



## 2012 Environmental Purchasing Program Annual Report - Supplemental Purchase Detail

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**King County**

Department of Executive Services

Finance and Business Operations Division

**Procurement and Contract Services Section**

**Environmental Purchasing Program**

[www.kingcounty.gov/procurement/green](http://www.kingcounty.gov/procurement/green)

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## BACKGROUND

King County produces an annual consolidated environmental sustainability report that encompasses several programs including climate change, energy, green building and environmentally preferable purchasing. Beginning with this year's annual report, it is now formatted to the five goal areas of the Strategic Climate Action Plan and aligns with King County's Strategic Plan. The report is published in June every year and sent to the County Council. In addition to this report, a supplemental purchase detail report is produced here to provide sufficient detail about several product and program objectives.

King County's Environmental Purchasing Program (EPP) works directly with internal county agencies to purchase environmentally preferable products and services. The program is guided by the county's environmental purchasing policy that was most recently updated in 2011.

## 2012 ACTIVITIES

In 2012, the EPP program had a summer intern, thanks to the National Association of Counties, Mobilize Green and the King County Solid Waste Division. The intern assisted the program in preparing for and providing assistance at several employee education events, researching environmental attributes of products, and researching and documenting policy initiatives of other public entities.

The program networks with other jurisdictions to exchange information on EPP programs and policies. This includes active involvement on the Responsible Purchasing Network Steering Committee and the National Association of Counties Green Purchasing Task Force. The EPP program manager also had several speaking engagements in 2012, including:

- King County "Responding to Climate Change" brownbag series
  - ▶ Debrief of 2011 environmental sustainability consolidated report; July, 2012
  - ▶ Environmental Purchasing Program; December, 2012
- US Environmental Protection Agency (EPA) Sustainable Materials Management Web Academy – Solid Waste Management and Recycling Educational Series
  - ▶ Green Purchasing: Tools for Federal, State, and Local Governments; July, 2012
- US EPA – Sustainable Materials Management Government Purchasing subcommittee
  - ▶ King County's GHG emissions inventory related to procurement web presentation; December, 2012
- National Institute for Government Purchasing
  - ▶ "Sustainable Purchasing 101" webinar; July, 2012
- Sustainable Biomaterials Collaborative, Responsible Purchasing Network, and USDA BioPreferred Program
  - ▶ "Biobased Products Procurement in the U.S" webinar - June 2012

## PURCHASES AND SAVINGS

In 2012, King County purchased over \$60 million worth of environmentally preferable products, saving \$1.8 million compared to the cost of conventional products. King County strives to buy products that are cost effective, meet performance requirements and are environmentally preferable. These products provide various environmental benefits, including

resource efficiency, reduced toxicity, durability, and/or recycled content.

The tables below summarize environmentally preferable product purchases in 2012. This data is obtained primarily from supply contracts, which are centrally administered goods and service contracts that enable county agencies to purchase materials at low and consistent prices. The tables also include data from one-time purchases and those under \$5000 that don't require a contract.

### 2012 PURCHASE SUMMARY

Office Products	Per	Units	\$
Can Liners	Case	7,176	183,783
Computers	Each	4,156	3,213,612
Copy and Bond Paper	Case	14,343	555,148
Glass Awards	Each	1,253	43,094
Printing Paper	N/A	N/A	1,154,321
Paper Products, Office	N/A	N/A	342,590
Toner Cartridges	Each	4,699	478,407
<b>Sub-Total</b>			<b>\$5,970,955</b>

Operations and Maintenance	Per	Units	\$
Asphalt, Recycled Shingles	Tons	4,000	N/A
Carpet	Sq. Yd.	6,518	272,821
Cleaners	Gallon	10,746	363,947
Compost	Yard	3,169	95,070
Hard Surfaces	Sq. Yd.	5,724	39,715
Paint, Low VOC	Gal	1,725	64,539
Paper Products, Janitorial	Case	16,385	629,235
Refurbished Furniture	Each	N/A	358,526
Solar Powered Bus Shelter Lighting	Each	129	463,100
Solar Powered Trash Containers	Each	66	260,955
<b>Sub-Total</b>			<b>\$2,483,369</b>

<b>Vehicular</b>	<b>Per</b>	<b>Units</b>	<b>\$</b>
Antifreeze	Gallon	25,881	83,667
Bio-Based Lubricants	Gallon	935	15,334
Electric Vehicles	Each	2	77,332
Flexible Fuel Vehicles	Each	294	6,785,654
Hybrid Vehicles	Each	8	213,416
Motor Oil	Gallon	81,406	613,281
Propane Vehicles	Each	8	238,470
Tire Retreading	N/A	N/A	130,943
Ultra-Low Sulfur Diesel (ULSD)	Gallon	13,387,681	43,546,991
<b>Sub-Total</b>			<b>\$51,705,088</b>

<b>Resource Recovery Services</b>	<b>Per</b>	<b>Units</b>	<b>\$</b>
Electronics Recycling	N/A		16,226
Fluorescent Lamp Recycling	Each		13,941
<b>Sub-Total</b>			<b>\$30,167</b>

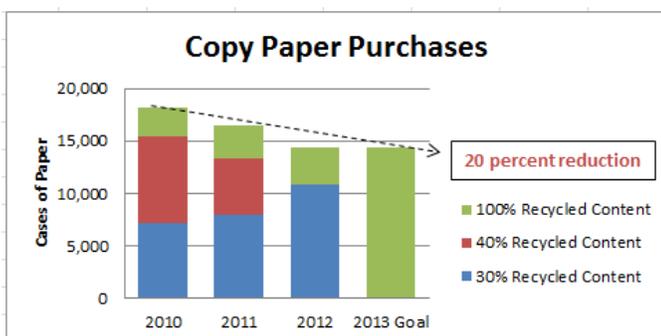
<b>Purchase Totals</b>			<b>\$60,189,179</b>
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## OFFICE PRODUCTS

### Copy and Bond Paper

King County has purchased recycled content copy paper with at least 30 percent post-consumer content meeting EPA's Comprehensive Procurement Guidelines minimum content standard since 1991. In 2011, the county updated its policy (KCC 18.20.040), requiring the increased use of 100 percent recycled content copy paper, paired with a 20 percent waste reduction in paper use by 2013. In 2012, the waste reduction target has been met, one year ahead of schedule, as overall use is down over 20 percent (20.93 percent) since 2010. Over the past few years, the use of 100 percent recycled content copy paper has grown to approximately 25 percent of all white copy paper purchases.

Agencies purchased a total of 14,343 cases of recycled content copy paper at a cost of approximately \$555,148 last year. Savings of \$219,000 have been achieved over the past two years, due to waste reduction efforts, including default double-sided copying, electronic documents in lieu of paper copies and other paper conservation strategies.



The Environmental Defense Fund [Paper Calculator](#) estimates that by converting the remaining purchases to 100 percent recycled content copy paper, instead of 30 percent content, reduces the environmental impact of County purchases by saving the equivalent of 4,560 trees, 2.13 million gallons of water and approximately 197 tons of CO<sub>2</sub>.

### Printing Paper

The County produces many publications, statements and forms in everyday operations. Agencies use recycled content paper in various business functions, including business cards, tax and court forms, posters, reports and bus timetables. The recycled content of this paper varies from 20 to 100 percent depending on the type of paper needed from newsprint to card stock. Much of this work is performed in the County Printshop, and when necessary, agencies contract outside vendors. In 2012, an estimated \$1.15 million was spent on paper costs associated with these contracts.

### Office Supplies, Paper

In addition to recycled copy and printing papers, the County also purchases various recycled office paper products. These include office supplies, such as envelopes, boxes, folders and notepads. The recycled content of this paper varies from 10 percent to 100 percent depending on the manufacturer and product type. These products are available on the office supplies contract and the "green" products are highlighted in the on-line catalogue. In 2012, agencies spent approximately \$343,000 on miscellaneous recycled content office supplies.

### Toner Cartridges

King County has purchased remanufactured toner cartridges for laser printers, fax machines and ink-jets since 1991. Cartridges supplied under contract must meet original equipment manufacturers (OEM) standards and provide full performance guarantees. The County's specifications require spent cartridges to be remanufactured and all components to be recycled when their useful life is over, reducing the landfill disposal of hazardous material. In 2012, the County purchased 4,699 cartridges for \$478,407. These purchases saved an estimated \$478,000. The cost of recycled cartridges varies, but is usually less than half the cost of new cartridges.

## Computers

The County has a policy to encourage agencies to buy EPEAT® compliant products. The [Electronic Products Environmental Assessment Tool](#), or EPEAT®, is an environmental procurement tool sponsored by the Environmental Protection Agency (EPA) and managed by the Green Electronics Council to evaluate, compare and select desktop computers, laptops, work stations and monitors based on their environmental attributes.

In 2012, the primary computer vendor supplied the County with 4,156 EPEAT® compliant products at a cost of approximately \$3.21 million. All desktops and workstations met the EPEAT® gold rating, meeting the 23 required criteria, plus at least 75 percent of the optional criteria. Monitors and notebooks were mostly gold, with the remaining purchases meeting the silver rating.

In addition to the procurement tool, the [Electronics Environmental Benefits Calculator](#) developed for the EPA that estimates the environmental and economic benefits of purchasing EPEAT®-registered products. According to its calculations, King County (across the whole life-cycle of the equipment) achieved a reduction of 1,271 metric tons of air emissions, including greenhouse gas reductions equivalent to 253 passenger cars and cost savings of \$250,245 through these purchases.

## Can Liners

In 2012, King County purchased 7,176 cases of can-liners at a cost of \$183,783.-These were made with 25-30 percent high-density polyethylene (HDPE) or 25 percent low density polyethylene (LDPE) recycled post-consumer plastic. County

agencies have used recycled plastic bags from various vendors with good results since 1991.



Facilities Management Division (FMD) buys Cedar Grove Composting approved compostable bags for food waste collection in employee kitchens in a few downtown buildings. They are also testing other

types and sizes of compostable bags in a few other limited areas.

## Glass Awards

Employees receive awards in five year increments for their career service. Last year, 1,166 employees received recycled glass awards engraved with their name and years of service. The manufacturer of these awards uses recycled glass. This award program diverted approximately one ton of glass from the waste stream in 2012. In addition, 87 retirement awards were purchased with Forest Steward Council (FSC) certified wood.

## OPERATIONS AND MAINTENANCE PRODUCTS

### Janitorial Paper Products

Agencies purchase thousands of cases of paper towels and tissue products. The recycled content of these papers varies from 10 percent (facial tissue) to 100 percent (towels) depending on the manufacturer and product type. Several unbleached and non-chlorine bleached products are available on contract. A new contract was established at the end of 2011 that requires higher levels of recycled content and for vendors to identify when the product meets an environmental certification such as Green Seal® or Ecologo™. In 2012, agencies spent approximately \$629,234 on 16,385 cases of janitorial products.

### Cleaners

County facilities are being cleaned using Green Seal® certified cleaners, including office buildings, correctional facilities, public health clinics, transit bases and the Downtown Seattle Transit Tunnel. Many of these products are concentrated and then are diluted with water as appropriate for the application, which yields many benefits, especially to worker health and safety as there is reduced exposure to toxic chemicals.

FMD, Metro Transit, Department of Adult and Juvenile Detention and the Department of Public Health purchased approximately 10,500 gallons of

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concentrated multipurpose cleaners, soaps and disinfectants in 2012. The disinfectants aren't certified green, but the majority is hydrogen peroxide based and they are EPA registered.

FMD and Metro Transit also use chemical-free equipment that utilizes water and microfiber clothes to clean many surfaces including restrooms and stainless steel.

The County maintains several janitorial service contracts in addition to having County staff clean facilities. The County supplies green chemicals to the contractor for use in the facility and any additional products have to be approved by the facility manager prior to use. There are currently four on-going service contracts with this criterion.

### **Paint, Low VOC**

King County relies on the Master Painters Institute's (MPI) – Green Performance® Standard (GPS) #1 and #2 to ensure that the majority of the paint purchased and used is environmentally preferable. The standard includes three essential elements: performance, chemical component restrictions and maximum allowable limits of volatile organic compounds (VOC's.) The County issued a new contract in 2011 to include this updated performance standard, which resulted in several low VOC paints on contract.

### **Carpet**

King County agencies buy carpet, cushions, adhesives and installation services for small remodels and renovation work through the State of Washington flooring contract. Many of the products available have various certifications for recycled content and other elements of environmental preferability, including low emissions of VOCs. We also use a national US Communities contract that has many sustainable and certified products.

In the past year, King County purchased 6,561 square yards of recycled content carpet with low VOC's. The carpets contained 11 to 68 percent recycled content and are certified to NSF/ANSI-140 Sustainable Carpet Assessment Standard. These carpets and adhesives also met the Carpet and

Rug Institute Green Label Plus certification for Indoor Air Quality (IAQ).

In addition, linoleum that is SMART certified was used at the King County courthouse. Linoleum is composed of natural materials and doesn't off gas as much as vinyl or other synthetic materials made with petroleum. FMD purchased 5,724 square yards for \$39,715.

### **Compost**

Compost amended topsoil is specified for use in maintenance and construction projects. Although several agencies require their contractors to use compost in their construction projects, it is difficult to cost effectively capture this data. Roads had four major projects in 2012, including Novelty Hill Road, South Park bridge, Sylvester Bridge and Patterson Creak bridge, for a combined total of 3,169 cubic yards of yard waste compost.

### **Trash Compactors, Solar Powered**

After a couple of years of trials, Transit purchased 66 solar powered, trash compactors to add to the four already in service. These units are enclosed systems that keep trash contained and dry during inclement weather and are resistant to birds and rodents. They also don't have to be emptied as often because the garbage gets compacted. Transit received federal money for the purchase of these items.

### **Solar Powered Bus Shelter Lighting**

One hundred and twenty new solar lighting kits with light-emitting diodes (LED) lamps were installed last year in bus shelters. These lighting systems are being installed in bus shelters that did not previously have lighting. Although these systems are costly, they are placed in areas where it is difficult and increasingly expensive to connect to the grid. Typical shelters are outfitted with 28 watt compact fluorescent lamps that use an estimated 111 kilowatt hours per year. Every solar shelter light installed saves the equivalent from the grid.

### **Lamps, Fluorescent and LEDs**

King County Procurement and Contract Services worked with the State of Washington on a new

contract for lamps and ballasts, awarded in June 2011, meeting the new 2012 federal energy efficiency requirements. In addition to price, the bids were evaluated on several non-cost environmental factors, including long-life lamps and reduced mercury and lead, referencing mercury limits set by the European Union's Restriction of Hazardous Substances Directive, as there are no current federal limits.

County agencies, including Facilities Management, Transit and Wastewater Treatment Division's have completed several projects at various facilities, including South Plant lighting upgrades; replacement of T-12 light ballasts with more energy efficient T-8 electronic ballasts at several Transit facilities including Safety & Training Center, South Facilities Maintenance. South Base offices, Component Supply Center offices, Non-Revenue Vehicle Maintenance, 9 Trolley Substations, Information Distribution, Central Base Maintenance, and Ryerson Base Maintenance. Total estimated annual energy savings is 767,824 kWh. Transit also replaced inefficient halide lighting used in Stores and warehouses with induction lighting and added sensors in 2012.



There has also been increasing installations of LED's. Metro's first LED parking lot lighting system was installed at the NRV parking lot to conserve energy, where they replaced inefficient fluorescent lighting.

### **Recycled Asphalt Shingles in Pavement**

Asphalt roofing shingles represent a key waste diversion opportunity. They can be processed into a ground product and used for road applications such as hot mix asphalt (HMA) pavement and cold patch. The absence of a state specification for this

application has been a significant barrier to recycling asphalt shingles from re-roofing projects locally. Beginning in 2012, a new Washington State Department of Transportation (WSDOT) General Special Provision allowed RAS in paving, removing this long standing barrier.



In 2012, the Solid Waste Division (SWD) used nearly 4,000 tons of HMA containing RAS at the new Bow Lake Recycling and Transfer Station

and nearly 10,000 tons more will be placed in the final construction of the project in 2013. The SWD also maintains an asphalt work order contract, under which HMA containing RAS has been used at two transfer stations and on several roads at the Cedar Hills Regional Landfill over the past year. The King County Regional Aquatics Center used RAS for surface repairs in the parking lot. And most recently, Metro Transit paved an 800-foot long stretch of its E3 busway with HMA containing RAS, to test how the material performs under bus traffic. Metro will monitor performance in 2013.

## **VEHICULAR PRODUCTS**

### **Motor Oil**

Motor oil made with re-refined base stock has been used in County vehicles operated by the Renton Maintenance Facility, Motorpool and Solid Waste Operations since 1992. In 1999, 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 1,300 buses. In 2012, the County purchased 81,406 gallons of primarily 15w40 in bulk and drums.

For the third year in a row, purchasing re-refined oil in bulk saved the County approximately \$.20 a gallon or \$16,281 in 2012. For years it was at a

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premium, but now it is less expensive due to the rising cost of petroleum products. The County recycles its used motor oil. Metro Transit alone recycled 78,434 gallons of used motor oil and received \$89,716 in revenue.

### **Antifreeze**

County fleets purchase antifreeze manufactured with re-refined ethylene glycol. Metro Transit uses a concentrated product for buses and introduces the necessary “additive packages” in the maintenance shops. In 2012, the County purchased 25,881 gallons of re-refined antifreeze and recycled 16,961 gallons at no cost.

### **Bio-Based Lubricants**

The Renton Maintenance Facility of the Fleet Administration Division (Fleet) has purchased vegetable-based hydraulic oils for use in their equipment, from lawn mowers to dump trucks, since 2001. Bio-based lubricants were tested by Fleet and found to perform as well as, or better than, petroleum oils. They are readily biodegradable, low in toxicity, and safer for workers. They require manufacturers to fill new equipment with vegetable-based hydraulic fluid and provide documentation at time of delivery. Although the initial cost of these lubricants is more expensive than their petroleum counterparts, there is reduced liability in case of a spill. In the past year, they purchased 17 drums (935 gallons) of bio-based lubricants.

### **Ultra-Low Sulfur Diesel**

In 2002, five years ahead of the EPA requirement, known as the “2007 Highway Rule”, King County began purchasing ultra-low sulfur diesel (ULSD) fuel. The fuel switch, along with the addition of diesel particulate filters, reduced particulate emissions by 90 percent. ULSD has the same energy and performance characteristics as standard diesel, so its use does not affect engine performance or warranties. In 2012, Metro Transit, Fleet and Solid Waste Divisions purchased 13.4 million gallons of ULSD fuel. These agencies continue to pursue additional fuel savings from employee driving habits to route improvements,

new technology and transfer station efficiencies. They are also pursuing a clean fuels policy. King County fleets were awarded the Government Green Fleet™ Award - Number 25 in 2012 of the Top 100 Nationwide Best Fleets.

### **Hybrid and Alternative Fuel Vehicles**

King County has been a leader in investing in new technologies, from alternative fuel vehicles in the 1990’s, to hybrids in the last decade, and starting in 2011 with all-electric passenger cars. County agencies purchased 277 alternative fuel vehicles, 8 hybrid-electric passenger cars, 2 electric cars, 129 hybrid buses and 8 propane trucks and in 2012.

### **Flexible Fuel Vehicles**

In 2012, the County purchased 294 flexible vehicles including 222 alternate fuel 7- passenger vans and 55 12-15 passenger vans operated by Metro Rideshare Operations.

Most of these vehicles are equipped to use ethanol, gasoline, or “E85,” the term for fuel blends of 85 percent ethanol and 15 percent gasoline. Using E85 reduces carbon dioxide (CO<sub>2</sub>), hydrocarbon and benzene emissions when compared to vehicles running on gasoline.

### **Hybrid Vehicles**

King County has purchased hybrid electric vehicles (HEVs) to replace older model vehicles as they are retired, since 2001. Hybrids are fuel-efficient and contribute less to greenhouse gas emissions. In 2012, hybrid sedans and SUV in the fleet numbered 178. These light-duty vehicles displaced approximately 30,899 gallons of unleaded fuel. The county purchased four Ford Fusions, Two Toyota Prius and two Ford C-max in 2012.

There are also five hybrid medium and heavy-duty trucks in the King County Fleet that were partly funded by EPA and CMAQ grants. During 2012, the five hybrid trucks saved approximately 1,289 gallons of diesel fuel.

### **Propane-Powered Vehicles**

Fleet purchased 8 additional liquid petroleum gas (LPG or propane) pickup trucks in 2012. The

incremental cost of \$104,460 for the factory-approved conversions was paid for with American Reinvestment and Recovery Act funding obtained through Clean Cities Coalition and the Department of Energy. Currently Fleet has 17 LPG pickup trucks, using 19,862 gasoline equivalent gallons (GGEs) of propane, displacing 11,723 gallons of unleaded gas.

In addition, Fleet operated 29 propane forklifts and 79 electric carts in 2012. A partial tracking of the LPG consumption of forklifts a total of 953.55 Gasoline Gallon equivalents (GGEs) in 2012.

### **Electric Vehicles**

Metropool launched as a pilot program in 2011 with 20 all electric | zero emission (EV) Nissan LEAF's. Employers in support of this project installed Level 2 (240 volt) charging stations that allow the metropool vehicle to be fully charged in approximately 7 hours if the battery is completely empty. In 2012, the program placed 20 metropools in operation, with an annual estimated fuel savings of over 9,400 gallons, over 150,000 gas free miles and over 200,000 metric tons of CO2 eliminated. Two additional Leafs were purchased in 2012 for this fleet.

### **Hybrid and Electric Buses**

Metro Transit bus fleet replacement project included the purchase of 30 40-foot hybrid buses and 99 60-foot articulated hybrid buses during 2012. These buses are 30 percent more efficient than the buses they replace. The Federal Transit Administration awards money to local jurisdictions



to help purchase these hybrid diesel-electric buses.

Trolley Bus Replacement Project – In 2012, King County Metro issued an RFP for the purchase of 155 electric trolley buses to replace its existing aging trolley fleet. The replacement trolley buses will have off-wire capability provided by an on-board electric energy system and will be 30 percent more efficient than current DC powered vehicles. The result will be a zero emission trolley bus system that can operate without temporary interruptions due to construction projects, significantly reducing energy consumption and GHG emissions relative to the existing fleet that must be dieselized most weekends.

### **Tire Retreading**

The County spent \$130,942 to retread tires for trucks and other heavy equipment at the Renton Maintenance Facility, Fleet and Solid Waste Operations. This not only avoided landfill disposal of tires, but also saved the County approximately half of the new-tire expense, as retreading a tire is half the cost of buying a new tire.

## **RESOURCE RECOVERY SERVICES**

### **Electronics Recycling**

King County agencies have been recycling obsolete computers, television sets and other electronic equipment with a local recycling firm since 2002. Electronic waste, or “e-waste,” is of particular concern if disposed of improperly because it contains a variety of heavy metals and other toxins that can leach into the environment. Of special concern are cathode ray tubes (CRTs), which are no longer accepted at the King County landfill, because they contain large amounts of lead.

King County Code requires working equipment to be surplus for redistribution within the County, donated or auctioned. Non-working equipment is recycled through a local recycler, through the Washington State contract for electronics recycling services that include strict requirements for recycling electronic components domestically.

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In 2011, King County received the designation as an “e-Stewards Enterprise” through the Basel Action Network’s (BAN) standard for responsible recycling and reuse of electronic equipment. The County recycles all of its electronic waste, or “e-waste” with a certified e-Stewards® recycler per policy (KCC 18.20). E-waste is of particular concern if disposed of improperly because it contains a variety of heavy metals and other toxins that can leach into the environment. In 2012, 85,938 pounds of electronic equipment, 10,376 pounds of cathode ray tube monitors, 1,945 LCD monitors, 13,060 pounds of televisions and 2,632 pounds of batteries were recycled locally.

### **Fluorescent Lamp Recycling**

King County businesses and residents are required to recycle products containing mercury, including fluorescent lamps, as they are no longer allowed in the garbage or accepted at transfer stations. King County established a contract for recycling waste lamps, including fluorescent tubes and high-intensity discharge (HID) lamps from its own facilities in 2000. Even though fluorescent lamps contain mercury and require recycling, they are three to four times more energy efficient than incandescent lamps, they last up to ten times longer and reduce greenhouse gas emissions. Responsible recycling reduces the hazard of mercury escaping into the environment. In the past year, King County recycled various lamps, including

36,231 compact, straight and u-tube fluorescent lamps; 3,307 HID lamps and 9,045 pounds of ballasts.

### **Asphalt, Concrete and Street Sweeping Recycling**

The Road Services Division Coordinated Reduction of Waste program (CROW), has been sorting and recycling materials, such as asphalt, concrete, and fill from road operations since 1991. They often recover asphalt and concrete from jobs and stockpile these for use as fill-material in road projects. The recycling efforts of the CROW program save more than \$300,000 every year.

Since 2003, the Division’s Street Waste Alternative Program (SWAP) has been processing and reusing street-sweeping waste and catch basin solids to create a berm that serves as a visual and auditory barrier around maintenance operations at the Summit Maintenance Facility. In the past year, they recycled 12,903 tons of treated waste from street sweepings, storm drain cleaning, and other road operations. Total cost savings for this program ranges from \$500,000 for recycling to almost one million dollars for disposal. This is because the Roads Maintenance Section paid a nominal fee of \$27 per ton to haul, consolidate, process, treat, test, and reuse their generated street sweepings and storm water decant solids as compared to higher costs of landfilling and recycling as opposed to reuse.

## SAVINGS (AND ENVIRONMENTAL BENEFIT) SUMMARY

In 2012, the County saved \$1.8 million by purchasing recycled and other environmentally preferable materials. The Environmental Purchasing Program has helped agencies identify opportunities to purchase environmentally preferable products that not only perform well, but also save money. In some cases, the product simply costs less and in other cases savings are found in avoided purchase costs because the alternative product is more durable. For example: the cost of a remanufactured toner cartridge is less than one-half the cost of a new cartridge, concentrated green cleaners cost less per gallon once diluted with water than concentrated cleaners, and it costs half as much to retread a worn tire as to buy a new one.

The table below represents estimated cost savings based on purchase price only, or avoided purchase cost, and does not reflect savings in maintenance and installation. These products also have an environmental benefit that is noted here.

Commodity	2012 Savings	Environmental Benefit
Aggregates	300,000	Avoided purchase cost
Antifreeze	25,881	Recycled
Computers	250,245	1,271 metric tons GHG reduction
Green Cleaners	363,947	Green Seal certified cleaners
Motor Oil	105,997	Recycled
Paper	118,265	197 tons GHG reduction
Tire Retreading	130,942	Recycled
Toner Cartridges	478,407	34 tons GHG reduction
Carpet	N/A	Reduced VOC's – certifications
Janitorial Papers	N/A	Recycled content; some 3 <sup>rd</sup> party certified
Lighting Upgrades	N/A	767,824 kWh savings
Paints	N/A	Reduced VOC's - certifications
Vehicles, Electric	N/A	200,000 metric tons of CO2 eliminated
Vehicles, Propane-Powered	N/A	Displaced 11,723 gal of unleaded gas
Vehicles, Hybrid Trucks	N/A	Saved approx. 1,289 gal diesel fuel
<b>Total Dollars:</b>	<b>\$1,773,684</b>	