing Services contracts (i.e., items of low dollar value and low transaction frequency). Department purchase orders, which comprise 2% of City procurement, allow departments to conduct informal solicitation processes for goods costing less than \$37,000. When City purchasing agents use any of these “decentralized” procurement mechanisms, they can decide whether or not they wish to add Commodity Team specifications.

Seattle’s Purchasing Services Division is involved in a number of cooperative purchasing efforts. These efforts are being used to promote sustainable purchasing while leveraging the City’s buying power to reduce costs. Purchasing Services is currently working with King County on a number of contracts, including one for cell phones. It is also using cooperative purchasing contracts developed by the U.S. Communities Government Purchasing Alliance (<http://www.uscommunities.org/>). In the future, the City of Seattle hopes to expand its cooperative purchasing activities, at both the regional and national levels.

Tracking the Outcomes of EPP

The Purchasing Services Division evaluates the success of the Copernicus Program by tracking a number of factors. Depending on the procurement mechanism and product, the environmental factors may include waste disposal costs, material costs, energy costs, recycling rates, consumption of chemicals, liability and insurance claims, health and safety, and workplace accidents and injuries. As part of its tracking efforts, the Purchasing Division compiles annual Copernicus Benefits reports. These reports highlight the qualitative outcomes and the direct and indirect cost savings produced within each product area.

EPP Outreach and Education

Outreach and education are integral components of the Copernicus Program. When the program was implemented in 1999, the City of Seattle hired staff to oversee internal group management, change management, and communication. The staff, in turn, provided standardized training to all Commodity Team members, offered a Procurement 101 class to City employees, and held trade fairs and symposiums to help familiarize vendors with the new program. Today, the Copernicus Program has well-developed lines of communication, with Commodity Teams, city departments, vendors, and end-users regularly exchanging information and ideas.

Web Links

City of Seattle Purchasing Services Division: The Copernicus Program
<http://www.cityofseattle.net/purchasing/purchasingservices/copernicusproject.htm>

City of Seattle Office of Sustainability and Environment: Sustainable Purchasing
<http://www.ci.seattle.wa.us/environment/purchasing.htm>

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Starbucks

In 1971, Starbucks opened its first store in Seattle's Pike Place Market. Today, the company has over 6,700 stores and 65,000 employees worldwide, and serves more than twenty million customers each week. Over the years, as Starbucks has grown, so too has the company's sense of responsibility to the environment and to the communities in which it operates. In 1992, Starbucks demonstrated this sense of responsibility by adopting an environmental mission statement. In September 2000, the company formed the Environmental Footprint Team, a cross-functional group of employees who – in addition to their functional roles – identify specific environmental focus areas, develop performance metrics, and assess Starbucks' annual environmental performance.

Using The Natural Step framework, Starbucks' Environmental Footprint Team identified sourcing, transportation, and store design and operation as the key areas the company should focus upon. The sourcing area was then divided into first- and second-tier priorities based on a number of criteria, including (but not limited to) environmental impact, degree of leverage within the supply chain, and dollars spent. In the first tier are coffee, tea, and paper fiber. Starbucks' procurement teams – with occasional help from NGOs – have researched these product categories and, as a result, initiated a number of sustainability efforts. Currently, the company is working to establish goals for the three first-tier categories using clear, specific performance metrics. It is also selecting items, sustainability strategies, and performance metrics for the second tier of the sourcing area.

Starbucks believes that its success hinges on the sustainability of coffee production. In 2000, the company formalized Commitment to Origins, a marketing and purchasing strategy dedicated to improving the lives of coffee farmers and promoting environmental conservation. As part of this strategy, Starbucks began selling three certified sustainable coffees: Certified Organic, Shade Grown Mexico, and Fair Trade Certified. In 2002, Commitment to Origins gained momentum when the company launched the two-year pilot phase of its Preferred Supplier Program. The program, designed to “support and encourage the sustainable production of high-quality coffee,” uses Starbucks' newly developed Coffee Sourcing Guidelines as criteria. These guidelines are based on the Conservation Principles for Coffee Production, which were developed jointly by Consumers Choice Council, Conservation International, the Rainforest Alliance, and the Smithsonian Migratory Bird Center.

By participating in the Preferred Supplier Program, coffee suppliers can earn rewards for improving the sustainability of their practices. The Coffee Sourcing Guidelines, which are based on a flexible point system, establish prerequisites for quality and independent verification and

divide 100 points among three sustainability criteria: environmental impacts, social conditions, and economic transparency. Starbucks pays farmers a premium for their coffee – up to ten cents per pound – based on the number of points they attain, and grants preferred supplier status to those who achieve 100 points. By mid-2003, over 100 coffee suppliers had applied to the Preferred Supplier Program. This year, Starbucks plans to use feedback from participating farmers – as well as from inspectors and external organizations – to improve the program and bring it from pilot phase to final form.

In the future, farmers who participate in the Preferred Supplier Program will be allowed to choose third-party organizations to verify their achievement of sustainability criteria. This means that coffee suppliers will be able to rely on local resources and capacity for verification. To ensure legitimate verification of participating farms, Starbucks will employ a third-party certification organization to serve as a “certifier of certifiers.” Discussions in this area are currently underway.

In addition to and in concert with its Preferred Supplier Program, Starbucks has shifted the way it purchases coffee. In 2002, Starbucks purchased 74% of its coffee at negotiated, outright prices, compared to only 12% for the year before. The company also increased the amount of coffee it purchased through direct relationships with farmers, as well as through long-term contracts. The company believes that purchasing coffee in these ways will contribute to the economic and environmental sustainability of small to mid-size coffee farms and cooperatives, thereby helping to ensure its long-term supply of high quality coffee.

While coffee sourcing is Starbucks’ primary focus, the company has also made paper sourcing a high priority. In 2001, after reviewing potential metrics, the Environmental Footprint Team chose “unbleached” (no additional bleach used during the manufacturing process) and post-consumer recycled content as performance measures. In 2002, close to 50% of the paper fiber purchased by Starbucks was unbleached, and about 28% was post-consumer recycled fiber. Recently, the company raised its minimum standard for post-consumer recycled content in paper goods from 20% to 30%; however, applicability of this minimum standard necessarily varies by product. For example, most napkins are made with a minimum of 30% post-consumer recycled content, but cups do not contain any post-consumer recycled content. The primary reason for this is that FDA regulations do not explicitly allow the use of post-consumer recycled materials in containers that directly contact food or beverages.

Starbucks has found that the application of its purchasing goals and standards are often impacted by the regulations of other countries. For example, in Germany and Japan, local regulations prohibiting post-consumer recycled content in food contact items (e.g., napkins) conflict with Starbucks’ goal for maximizing post-consumer recycled content in paper products. As a result, Starbucks has reassessed the company’s paper standard in these markets by focusing instead on the minimization of virgin content. In Japan, the slightly reworked standard has led the company to use innovative, environmentally friendly napkins containing 30% bamboo fiber.

Starbucks fosters company-wide support for its sustainability goals and standards. Senior management is kept informed of sustainability initiatives through targeted presentations and communications, and the Environmental Footprint Team provides the company with annual

updates. Many of the company's internal educational efforts are undertaken by the Corporate Social Responsibility (CSR) Department, which works closely with the company's procurement teams. In one such effort, CSR coordinates topical training sessions for purchasers. For example, the Certified Forest Products Council – now Metafore – recently provided training on sustainable wood issues. In addition, as part of their standard training, all new purchasers receive training on environmental topics such as environmental regulations and requirements, toxicity, product life cycle considerations, packaging, VOCs, and environmental claims and labeling (FTC Green Guides). This training is geared towards teaching buyers how to think about environmental purchasing, rather than teaching them exactly what to do. As an example of how this training has yielded positive results, a purchaser approached retail operations and asked if the company could start using thinner trash bags. Retail operations agreed to the switch, and not only has it saved Starbucks \$500,000 annually, it has also reduced the company's annual use of plastic by 750,000 pounds – without impacting performance

Starbucks' CSR Department also works closely with the company's suppliers. For instance, the Starbucks Supplier Handbook – which includes Starbucks' Environmental Mission Statement and Environmental Purchasing Policy – encourages suppliers to provide energy-efficient products and eliminate excess packaging. By the end of this year, Starbucks plans to implement a newly developed Supplier Code of Conduct. This code will contain provisions for supplier selection, corrective action plans, and monitoring/auditing by internal and/or independent organizations.

While Starbucks receives more media attention than the average coffee company, the fact is that the company purchases only about 1.5% of the world's coffee beans. Therefore, although Starbucks is taking major steps to enhance the sustainability of the communities in which it operates, it cannot, by itself, significantly impact the global coffee market. Nevertheless, the company is optimistic. Starbucks feels that its latest efforts will garner the support of sustainability-minded coffee companies, and that eventually it will be able to create “a network of industry leaders committed to improving the global coffee community.”

Web Links

Starbucks: Corporate Social Responsibility
www.starbucks.com/aboutus/csr.asp

Starbucks: CSR Annual Report, FY 2002
www.starbucks.com/aboutus/CSR_FY02_AR.pdf

Specialty Coffee Association of the Americas
www.scaa.org

Swedish Medical Center (Seattle, WA)

Background

Swedish Medical Center is the largest nonprofit medical facility in the Pacific Northwest. When Swedish expanded in 2000, the hospital's chief operating officers decided that the Center needed to deal more effectively with its supply chain, especially in terms of waste. Ron Dalberg – who had established unique purchasing programs at other institutions – was hired and charged with directing the purchasing activities of the Center. In 2001, he developed a Supply Chain Management system that now allows Swedish to engage in EPP while saving significant sums of money.

Selection of Product Categories

Swedish Medical Center's Supply Chain Management Division uses expenditures and opportunities for cost savings to determine which product categories will be included Center's purchasing strategy. Recently, the division calculated how much money Swedish was spending with each of its 7000 vendors. It found that only twenty-three vendors were receiving 70% of the Center's purchasing funds. As a result, the products sold by these vendors were chosen for initial focus, with the most costly category – implants – being given primary importance.

Selection of Product Attributes

Swedish Medical Center's VATs emphasize recyclability and reusability – attributes that allow the hospital to lower its waste disposal costs. Certain products, such as IV bags, are no longer disposed of. Instead, they are placed in special bins, shipped back to their suppliers, reprocessed, and then sold back to Swedish at one third the cost of a "virgin" product. Swedish also has a program to recycle mercury, and is searching for new ways to deal with the influx of disposable products such as gloves and masks. Because many people have sensitivities to artificial fragrances, the Center is also working to eliminate all scented products from its inventory.

Integrating EPP into Procurement Practices

At the heart of Swedish Medical Center's Supply Chain Management system are five Value Analysis Teams (VATs) – general surgery, medical imaging, cardiology, medical/surgical, and support services. Currently, a vendor that approaches Swedish with a product must first fill out a Product Evaluation Worksheet. In addition to queries about per item cost and estimated annual usage, this worksheet includes the question, "Can this product be reprocessed?" Vendors that answer "no" to this question must describe any special considerations that the hospital would have to take when disposing of their products. Vendors must also provide information regarding product packaging. Once a vendor completes a Product Evaluation Worksheet, the information on it is entered into the Supply Chain Management Division's "Opportunity Database." The appropriate VAT Chairperson then determines whether it should be introduced to the Team. Each month, the Center's VATs sit down with Supply Chain Management representatives and decide which products will be reviewed. In the end, comprehensive cost-benefit analyses are used to compare potential products to products currently in use. If a new product is selected for

purchase, the Contracts Manager is responsible for final negotiations and contract implementation.

Measuring Success

Swedish Medical Center primarily uses spending on supplies to evaluate the success of its purchasing system. A few years ago, supply expenses accounted for 23% of the Center's annual net revenues. Today, with the Supply Chain Management system in place, that amount has been reduced to 17.2% – a difference of \$16 million. Swedish also tracks metrics such as waste reduction and increased productivity to gauge the progress of its purchasing strategy.

EPP Outreach and Education

Some EPP training and outreach is provided by the Nursing Education department and the Planning and Development division. In addition, all physicians are given an orientation booklet on Supply Chain Management Services. This booklet explains the work of the VATs and includes a Clinical Justification Form that all physicians must use to request the purchase of a new product.

Web Link

Swedish Medical Center: Home Page
<http://www.swedishmedical.org/home.html>

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Vermont

Background

On Earth Day, 1994, Governor Howard Dean launched Vermont's Clean State Program with *Executive Order 06-94: Establishing the Clean State Council* (<http://www.anr.state.vt.us/dec/wastediv/csc/homepage.htm#Executive%20Order>). This order directs all state agencies to manage wastes by preferentially utilizing strategies that focus on pollution prevention, source reduction, and recycling. To support the implementation of Executive Order 06-94, Governor Dean established the Vermont Clean State Council. This council, which is comprised of state agency representatives and coordinated by the Department of Environmental Conservation, was charged with developing a Materials Management Plan (MMP) (<http://www.anr.state.vt.us/dec/clnstate.htm>).

In mid-1995, the Vermont Clean State Council completed the Materials Management Plan. Its intent is to “institutionalize in state government the purchase, use, and reuse of products that promote the environmental practices of resource conservation and pollution prevention.” The MMP, in part, requires state agencies to consider environmental factors when purchasing materials or undertaking construction projects, and sets procurement goals for certain products. These goals form the foundation of Vermont’s EPP strategy – a strategy that gives equal weight to solid waste reduction, energy efficiency, and pollution prevention.

Selection of Product Categories

The State of Vermont’s choice of product categories is based, to a great extent, on the provisions of Executive Order 06-94. Product categories specifically mentioned in the executive order include paper, cleaning supplies, and maintenance supplies (including paints and pesticides). While these products are a major focus of Vermont’s EPP efforts, the Materials Management Plan allows the application of EPP to other categories. In particular, Goal 3 of the MMP encourages the procurement of (1) products that are source reduced, reusable, or have the highest recycled material content feasible, (2) products using reduced or recycled packaging materials, and (3) goods and services that maximize pollution prevention, resource conservation, toxics use reduction, and energy conservation.

Selection of Product Attributes

Vermont’s selection of environmental attributes is largely driven by the goals and directives of the Materials Management Plan. In 1996, in accordance with the MMP, Governor Dean directed state agencies to use processed chlorine-free paper for all copier and printer application needs whenever feasible. The State Agency of Transportation uses re-refined motor oil for all its vehicles, and all cleaning products are purchased through an Environmentally Preferable Cleaning Products contract. Vermont has recently implemented product take-back requirements for fluorescent light tubes, and is now considering leasing agreements for computers.

Integrating EPP into Procurement Practices

Because Vermont has a decentralized purchasing structure, the Office of Purchasing has limited authority to integrate environmental considerations into the State’s purchasing activities. In cases where an agency’s requisition forms are missing mandatory environmental specifications, State purchasing agents will correct the documents and then inform the buyer that changes have been made. Non-mandatory environmental specifications are generally developed and applied cooperatively by the Office of Purchasing and other stakeholders.

Tracking the Outcomes of EPP

Under Executive Order 06-94, Vermont’s Office of Purchasing must prepare *Annual Recycling Reports* (<http://www.anr.state.vt.us/dec/wastediv/csc/pubs/bgs2002.pdf>). These reports include

recycling data by product category, recycling revenue, and money saved through landfill avoidance.

EPP Outreach and Education

The Office of Purchasing does not directly engage in EPP outreach or education. The office has, however, fostered a good working relationship with the Vermont Agency of Natural Resources (ANR). The ANR currently maintains a Vermont EPP web page, on which it provides a link to a list of State contracts for environmentally preferable products. In addition, the Department of Environmental Conservation (DEC), a department within ANR, works to inform state agencies about the environmental impacts of products. The DEC, which believes strongly in conserving paper, uses electronic media such as listservs to promote EPP. It also provides state agencies with EPP education and technical assistance, through its Environmental Assistance Division.

Web Links

Vermont: Environmental Procurement
www.anr.state.vt.us/dec/wastediv/csc/Envpurch.htm

State of Vermont Department of Environmental Conservation
www.anr.state.vt.us/dec/dec.htm

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Washington

Background

In September 2002, Governor Gary Locke signed *Executive Order 02-03: Sustainable Practices by State Agencies* (http://www.governor.wa.gov/eo/eo_02-03.htm). This executive order directs each state agency to establish sustainability objectives and prepare a biennial Sustainability Plan to amend its practices regarding resource consumption, vehicle use, purchase of goods and

services, and facility construction, operation, and maintenance. The order also specifies long-term goals for agency Sustainability Plans, including the expansion of markets for environmentally preferable products and services and a shift to nontoxic, recycled, and remanufactured materials in purchasing and construction.

Selection of Products

Washington's Department of General Administration (GA), which contracts on behalf of state agencies, tends to select environmentally preferable products when State contracts come up for renewal. The GA's choice of products is also partially influenced by the interests of the Washington State Department of Ecology staff. Below are a few examples of environmentally preferable products that are currently available on State contracts.

- Copying Paper
- Lighting
- Office Furniture
- Boxes and Shipping Tubes
- Paint
- Cleaning Supplies
- Paper Towels
- Vehicles
- Plastic Trash Bags

Selection of Attributes

When the Office of State Procurement (OSP) first attempted to engage in EPP in the late 1990's, it discovered that it needed assistance with the more technical aspects of environmental purchasing – particularly product attributes. In 1999, the Washington State Department of Ecology began working with OSP on an EPP project. Over time, OSP and Ecology developed a number of product-specific environmental criteria that could be reasonably applied in the marketplace (i.e., could be met by at least two vendors). In July 2001, Ecology detailed its collaborative efforts with OSP in a publication entitled *Environmentally Preferable Purchasing: Project Report* (<http://www.ecy.wa.gov/pubs/0104019.pdf>). Today, joint EPP activities continue on an informal basis, with Ecology providing scientific information and OSP providing procurement expertise.

Integrating EPP into Procurement Practices

The Department of General Administration's 2003-2005 Sustainability Plan (<http://www.ga.wa.gov/Sustainability/Plan-Draft.pdf>) requires OSP unit managers to work with contract officers to add at least five new environmentally preferable products to every Washington State contract by June 2005. This goal was met far ahead of schedule, in spring 2003. Consequently, state agencies and other entities that use State contracts to purchase goods and services can now, in many cases, choose between traditional and environmentally preferable products.

While the Office of State Procurement is the primary purchasing entity for the State of Washington, approximately 80% of State purchases are made directly by state agencies and political subdivisions. It is therefore up to individual purchasers throughout the state to integrate EPP into procurement decisions. Currently, the Department of General Administration is unable to provide detailed information regarding the EPP efforts of other agencies. However, the agencies' Sustainability Plans, which will all be completed by September 2003, will give GA an idea of what to expect in the future.

According to a Washington representative, organizations that wish to institutionalize EPP must make it a necessary part of purchasers' jobs. In keeping with this viewpoint, Washington's Department of General Administration gives Office of State Procurement unit managers a strong incentive to engage in EPP – namely, EPP efforts related to the Office of State Procurement's current Strategic Plan are included in their annual job performance evaluations. As a result, the representative said, OSP is continually adding more environmentally preferable products to State contracts, even though the EPP goal in the 2003-2005 Sustainability Plan has already been achieved.

In an attempt to further integrate EPP into Washington procurement practices, the Department of General Administration provides a number of environmentally preferable products through its Central Stores (<http://www.ga.wa.gov/centralstores/>). Central Stores helps aggregate the purchasing power of Washington State agencies and political subdivisions. It purchases about 2,000 commonly used products in volume, warehouses them, and then distributes them as customer demand dictates. By using this procurement strategy, Central Stores is able to offer purchasers a 20% or higher discount on goods such as office supplies, papers, forms, janitorial supplies, tools, and personal care items. Currently, Central Stores offers dozens of environmentally preferable products, all of which are listed in an online "Environmentally Friendly Products" catalog.

Tracking the Outcomes of EPP

Through Central Stores, the Department of General Administration tracks and compares agency spending on environmentally preferable products, including those containing recycled content. By doing this, GA can get a general feel for which state agencies are "lagging behind" in terms of EPP, and target those agencies for outreach efforts.

EPP Outreach and Education

Several public entities and non-profit organizations promote EPP in Washington State. The Department of General Administration uses its annual two-day trade show to educate State purchasers, end-users, and vendors about EPP. During this show, purchasers receive a copy of the *Purchasing Reference Guide for Environmentally Preferable Purchasing* (<http://www.ga.wa.gov/PCA/Forms/EPP-Manual.doc>) as part of a training class. This guide, which is based on Minnesota's EPP Guide, was developed in cooperation with Ecology. In 2002, GA encouraged all vendors at the trade show to display their environmentally preferable products on contract. It plans to do the same for 2003.

Central Stores promotes the latest environmentally preferable products on its home page, and occasionally sends out free samples of environmentally preferable products – such as processed chlorine-free paper – to state agencies. Central Stores also makes Material Safety Data Sheets available online in several languages, thanks to a joint effort by GA and state agency safety coordinators.

The Washington State Department of Ecology helps OSP investigate environmental product claims, and promotes environmentally preferable products on State contracts. In addition, for the past three years Ecology has participated in various product stewardship initiatives. It is currently involved in the National Electronics Product Stewardship Initiative (NEPSI) (<http://eerc.ra.utk.edu/clean/nepsi/>) process, and is pushing for the inclusion of product take-back requirements in the computer contract being developed by the Western States Contracting Alliance. In early 2003, Ecology used EPA grant money to host a small carpet stewardship forum. During this forum, various parties discussed whether the State should try to site a carpet reclamation facility in the Northwest. Ecology plans to hold a second forum sometime soon.

Finally, the Clean Washington Center – through a partnership with the Washington State Department of Ecology, the Pacific Northwest Economic Region, and the Pacific Northwest Pollution Prevention Resource Center – maintains an online EPP Product List (<http://www.pnwer.org/EPP/epp.asp>). This list allows purchasers to view existing information on a number of locally available environmentally preferable products, including various paints, cleaning products, and office supplies. In the future, Ecology may add to this effort by working with the state's Sustainability Coordinator to put EPP information on the Office of Financial Management's sustainability webpage.

Web Links

Washington State Department of General Administration: Sustainability
www.ga.wa.gov/Sustainability/

Washington State Department of General Administration: State Purchasing
www.ga.wa.gov/PCA/pcacust.htm

Washington State Department of General Administration: Central Stores
www.ga.wa.gov/centralstores/

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Appendix 2

Product Matrix

Product matrix begins on next page.

PAPER

Product Category	Organizations	Features	Additional Information
<p>PAPER</p> <p>- <i>Office paper</i></p>	<p>Boulder, CO</p> <p>Portland and Multnomah County, OR</p> <p>Vermont</p> <p>Oregon</p> <p>Washington</p> <p>Seattle, WA</p>	<p>A 2003 paper policy directs all City departments to use 100% post-consumer recycled content paper.</p> <p>Under the Sustainable Paper Use Policy, City and County agencies must purchase paper that meets or exceeds EPA recycled content guidelines. In addition, all paper purchased by the city must be process chlorine-free (PCF) or totally chlorine-free (TCF) by July 2006.</p> <p>In 1996, Vermont’s governor directed state agencies to use processed chlorine-free paper for all copier and printer application needs whenever feasible.</p> <p>Processed chlorine-free paper towels and bathroom tissue can be purchased on State contract.</p> <p>Unbleached paper towels containing 80% post-consumer recycled content can be purchased through Central Stores.</p> <p>Recycled content janitorial products are available on City contracts.</p>	<p>Sustainable Paper Use Policy Resolution: http://www.portlandonline.com/shared/cfm/image.cfm?id=15621</p> <p>Washington Central Stores: http://www.ga.wa.gov/centralstores/</p> <p>City of Seattle Contract Search: http://www2.cityofseattle.net/purchasing/vendorcontracts/default.asp</p> <p>Coffee, Tea, and Paper Sourcing: http://www.starbucks.com/aboutus/sourcing.asp</p>
<p>- <i>Other paper</i></p>	<p>Starbucks</p>	<p>In 2002, close to 50% of the paper fiber purchased by Starbucks was unbleached, and about 28% was post-consumer recycled fiber. Recently, the company raised its minimum standard for post-consumer recycled content in paper goods from 20% to 30%; however, applicability of this minimum standard necessarily varies by product.</p>	

CLEANING SUPPLIES

Product Category	Organizations	Features	Additional Information
CLEANING SUPPLIES - <i>General cleaners</i>	Massachusetts	<p>The Operational Services Division awarded contracts to eleven distributors representing seven different manufacturers of environmentally preferable cleaning products in April, 2003. The minimum environmental and health standards established for most of the products under this contract are based on the Green Seal Standard for Industrial and Institutional Cleaners (GS-37). In an effort coordinated by the Center for a New American Dream, the procurement was designed in consultation with various state and local governments across the country for the purpose of establishing a consensus-based set of minimum criteria that can be used by others in their bidding process.</p> <p>In May 2003, Phoenix began a pilot program to test environmentally preferable cleaning products for janitorial services contracts. The City's janitorial services contracts are now being converted to make this switch citywide.</p> <p>Under Boulder's Environmental Management System – now called City PACE (Partners for A Clean Environment) – the Office of Environmental Affairs is working with the city's janitorial workers to replace hazardous cleaning products with the lowest toxicity products on the market.</p> <p>The City's bid specifications for cleaning products prohibit carcinogens, aerosols, ozone-depleting chemicals, and persistent bioaccumulative toxic chemicals. They also set strict standards for VOCs, biodegradability, and toxicity.</p>	<p>Green Seal Standard for Industrial and Institutional Cleaners: http://www.greenseal.org/standards/industrialcleaners.htm</p> <p>Massachusetts Cleaning Products Contract Summary (OSD Update) and Request for Response (RFR): http://www.comm-pass.com/Comm-PASS/Scripts/xdoc_view.idc?doc_id=014080</p> <p>Environmentally Preferable Cleaning Products: http://www.state.ma.us/osd/enviro/products/cleaning.htm</p> <p>EPA Case Study on the City of Santa Monica's Environmental Purchasing: http://www.epa.gov/oppt/epp/eppt/santa.pdf</p>

Product Category	Organizations	Features	Additional Information
- <i>General cleaners</i>	Minnesota	<p>All products selected for the current State contract — 33 categories of cleaning products, including all-purpose cleaners, cleaners for toilet bowls, furniture and glass, deodorizers, disinfectants, soaps and floor cleaners— were screened and rated for cleaning performance and environmental characteristics. Vendors received higher points for avoiding product ingredients that are highly toxic, carcinogenic, flammable, or likely to cause skin irritation, respiratory problems, or allergic reactions. Points were also awarded for using plant-based ingredients and for avoiding phosphates and ozone-depleting substances.</p>	<p>Procuring Green Cleaners: http://www.moca.state.mn.us/lc/purchasing/cleaners-mn.cfm</p>
	Seattle, WA	<p>City departments utilize six contracts (added in early 2003) for environmentally friendly cleaning products in seven categories: general cleaning, tub and tile cleaner, glass cleaners, toilet bowl, deodorizers, combination cleaner-disinfectant, and disinfectants. All products were performance tested by City custodians. The Janitorial Commodity Team is currently working on a solicitation for floor care products and metal cleaners.</p>	<p>Environmental Work of the Commodity Teams: http://www.cityofseattle.net/purchasing/purchasing-services/pangreen.htm</p>
	Vermont	<p>State agencies purchase all cleaning products through an Environmentally Preferable Cleaning Products contract.</p>	
	Aberdeen Proving Ground	<p>APG worked with Green Seal to develop an environmentally preferable industrial and institutional cleaner standard.</p>	
- <i>Graffiti remover</i>	Portland, OR	<p>The Office of Sustainable Development (OSD) worked with the Mayor's Graffiti Task Force and the Center for a New American Dream (CNAD) to research and test safer and more environmentally preferable graffiti remover products.</p>	<p>A Cleaner Way to Clean Up Graffiti: http://www.newdream.org/procure/Graffiti.pdf.</p>

PAINT

Product Category	Organizations	Features	Additional Information
PAINT	<p>Portland, OR</p> <p>Aberdeen Proving Ground</p> <p>Massachusetts</p> <p>Phoenix, AZ</p>	<p>The Sustainable Procurement Strategy directs bureaus and departments to include vendor recycling of unused paint in bid specifications. In addition, Portland City Code 5.33.050.H requires reprocessed latex paint to be used for all interior and exterior architectural applications where appropriate. In cases where the use of reprocessed latex paint is not appropriate, the code requires the use of low- or zero-VOC (volatile organic compound) paint.</p> <p>In 1999, the Pollution Prevention (P2) Program published a study entitled <u>Environmentally Preferable Paints Minimize Harm, Maximize Savings</u>. This study was an evaluation of the environmental performance of all 2,200 paints in the military installation's inventory. Based on the results of the study, APG developed the Environmentally Preferable Paint List, which now contains the names of more than 150 environmentally preferable paints.</p> <p>In 2001, the Department of Environmental Protection, in partnership with the Product Stewardship Institute, conducted a pilot take-back project with paint manufacturer Benjamin Moore to collect and recycle surplus Benjamin Moore brand paint. Approximately 256 gallons of paint were collected, 240 gallons of which were reprocessed back into paint. The five communities that participated in the project saved thousands of dollars by diverting the leftover paint to Benjamin Moore instead of transporting the paint to Ontario, Canada, for recycling.</p> <p>The City has purchased refillable paint "pods" for road striping. It has also bought can depressurizers to aid in the recycling of aerosol paint cans.</p>	<p>Sustainable Procurement Strategy – 1st Annual Review – 2003: http://www.portlandonline.com/shared/cfm/image.cfm?id=15613</p> <p>5.33.050 Purchasing Policies: http://www.portlandonline.com/auditor/index.cfm?&a=22184&c=28792</p> <p>Environmentally Preferable Paint List: http://www.apg.army.mil/ap2g/PDF/PaintList021106.pdf</p> <p>The Product Stewardship Institute: http://www.productstewardshipinstitute.org/Paint.htm</p> <p>Paint Initiatives: http://www.moea.state.mn.us/stewardship/paint-other.cfm</p>

PAINT (CONT.)

Product Category	Organizations	Features	Additional Information
PAINT	Minnesota Seattle, WA	The Minnesota Statewide Contract for recycled latex paint specifies two grades – reprocessed or reblended. These grades are defined by the number of tests the paint receives and the amount of recycled materials it contains. New paint contracts awarded in spring of 2003 eliminate heavy metals (lead, cadmium, mercury) and specify that paints must not contain formaldehyde, benzene, or vinyl chloride. In addition, the contract provides paint with reduced VOC content.	Recycled Latex Paint: http://www.moea.state.mn.us/ic/purchasing/latexpaint.cfm City of Seattle Contract Search: http://www2.cityofseattle.net/purchasing/vendorcontracts/default.asp

OFFICE EQUIPMENT/ELECTRONICS

Product Category	Organizations	Features	Additional Information
OFFICE EQUIPMENT/ ELECTRONICS	Boulder, CO Aberdeen Proving Ground	City departments are required to purchase electronic products with the lowest standby power usage on the market, as determined by the Federal Energy Management Program (FEMP). APG has implemented a policy stating that off-the-shelf products that use external standby power devices or contain an internal standby power function shall use no more than one watt in their standby power-consuming mode.	FEMP Standby Power Data Center: http://oahu.fbl.gov/

OFFICE EQUIPMENT/ELECTRONICS (CONT.)

Product Category	Organizations	Features	Additional Information
- Computers	California	<p>The nation's first comprehensive electronics recycling policy – the Electronic Waste Recycling Act of 2003 – was signed into law on September 25, 2003. Under this act, California retailers must collect electronic waste recycling fees on specific electronic products that use cathode ray tubes (CRTs), flat panel screens, or any video display device larger than four inches. The fees will be adjusted every two years to ensure that recycling costs are fully covered.</p>	<p>Governor's Press Release on the Electronic Waste Recycling Act of 2003 (SB 20): http://www.cawrecycles.org/Ewaste/SB%202020%20(Shef)/GOVERNOR%20DAVIS%20SIGNS%20SB%2020.htm</p>
	Massachusetts	<p>Massachusetts' Statewide Contract for PCs and peripherals requires vendors to offer Energy Star®-compliant equipment. In addition, the RFR for the contract allows vendors to earn extra points by meeting one or more "desirable" environmental specifications (see Appendix 5).</p>	<p>EPP – PCs & Peripherals Category: http://www.state.ma.us/osd/enviro/products/computer.htm</p>
	Seattle, WA	<p>Members of the Distributed Computing Commodity Team have entered into a contract with Gateway to standardize desktop computers. The contract's environmental requirements include the following:</p> <ul style="list-style-type: none"> • Elimination of media and advertising as well as a reduction in the number of manuals sent with each computer; • Delivery of CPUs in large metal crates that eliminate packaging; • Vendor pick-up and recycling of packaging; and • Take-back options for recycling after used computers are utilized by local schools. 	<p>Environmental Work of the Commodity Teams: http://www.cityofseattle.net/purchasing/purchasing_services/pangreen.htm</p> <p>City of Seattle Contract Search: http://www2.cityofseattle.net/purchasing/vendorcontracts/default.asp</p>

CARPET

Product Category	Organizations	Features	Additional Information
CARPET	<p>Minnesota</p> <p>Indiana</p> <p>Seattle, WA</p> <p>Massachusetts</p>	<p>In 2001, Minnesota's Office of Environmental Assistance joined representatives of the carpet industry, non-governmental organizations, and other government agencies to develop the first national product stewardship agreement in the United States. This voluntary initiative, called the Memorandum of Understanding for Carpet Stewardship (MOU), encourages carpet manufacturers to assume responsibility for their product throughout its life cycle, from point-of-sale to disposal.</p> <p>Indiana's specifications for carpeting projects require manufacturers to provide carpet with 25% total recycled content by weight. In addition, the specifications require them to recycle or capture the energy from all the old carpet they remove.</p> <p>In 2002 the Furniture Commodity Team entered into new contracts for carpet. The contracts require vendors to recycle used carpets and to provide carpets that are made from recycled materials when possible. In addition, the contracts request that vendors provide low-VOC products. Many of the new City Capital Projects striving for the LEED credit have purchased carpets that meet the VOC limits of the Carpet and Rug Institute's Green Label Program.</p> <p>Massachusetts' Statewide Contracts for carpet include a specification that requires carpet manufacturers to recycle all carpet removed prior to the installation of new carpet. The contracts also specify that new carpet must contain a minimum of 10% total recycled content.</p>	<p>Memorandum of Understanding for Carpet Stewardship http://www.moca.state.mn.us/carpet/MOU-020108.pdf</p> <p>Carpet America Recovery Effort (CARE) http://www.carpetrecovery.org/</p> <p>City of Seattle Contract Search: http://www2.cityofseattle.net/purchasing/vendorcontract/s/default.asp</p> <p>Massachusetts Carpet and Flooring Products Contract Summary and Request for Response (RFR): http://www.comm-pass.com/Comm-PASS/Scripts/xdoc_view.idc?doc_id=011846</p>

CARPET (CONT.)

Product Category	Organizations	Features	Additional Information
CARPET	North Carolina	<p>North Carolina has minimum recycled content requirements for carpet on State term contracts. Currently, vendors must have a minimum of 5% post-consumer materials, 15% recovered materials (including both pre- and post-consumer materials), and a minimum of 25% recycled content materials. These specifications are currently being updated to include higher percentages of recycled content.</p>	

LIGHTING

Product Category	Organizations	Features	Additional Information
LIGHTING	<p>Vermont</p> <p>King County, WA</p> <p>Aberdeen Proving Ground</p>	<p>The State has implemented product takeback requirements for fluorescent lamps.</p> <p>In 2000, the County established a contract for recycling waste lamps, including fluorescent tubes and high intensity discharge (HID) lamps.</p> <p>As part of its energy efficiency efforts, Aberdeen Proving Ground – an EPA Green Lights partner – is replacing standard PCB-containing fluorescent light ballasts with energy-efficient, PCB-free, electronic ballasts.</p>	<p>Fluorescent Tube Recycling: http://metrokc.gov/procure/green/bul60.htm</p>

OFFICE FURNISHINGS

Product Category	Organizations	Features	Additional Information
OFFICE FURNISHINGS	<p>Massachusetts</p> <p>California</p> <p>Seattle, WA</p> <p>Herman Miller, Inc.</p>	<p>Massachusetts has a Statewide Contract for remanufactured office panels. The vendors on this contract use a remanufacturing process in which non-toxic water-based paints are baked onto the panels. This process produces a product that looks and performs like a standard office panel at a fraction of the cost. The vendors also offer discounts to agencies and departments that trade in used panels.</p> <p>In 2000, an interagency task force finalized stringent environmental specifications for modular office furniture purchased under State contract. It sets new industry standards for indoor air quality, prescribes a high level of recycled content in components and packaging, bans CFCs and HCFCs used in foam production, and addresses energy-efficient task lighting designed for work stations. The environmental specifications also require manufacturers to carry out solid waste audits and prepare waste reduction plans at manufacturing facilities.</p> <p>In 1998 a cross-functional team developed strict standards for sustainable workstations. In 2002 standards were added for Chairs. For details see the website at right.</p> <p>Herman Miller's Design for Environment (DfE) Team utilizes the McDonough Braungart Design Chemistry (MBDC) protocol to evaluate the company's new office furniture designs. The MBDC "Cradle to Cradle" Design Protocol focuses on three key aspects of a product: material chemistry and safety of inputs, ease of disassembly, and recyclability.</p>	<p>EPP – Office Panels, Remanufactured: http://www.state.ma.us/osd/enviro/products/officepanels.htm</p> <p>Massachusetts Office Equipment, Supplies & Services Contract Summary and Request for Response (RFR): http://www.comm-pass.com/Comm-PASS/Scripts/xdoc_view IDC?doc_id=010668</p> <p>Final Environmental Specifications for Office Furniture Systems: http://www.ciwmmb.ca.gov/GreenBuilding/Specs/Furniture/DGSSpecs.pdf</p> <p>Facility Standards for Design, Construction and Operations: http://www.cityofseattle.net/facilitydevelopment/designstandards.htm</p> <p>McDonough Braungart Design Chemistry (MBDC) protocol: http://www.mbdc.com/c2c_mbdp.htm</p>

OTHER

Product Category	Organizations	Features	Additional Information
<p>OTHER</p> <p>- <i>Motor oil</i></p>	<p>King County, WA</p> <p>Indiana</p> <p>Vermont</p> <p>North Carolina</p>	<p>In the Fall of 1999, after a successful pilot project, King County's METRO Transit became one of the first major metropolitan transit authorities in the nation to adopt the use of re-refined motor oil for its entire fleet of over 1200 buses.</p> <p>State agencies are required to purchase re-refined oil in a closed loop system (Oil is purchased from and recycled by the same vendor.).</p> <p>The State Agency of Transportation uses re-refined motor oil in all of its vehicles.</p> <p>Re-refined motor oil is the only motor oil available in certain weight categories (e.g., 10W 40) on State term contracts.</p>	<p>Environmentally Preferable Lubricants: http://metrokc.gov/procure/green/oil.htm</p>
<p>- <i>Toner Cartridges</i></p>	<p>King County, WA</p> <p>Indiana</p> <p>Portland, OR</p>	<p>Remanufactured toner cartridges for laser printers are purchased under a 1991 contract developed in collaboration with local vendors. Cartridges supplied under this contract must meet original equipment manufacturer's (OEM) standards and provide full performance guarantees.</p> <p>State agencies are required to purchase remanufactured toner cartridges and recycle their used cartridges through an All State Agency Quantity Purchasing Agreement with the Hopewell Center, an organization which employs disabled individuals.</p> <p>Remanufactured toner cartridges for laser printers are purchased under a contract with a State-certified Qualified Rehabilitation Facility which employs disabled individuals. Cartridges supplied under this contract must meet original equipment manufacturer's (OEM) standards and provide full performance guarantees.</p>	<p>Remanufactured Laser Printer Toner Cartridges: http://metrokc.gov/procure/green/tonercart.htm</p>

Appendix 3

Oregon's List of Thirty-One Product Sustainability Indicators

Below is Oregon's list of thirty-one product sustainability indicators, along with guiding questions. **Note: Consider the attribute appropriate for the product or service to be purchased.**

- Sustainable products have lower life cycle cost instead of lowest first cost.
- Sustainable products are reused before disposal (surplus cross agency).
- Sustainable products strike a balance between environmental, economic and equity parts of sustainability without significantly harming one of the other parts.
- Sustainable products come from enterprises that have incorporated sustainability concepts into their organizations.
- Sustainable products and services come from enterprises that have better environmental performance.
- Sustainable products have more post-consumer recycled content than other products.
- Sustainable products have more reusability/refurbishability/reparability content (not down cycling).
- Sustainable products (such as adhesives and solvents) utilize water-based chemicals during manufacturing.
- Sustainable products emit or off-gas the less (TVOC, formaldehyde, total aldehydes, vehicle exhaust).
- Sustainable products are contain less, and are manufactured with less ozone depleting substances (CFC/HCFC).
- Sustainable products have longer warranties.
- Sustainable products are packaged in materials that are recyclable and reusable by the product user.
- Sustainable products generate the least hazardous waste by weight during manufacturing.

- Sustainable products contain the least hazardous materials (such as mercury).
- Sustainable products are those that have been refurbished over new provided the refurbished/remanufactured product meets the same product and sustainability specifications as a new sustainable product.
- Sustainable products and services lead to increased sustainability knowledge. Investing in state employees and contractors education on sustainable is beneficial.
- Sustainable products are sold by businesses that address social equity.
- Sustainable wood products are grown in a sustainable manner (maintaining biodiversity).
- Sustainable products are made from materials that are nontoxic or organic materials and are biodegradable.
- Sustainable products produce the least toxins during life cycle.
- Sustainable products are more durable.
- Sustainable products require the less maintenance. Maintain equipment properly and use as directed and safely.
- Sustainable activities and use of more sustainable products can be encouraged through personal economic incentive or disincentives.
- Sustainable products provide the right result and use less energy.
- Sustainable products are certified by creditable existing certification programs if certification is available.
- Sustainable products and service enable increased operational efficiency.
- Sustainable products reflect actual costs and place cost with users.
- Sustainable products provide the greatest recyclables.
- Sustainable products use less natural capital (irreplaceable natural resources) to produce.
- Sustainable products or services are manufactured and sold by manufactures and businesses using sustainable processes.

- Sustainable products and services purchased locally contribute to local economic stability.

By converting product attributes into guiding questions, a purchaser may use a series of questions as a guide to assist in the preparation of sustainable sourcing approaches. Asking and answering each question as appropriate for the product or category of products to be purchased should cause the product specification and evaluation process to consider and include appropriate sustainability attributes. Additional questions may be warranted. Some of the questions may not fit the particular product to be purchased.

Guiding Questions:

- 1) Is there an alternative product or system available that could be used or refurbished that will substitute for the purchase of this product that would be more aligned with sustainable sourcing values?
- 2) How does this product or can this product be made to conserve energy?
- 3) How does this product generate waste? Is there a product that can be used that will generate less waste?
- 4) How is this product packaged? Are there packaging alternatives that can be specified to reduce waste and reduce natural resources used to package the product?
- 5) Are these products already available within the state system that could avoid purchasing a new product?
- 6) What natural resources are consumed in the process of manufacturing the product? Are there products that extract fewer natural resources during their manufacture that should be considered?
- 7) What energy is consumed in the shipping of the product? Are there shipping alternatives that consume less energy?
- 8) Do these products release toxic material during their life cycle? If so what can be done to minimize the release of toxics? Are products available that do not release toxics into the environment?
- 9) What is the life cycle cost of the product? Would a total cost of the product to include operating costs, energy costs, training costs, durability and other costs that can be objectively quantified result in better value to the State and less cost to the State than first cost?

- 10) What has the supplier done to incorporate sustainable practices in their manufacturing and business operations? Are there purchasing choices we can make that will foster sustainability from suppliers?
- 11) Will the purchasing decision anticipated to come from this procurement have a positive impact on the community?

Appendix 4

Massachusetts' Environmental Specifications for PCs and Peripherals

Massachusetts' Statewide Contract¹⁴ for PCs and peripherals requires vendors to offer Energy Star®-compliant equipment. In addition, the Request for Response (RFR) for the contract allows vendors to earn extra points by meeting one or more of the following "desirable" environmental specifications:

- (1) Components are not manufactured or assembled using the following toxic/hazardous ingredients:
 - (a) CFC or HCFC compounds included on the A, B and C annex of the "Montreal Protocol on Substances that Deplete the Ozone Layer"
 - (b) chlorinated solvents
 - (c) cadmium in any part of the CRT, electronic components, batteries for backup or internal clocks (not to exceed 25 mg/kg total) photo semiconductors, or in packaging or packaging ink
 - (d) mercury in the background lighting system, batteries and other electronic components
 - (e) selenium, unless equipment can be returned to manufacturer
 - (f) flame retardant materials in any plastic components which contain any organically bound chlorine or bromide
- (2) Recycled content (preferably post-consumer content) is used in plastic components, CRT glass, and/or other components
- (3) Packaging has some or all of the following characteristics:
 - (a) made from recycled content which meets or exceeds all federal and state recycled content guidelines (currently 35% post-consumer for all corrugated cardboard)
 - (b) minimizes or eliminates the use of polystyrene or other difficult to recycle materials
 - (c) minimizes or eliminates the use of disposable containers such as cardboard boxes
 - (d) provides for a return program where packaging can be returned to a specific location for recycling
 - (e) manuals are printed on recycled content paper which meets or exceed federal and state guidelines for recycled content (currently 30% post-consumer content)
 - (f) contains materials which are easily recyclable in Massachusetts

¹⁴ Massachusetts will be revising the contract specifications for PCs and peripherals in fall 2003.

- (4) Computers are easily upgraded due to modular design, an expandable memory, or other feature
- (5) Computers are designed for reuse or recycling
- (6) Take-back provisions are offered, preferably at no cost to contract users
- (7) Equipment minimizes impacts on worker health and safety in the following ways:
 - (a) equipment is ergonomic in design, including visual legibility and image stability
 - (b) equipment reduces eye strain or other repetitive motion ailments
 - (c) monitors reduce exposure to magnetic and electric fields, and x-ray radiation
- (8) Computers have received certification from third-party certifying organizations such as TCO, Blue Angel, ISO 14,000 or others
- (9) Bidders demonstrate that they and/or manufacturers are actively pursuing additional ways of minimizing their environmental impacts at manufacturing, assembly, warehouse, distribution and/or other facilities, including, but not limited to:
 - (a) toxics use reduction and/or waste prevention efforts
 - (b) recycling and/or reuse (including the current recycling, reuse and/or remanufacture of computer equipment by or for Bidder)
 - (c) energy efficiency
 - (d) natural resource conservation

Appendix 5

Sample EPP Resolution

Below is the sample EPP Resolution published in the State of Minnesota's Environmentally Preferable Purchasing Guide. See www.swmcb.org/EPPG/App_B.asp.

SUBJECT

(Name of jurisdiction) Environmentally Preferable Purchasing Resolution

EFFECTIVE DATE: _____

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PURPOSE

The goal of this policy is to encourage and increase the use of environmentally preferable products and services in (jurisdiction). By including environmental

considerations in purchasing decisions, (jurisdiction) can promote practices that improve public and worker health, conserve natural resources, and reward environmentally conscious manufacturers, while remaining fiscally responsible.

DEFINITIONS

For the purpose of this resolution, the following definitions shall apply:

- "Available locally" means that one or more businesses within the county/city or immediate surrounding areas are able to provide goods and services in a timely manner, and in sufficient quantity and quality to meet a specific department/agency need.
- "Biodegradable" means the ability of a substance, material, or product ingredient to readily decompose by the action of microbes.

- "Chlorofluorocarbon, (CFC)" refers to the family of compounds of chlorine, fluorine, and carbon. CFC's contribute to the depletion of the stratospheric ozone layer, and have been used as an ingredient for refrigerants, solvents, and for blowing plastic-foam insulation and packaging. The Montreal Protocol on Substances that Deplete the Ozone Layer calls for complete elimination of CFC production.
- "Environmentally preferable products and services" as defined by Presidential Executive Order 13101, means products and services that have a lesser or reduced effect on human health and the environment when compared to competing products and services that serve the same purpose. This applies to raw material acquisition, as well as product manufacturing, distribution, use, maintenance, and disposal.
- "Green building practices" means the incorporation of environmental, health, and waste prevention criteria in building design, site-planning and preparation, materials acquisition, construction or remodeling, deconstruction, and waste disposal.
- "Integrated pest management" means the use of a combination of pest control methods including improved sanitation, mechanical, physical, biological, or chemical means.
- "Post-consumer recycled material" refers to material that has served its intended use and has been discarded for disposal or recovery, having completed its life as a consumer item, and is used as a raw material for new products.
- "Practicable" means satisfactory and within reason when considering price, performance, availability, compatibility with specified operation, and public safety.
- "Price-preference" means a percentage of increase in price that (jurisdiction) will pay to obtain a designated product or service.
- "Processed-chlorine free paper" refers to paper that is manufactured using a percentage of post-consumer recycled paper fiber (that may contain residues of chlorine) and is whitened without adding chlorine or chlorine derivatives.
- "Rainforest hardwood/tropical wood" means wood that originates from trees grown in a rainforest.
- "Recyclable" refers to a material or product that can be reprocessed, remanufactured, or reused.

BACKGROUND

Local and state governments, combined, purchase more than \$1 trillion of goods and services each year. Many of these products contribute to problems in the overall environment, including contamination of the air and water, and depletion of environmental resources. In some instances, products require special waste disposal and reporting procedures which can be cumbersome and expensive. Furthermore, local government employees using these products may be exposed to compounds that are potentially harmful to their health.

(Jurisdiction) has an opportunity to serve as a community model for environmental leadership by incorporating a plan of action that will conserve precious resources such as water, raw materials, and energy, reduce the use of hazardous substances, and potentially improve the environmental quality of the region. By incorporating environmental considerations in public purchasing, (jurisdiction) can reduce its burden on the local and global environment, remove unnecessary hazards from its operations, protect public health, reduce costs and liabilities, and help develop markets for environmentally responsible products.

GENERAL POLICIES

The Office of (Procurement, County/City Manager, and/or Environment, etc.) shall coordinate the establishment of a special interdepartmental Environmental Purchasing Task Force (hereinafter "the Task Force") including one representative from public administration (County/City Manager, Commissioner, Freeholder, City Council member, etc.), representatives from purchasing, parks and recreation, environmental services, construction/property management, vehicle/equipment maintenance, and other relevant departments/operations to (1) identify opportunities for environmental purchasing initiatives, (2) provide a forum for open discussion by affected personnel, and (3) educate and inform staff about the environmental purchasing program. The Task Force shall meet quarterly following the adoption of this policy.

The Task Force shall designate an Environmental Purchasing Coordinator(s) (hereinafter "the Coordinator") to provide oversight to the Task Force, discuss with individual departments opportunities to increase environmental purchasing where relevant, coordinate outreach/training for staff, report to jurisdiction leadership, and provide general support to maintain the environmental purchasing program.

By (date), the Task Force shall encourage a minimum of one department to perform a pilot or demonstration study of environmentally preferable purchasing. The following departments and operations are potential sites for environmental purchasing demonstrations: vehicle/equipment maintenance, construction/property management, parks and recreation, janitorial services, public works, pest control, or administration. The Coordinator(s) shall provide technical/logistical assistance to help said departments incorporate environmentally preferable products into their operations. Results of initial pilot studies shall be evaluated and reported to (jurisdiction governing body). As feasible, all departments are encouraged to advance environmental purchasing for their specific operations by initiating pilot studies.

Based on the results of the pilot studies, all departments, offices, and agencies shall use, and require their contractors and consultants to use, environmentally preferable products where practicable no later than (date).

RESEARCH, PLANNING, AND EDUCATION

The Environmental Purchasing Task Force shall research opportunities to (a) expand the purchase of environmentally preferable products; (b) identify environmentally preferable alternatives; (c) recommend goals, where practicable, to practice alternative processes within (jurisdiction) operations that will reduce the use/disposal of hazardous substances and will promote resource conservation; and (d) collect and maintain up-to-date information regarding manufacturers, vendors, and other sources for locating/ordering environmentally preferable products. The Task Force and/or Coordinator(s) shall provide applicable information to departments.

The Coordinator(s) shall submit annual reports to the (governing entity) by (date) regarding the status of this policy's implementation. This report shall include total purchases of environmentally preferable products by each department, results of designated product evaluations, and the financial status for implementation of this policy including indirect and direct costs/savings.

Relevant departments, offices, and agencies shall assign staff to:

- ensure that contracting procedures do not discriminate against reusable, recycled, or environmentally preferable products without justification;
- evaluate environmentally preferable products to determine the extent to which they may be used by the agency and its contractors;
- review and revise contracting procedures to maximize the specification of designated environmentally preferable products where practicable;
- facilitate data collection on purchases of designated environmentally preferable products by the agency and its contractors and report the data to the Environmentally Preferable Purchasing Coordinator(s) by (date) each year for inclusion in the annual report to the (jurisdiction governing entity).

PERFORMANCE, PRICE, AND AVAILABILITY

Nothing contained in this policy shall be construed as requiring a department or contractor to procure products that do not perform adequately for their intended use, exclude adequate competition, or are not available at a reasonable price in a reasonable period of time.

Note:

This resolution should be tailored to suit the individual needs and circumstances of your community.