## FY 2010-12



# Environmentally Preferable Purchasing Program (EP<sup>3</sup>) Report

Prepared by: City of San Diego Environmental Services Department Waste Reduction and Disposal Division



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Report produced by the Environmental Services Department (ESD), Waste Reduction and Disposal Division. For a copy online, go to <u>www.recyclingworks.com</u>.

## I. Introduction

This report documents the achievements of the City of San Diego in implementing the Environmentally Preferable Purchasing Program (EP<sup>3</sup>) for the period of July 1, 2009 through June 30, 2012, which covers Fiscal Years (FY) 2010 through 2012.

The City of San Diego is committed to finding ways to reduce workplace hazards and protect environmental resources by reviewing the products purchased by City departments and directing funds toward more environmentally responsible alternatives that are cost effective. This is accomplished through the Environmentally Preferable Purchasing Program (EP<sup>3</sup>) under the guidance of the Environmental Services Department (ESD) and the Purchasing & Contracting Department (P&C). The success of the program is proportional to the participation by all City employees as they realize the benefit of new opportunities offered by vendors and manufacturers that are increasingly embracing green technologies, products, and practices.

"Environmentally Preferable" (EP) means having a lesser or reduced effect on human health and the environment when compared with competing products that serve the same purpose. EP products or services minimize the consumption of resources, energy and water; prevent or minimize the creation of solid waste, air or water pollution; minimize the use of materials or processes which contaminate the environment; and/or promote the use of less or non-toxic substances; and avoid toxic materials or processes.

Due to significant advances in the quantity and quality of EP products and services, and the benefits they have on human health and the environment, ESD collaborated with the P&C Department and other City departments to develop an Administrative Regulation (AR). This AR serves as a framework for existing and future purchasing practices within the City organization. Its purpose is to balance multiple environmental attributes with price and performance considerations.

By developing the EP<sup>3</sup> AR and putting it into practice as illustrated in this report, the City is leading the way for businesses and other organizations to reduce our impact on the environment.

## II. Environmentally Preferable Purchasing\_

#### Administrative Regulation 35.80

AR 35.80, Environmentally Preferable Purchasing, became effective April 4, 2007 with the purpose of establishing guidelines and procedures for purchases of environmentally preferable products and services. The AR requires City departments to purchase EP products and services whenever practicable and expands the commitment of the City to purchase products with recycled content, lower toxicity, and greater conservation of energy, water, and other resources.

AR 35.80 states that "City departments shall purchase Environmentally Preferable Products or non-professional services whenever possible by taking into consideration appropriate environmental attributes or benefits along with price and performance standards." The AR identifies twelve basic environmentally preferable characteristics, or attributes to be used in evaluating whether a given product or non-professional service is environmentally preferable. These include:

- Alternative Energy Source
- Bio-based
- Biodegradable

- Compostable
- High Recycled Content
- Low Toxicity

- Low Volatile Organic Compound (VOC)
- Pollution (air, water, solid waste) Reduction
- Recyclable

- Repairable
- Resource Efficient (water conserving and/or energy efficient)
- Reusable

An Environmentally Preferable Purchasing Evaluation Checklist (Attachment 1) is available to City employees to assist with the evaluation of products and non-professional services. If an environmentally preferable product or service is not selected for use, the AR specifies that employees submit a Procurement Justification Form (Attachment 2) along with their purchase request. This is an aspect of the AR that needs further outreach and adoption by City Departments.

EP<sup>3</sup> is specifically geared toward employees who:

- Identify or specify products or services for purchase by their department or division
- Write bid specifications for products, equipment or services
- Draft contracts for products or services
- Use City Standard Purchase Orders; Citywide Open Blanket Purchase Orders; petty cash; City credit card; or other City purchasing methods

## **Program Goals**

The primary goal of EP<sup>3</sup> is to promote the purchase of EP products and services throughout City departments for the purpose of fostering the practice of responsible purchasing choices that are cost effective and reduce the impact of such purchases on public health and the environment.

To accomplish this, the following goals have been established for EP<sup>3</sup>:

- Increase purchases of EP products and services through expanded access to citywide contracts
- Educate City employees on the benefits and opportunities associated with EP products and services
- Institutionalize EP procurement activities among City personnel
- Improve tracking and reporting of EP purchases
- Provide outreach to vendors and service providers on the City's EP<sup>3</sup>

## **Program Implementation**

EP<sup>3</sup> is designed to implement and document changes in procurement practices of City employees, which can only be successful with the full participation of those employees responsible for purchasing decisions. With a \$2.8 billion dollar budget in FY14, it is evident the City has a unique opportunity to impact sustainable purchasing practices in the region. ESD and P&C have identified the following EP<sup>3</sup> program roles and guidelines:

#### ESD's role includes:

- Administer the EP<sup>3</sup> program to help City departments increase their purchase of EP products and services, with the City's Central Stores in close partnership
- Research recycled and other environmentally preferable products, applications, and service providers
- Communicate appropriate information to department contacts to enable them to incorporate environmental considerations when making purchasing decisions
- Produce and provide users with information about EP<sup>3</sup> products and services

- Develop and maintain an internet website, <u>http://www.sandiego.gov/environmental-services/recycling/ep3/index.shtml</u>, which:
  - o provides resources and tools to facilitate internal implementation of this policy
  - demonstrates the City's leadership in providing a resource for other agencies and organizations in the region
- Review EP<sup>3</sup> requirements with City departments and monitor the status of policy implementation
- Prepare reports on the status and progress of EP<sup>3</sup> to the Mayor

#### P&C's role includes:

- Ensure that City bid specifications and contracts require recycled and other EP characteristics whenever feasible and that contractors provide appropriate certification of this content
- Work with product and service contractors to track and report EP purchases made by City departments
- Assemble and disseminate evaluation results and reports of environmental purchases by departments
- Coordinate development and implementation of procurement guidelines and recommend revisions to City policy

During FY10-12, the following progress was made:

- Staff gave presentations and participated in webinars and discussions with other organizations and jurisdictions to support the development and implementation of green procurement programs. Outreach included the local chapter of the California Association of Public Procurement Officials, the San Diego Regional Sustainability Partnership, and the Responsible Purchasing Network.
- ESD continued to attend regular meetings with other departments (Engineering & Capital Projects, Field Engineering, Green Cities team) to extend outreach.
- Standard language was added to bid templates that encourages bidders to submit bid materials that contain recycled content, are easily recyclable, and printed in duplex.
- Awarded a comprehensive contract for maintenance, repair and operational supplies and worked with the vendors to supply and track environmentally preferable products and educate end users.
- Had several meetings with the City's office supply vendor to discuss environmental initiatives and increase the purchase of recycled products. Office supply vendor began to automatically substitute EP<sup>3</sup> products for certain items on orders (e.g., recycled paper substituted for virgin paper, remanufactured toner cartridges substituted for original equipment manufacturer) and set a minimum order shipping threshold.
- Awarded a new contract for multifunction copier/printer machines with environmental criteria such as Energy Star rated and capable of using 100% recycled copy paper.
- Added standard language to Janitorial Maintenance Service bids requiring the use of third party certified green cleaning chemicals.
- Revised AR 35.80 and procurement card handbook in 2011 to prohibit purchases of foam plastic foodware and non-essential purchases of bottled water.

- Began participating in plastic packaging material working group.
- Began participating in government procurement for climate change work group through the Environmental Protection Agency's West Coast Climate and Materials Management Forum.

### **Future Challenges & Opportunities**

As with any new undertaking, there are several challenges that must be faced in the City's efforts to increase environmental purchasing:

- Due to unfamiliarity with the many types of environmentally preferable products, staff and contractors may be reluctant to specify these products because of uncertainty about how they might be effectively substituted for more familiar products.
- New and emerging companies that develop and provide environmentally preferable products must first develop successful track records, including establishing the production, marketing, and distribution capacity to meet the needs of their customers.
- EP products and services must be cost effective when taking into account the lifecycle cost and the environmental benefit.
- Obtaining appropriate and pertinent information on environmental products often places unfamiliar demands on participants, which may cause resistance to the program.
- Many products purchased by the City must meet rigorous quality and performance standards, many of which did not originally take into consideration environmental attributes or impacts. Modification of these standards can be a slow process and many environmentally preferable standards and specifications are a work in progress as demand grows and new product offerings are made.
- Potential false claims ("greenwashing") by vendors are always a challenge and are addressed by verifying claims and certifications.
- Employees responsible for developing specifications and/or securing purchases must learn to balance competing claims of environmental preferability. There is no structured formula for this and employees should use judgment to decide how much weight to give recycled content; how much to give low toxicity; how to balance recyclability against energy efficiency; and how to prioritize the many other elements of environmental preferability.
- In order to document and monitor the program's progress, employees must track and communicate to ESD and P&C accurate information about purchases. ESD and P&C staff must have some understanding of the operations and procurement needs of other departments to effectively assist them with implementation and data collection.

ESD and P&C staff will address these challenges by:

- Maintaining liaisons between City departments and ESD and P&C to facilitate program implementation, purchases, and data collection
- Researching new applications for recycled and other EP products and encouraging supply and contract managers to specify them whenever possible
- Providing departments on-going training, information and assistance in developing specifications and contracts for EP products and services

- Maintaining links to the most comprehensive and authoritative databases to assist in the use of product specification language and specific products and vendors, including those that are third-party certified
- Helping product suppliers obtain feedback from various end users to assist them in refining product development and helping them understand the City's procurement processes
- Working with vendors to report their EP product sales to the City
- Continuing to network with other agencies and organizations to share information and successful implementation strategies

## III. Citywide Purchases

#### **Purchase Summary**

As seen in the range of products and services purchased, City employees continued to build on successes in prior years. By purchasing over **\$160 million dollars of "green" goods and services** in FY10 through FY12, and also realizing **savings and revenue of approximately \$21.8 million dollars** during that time; as a result the City has become a leader in green procurement in the region. The following tables summarize available information on the environmentally preferable product purchases and savings for the FY10-12 reporting years (July 1<sup>st</sup> – June 30<sup>th</sup>).

Citywide EP <sup>3</sup> Purchases <sup>(1)</sup>	FY10 Amount	FY11 Amount	FY12 Amount
Paper & Office Products			
Recycled copy/printing paper <sup>(2)</sup>	\$565,811	\$434,816	\$380,614
Soy-based printing ink	\$1,862	\$2,382	\$1,670
Office products <sup>(3)</sup>	\$502,081	\$438,064	\$589,286
Multi-function copiers/printers <sup>(4)</sup>	\$2,009,207	\$1,895,215	\$1,382,754
Computers, monitors, printers	\$ 2,127,228	\$941,562	\$948,892
Computer equipment recycling	\$31,980	\$12,796	\$14,230
Technotrash recycling	\$2,500	\$460	\$1,100
Subtotal	\$5,240,669	\$3,725,295	\$3,318,546
Vehicles & Vehicle Maintenance			
Hybrid vehicles	\$68,308	\$57,234	\$30,000
Recycled antifreeze	\$6,602	\$11,444	\$16,246
Re-refined oil	\$55,967	\$53,847	\$0
Water-based parts cleaners	\$39,275	\$18,824	\$42,564
Retreaded tires	\$ 480,665	\$335,463	\$483,307
Subtotal	\$650,817	\$476,812	\$572,117
Building and Construction Materials			
Slurry seal <sup>(5)</sup>	\$6,700,000	\$1,000,000	\$23,800,000
Overlay <sup>(5)</sup>	\$23,700,000	\$22,600,000	\$35,700,000
Asphalt	\$1,151,239	\$1,002,231	\$936,027
Aggregate road base	\$162,052	\$110,654	\$65,068
Asphalt crack sealer <sup>(5)</sup>	\$17,700	\$518,463	\$149,850
Plastic manholes	\$28,466	\$0	\$0
Recycled plastic traffic cones	\$26,000	\$27,000	\$28,000
Subtotal	\$31,785,457	\$25,258,348	\$60,678,945
Facility Maintenance, Supplies & Energy			

Janitorial supplies (cleaners, bag liners, bath tissue, paper towel, rags)	\$273,536	\$944,528	\$529,735
Compost and mulch	\$10,478	\$9,065	\$19,732
Energy efficiency building upgrades (lighting and HVAC)	\$10,568,000	\$7,280,868	\$6,900,000
LED "Walk/Don't Walk" signals	\$30,000	\$255,195	\$ 18,356
Green power purchase (methane and photovoltaic)	\$335,646	\$385,548	\$733,382
Subtotal	\$11,217,660	\$8,875,204	\$8,201,205
Other			
Reclaimed water	\$1,554,744	\$1,560,946	\$1,425,423
Trash and recycling carts/bins	\$651,221	\$703,693	\$1,118,082
Recycled glass awards	\$1,982	\$1,408	\$2,411
Subtotal	\$2,207,947	\$2,266,047	\$2,545,916
Total Citywide EP <sup>3</sup> Purchases	\$51,102,550	\$40,601,706	\$75,316,729

(1) Not a complete listing.

(2) Purchased by City Print Shop. Includes in-house and contracted jobs. Contracted jobs include other costs such as printing, finishing, binding, etc.

(3) Includes recycled content copy paper purchased from Staples for office use.

(4) Contract is for equipment lease and includes maintenance and imaging charges.

(5) Price includes labor and material.

Savings / Revenue from EP <sup>3</sup> Purchases <sup>(1)</sup>	FY 10 Amount	FY 11 Amount	FY 12 Amount	FY 10-12 Total
Energy efficiency savings	\$311,095	\$283,552	\$1,800,000	\$2,394,647
Reclaimed water savings	\$4,096,749	\$5,121,856	\$5,268,718	\$14,487,323
Retreaded tires savings	\$184,400	\$178,049	\$253,177	\$615,626
Renewable energy sales revenue	\$1,315,490	\$1,536,879	\$1,315,490	\$4,167,859
Recycling of old or damaged blue and black bins revenue	\$31,607	\$33,640	\$76,461	\$141,708
Total Citywide Savings/ Revenue from EP <sup>3</sup> Purchases	\$5,939,341	\$7,153,976	\$8,713,846	\$21,807,163

(1) Not a complete listing.

#### **Purchase Detail**

City departments purchased a variety of EP products and services, including: recycled paper, energy efficient products, green power, recycled pavement products, re-refined antifreeze and motor oil, tire-retreading services, reclaimed water, and hybrid vehicles. Many of these products were more economical than those they replaced. Following is a summary of these purchases.

#### Paper and Office Products

#### Office Products/Copy and Printing Paper

EP office supplies (mostly recycled content), remanufactured toner, and a minimum of 30% recycled content copy paper are purchased through a citywide contract. The vendor restricts the purchase of virgin paper; automatically substitutes remanufactured toner; and holds shipping for a minimum \$50 order to reduce delivery truck trips.

Standard paper purchased by the City Print Shop contains a minimum of 30% recycled content and can be used with soy-based inks. The Print Shop also specifies a minimum of 30% recycled content paper where practicable for jobs that are completed by outside printers.

#### Computer and Imaging Equipment

The Department of Information Technology (IT) has taken an active role in greening the City's computer equipment purchases by ensuring that desktop, laptop, and monitor purchases meet the Electronic Product Environmental Assessment Tool (EPEAT) standard for computer equipment. Laptop, desktop computers and monitors all meet the EPEAT Gold or Silver standard. In addition, most printers are Energy Star compliant and the City collects and recycles the spent toner and ink cartridges.

In addition to the printers that are purchased, the City leases multi-function copier/printers for most general office copying and printing needs. These machines consolidate copy, print, scan, and fax functions and help eliminate the need for separate pieces of equipment. The machines are Energy Star compliant and capable of duplex printing and copying. A new contract was awarded in FY12 that allows for the use of 100% recycled paper (the previous contract only allowed for 30% recycled content) and the new machines were installed with defaulted duplex printing. The vendor also recycles all toner cartridges for their equipment.

#### Electronics Recycling

The City recycles obsolete computers, TV's and other electronic equipment. In addition, the City began a "technotrash" recycling program in FY07 to recycle small electronics, accessories, cords, and storage media such as: CDs, DVDs, floppy disks, video tapes, handheld electronics, and digital cameras.

#### **Refurbished Office Furniture**

In FY10, ESD purchased 10 refurbished workstations for the new office trailer at the landfill. The refurbished products carried a 10 year warranty instead of the lifetime warranty on new workstations, but garnered a savings of 24%.



#### Vehicles & Vehicle Maintenance

The City regularly purchases Ford Escape Hybrids, and occasionally purchases other vehicles for evaluation such as the Toyota Prius and Smart Cars. The City also purchases many low emission vehicles that meet the California Ultra Low Emissions, Super Ultra Low Emissions, and Partial Zero Emissions standards.

ESD's Collection Services Division began using dual fuel trash and recycling collection trucks that ran on liquefied natural gas (LNG) and diesel in 2001. However, by 2004 these vehicles proved to be somewhat problematic and performance was less than anticipated. The development of ultra-

low sulfur diesel fuel (ULSD) fuel was found to produce lower emissions than the LNG dual fuel vehicles. Therefore, the City began switching to diesel vehicles and ULSD fuel as the dual fuel vehicles reached the end of their life cycle. The last of the LNG dual fuel vehicles were retired in FY08; therefore no purchases of LNG were made in FY09. ULSD fuel is mandated in the state of California and therefore not included in this report. In FY11, the City began purchasing biodiesel.

The trash and recycling collection fleet and some other heavy vehicles run on re-treaded tires and utilize re-refined motor and hydraulic oil. In addition, almost all fleet vehicles use recycled anti-freeze. Fleet Division also uses water-based parts cleaners instead of petroleum-based solvents and by 2010, completed the switch from lead to steel wheel weights in accordance with state regulations.

#### **Building and Construction Materials**

#### Street Repair and Resurfacing

The Street Division uses crushed aggregate road base and asphalt that are made with recycled materials. The division also has contracts for rubberized slurry seal and street crack repair sealant that is manufactured with recycled crumb rubber from tires. The division has occasionally also used Cold In-Place Recycling (CIPR) on City streets. CIPR involves grinding down the existing asphalt concrete pavement; mixing it with emulsifiers and other additives as needed; spreading and compacting the recycled mixture; and overlaying the recycled surface with a new layer of hot mix asphalt. This reduces the need to haul away grindings and bring in new material, reduces truck trips and emissions, conserves resources, and can sometimes costs less than traditional methods. Street Division continues to evaluate its use in certain applications.

#### Kellogg Park Green Lot Infiltration Project

La Jolla Shores is home to two Areas of Special Biological Significance (ASBS) as designated by the State Water Resources Control Board. To address the issue of runoff into the ASBS, the City developed the Kellogg Park Green Lot Low Impact Development project to capture, filter, and infiltrate surface runoff from the parking lot and public right-of-way. The project removed 18,000 square feet of asphalt concrete in 2011 and replaced it with pavement that captures surface water. In addition, a bioswale and filter bed were added to capture and infiltrate runoff, along with a new trash dumpster enclosure with runoff control.



#### 43<sup>rd</sup> Street and Logan Avenue Stormwater Filtration Project

The City installed another Low Impact Development project as part of the roadway improvements and realignment at the intersection of 43<sup>rd</sup> Street and Logan Avenue. The project, which started in February 2011 and finished in August 2012, captures and treats stormwater before it enters nearby Chollas Creek using a biofiltration basin and filtration cells.



#### San Dieguito Wetlands Restoration Project

In FY10, Engineering and Capital Projects Department pursued using recycled Class II base for a maintenance access road on the wetlands restoration project. Recycled base was not specified in the original plans, but engineering staff worked with ESD staff to research and ensure that sensitive wetlands would not be impacted while still using over 2,000 tons of recycled materials on this project.

#### Plastic Manholes

In October 2007, the Public Utilities Department (formerly Metropolitan Wastewater Department) began to pilot test plastic manholes to replace the concrete manholes that are usually installed. The plastic manholes are purported to have a longer life due their resistance to corrosion and have a much lower carbon footprint in the manufacturing and transportation phases. In addition, the manholes can be installed much quicker than concrete manholes. The plastic manholes were found to perform satisfactorily; however, the manholes have not been added the City's approved materials list because the City is awaiting engineering reports and further information from the manufacturer.

#### Facility Maintenance, Supplies, and Energy

#### Mulch and Compost

Mulch produced from green material brought to the City's Miramar Greenery is used for erosion control at the Miramar Landfill, eliminating the need to purchase straw or other virgin products. The Greenery's compost and mulch are also used for all restoration work at the City's inactive landfills and at City construction projects. In addition, the Park & Recreation (P&R) Department uses mulch (from the Greenery and other sources) in some areas for weed suppression, reducing the need for crews to cut the weeds.

#### Janitorial Supplies and Paper Products

Environmentally preferable janitorial products include: soap, cleaners, recycled content paper towels, bath tissue, and trash bag liners; and reusable mops and rags. The City awarded a comprehensive maintenance, repair, and operational supply contract in FY11 that reduced the number of vendors supplying products and allowed the City to better manage purchases. In addition, new specifications were added to janitorial service contracts requiring the use of certified green cleaners for vendor-supplied chemicals.

#### Renewable Power and Energy Efficiency

The Energy Division of ESD works with departments across the City to pursue its goal of energy independence and become a model city in energy conservation and the use of renewable energy. The City uses over 69 million kWh annually through onsite biogas, hydro, and solar installations; is a US EPA Green Power Partner and has been ranked on their Top 20 Local Government green power users, Top 20 On-site Generators, and National Top 50 green power users lists.

The City currently produces renewable energy through the following projects:

- The majority of the City's renewable energy comes from generation facilities using methane, mostly from sewage treatment and some from landfill disposal. Excess power is sold to San Diego Gas and Electric (SDG&E). Some of this power is produced through an agreement with a private third party that injects biomethane at one wastewater treatment plant and injects in the utilities natural gas system. It produces electricity with a fuel cell and sells the power to the City at a remote wastewater treatment plant. Over 24.4 MW of renewable energy are produced.
- A little over 1 MW comes from hydroelectric power generated as treated wastewater flows from the wastewater treatment plant down to its ocean outfall. This is enough energy to power 1,000 homes.
- 16 photovoltaic systems are installed throughout the region on City-owned facilities that are capable of producing 2.3 MW. Most of the facilities have rooftop systems that the City purchased and installed. At the Alvarado and Otay Water Treatment Plants, the City has power purchase agreements with a private firm that installed, owns and operates the photovoltaic systems. Power generated by the solar panels is purchased by the Public Utilities Department.

In addition to green power generation, the Energy division regularly works with City departments and the community to upgrade the energy efficiency of City facilities, businesses, and homes. Much of the funding for these projects comes from grants and low interest loans through the California Energy Commission, California Public Utilities Commission, Local Government Partnership with San Diego Gas and Electric, and the federal government. Millions of dollars have been spent on new energy efficiency lighting and mechanical upgrades at various City facilities, which will save millions of kWh and dollars annually. A few highlights from FY10 – FY12 include:

• <u>Scripps Ranch Community Recreation Center</u> - The Scripps Ranch Recreation Center was retrofitted in FY12 to become the region's first energy system using solar panels and batteries to power a City building independent of the electrical grid, and can act as a "stand alone" power source during an emergency. The \$545,000 grant-funded system consists of a 30-kilowatt solar array with a 100-kilowatt lithium-ion battery energy storage bank. When electricity is lost to the building, the advanced system automatically switches to the batteries, which are kept charged by the solar panels. The project has reduced the recreation center's energy bill to near zero from \$2,000 monthly using clean, renewable energy.





 <u>Broad Spectrum Street Lighting</u> - The City replaced approximately 35,000 street lights with more energy efficient broad spectrum induction lighting. Not only does it save energy, the lighting also improves visual perception, adding to public safety benefits. The project included matching funding from a California Energy Commission Loan in the amount of \$3 million; Qualified Energy Conservation Bonds in the amount of \$12.9 million; and \$2 million from an Energy Efficiency and Conservation Block Grant. On an annual basis, the estimated savings are 15 million kWh equating to approximately \$1.8 million in energy cost savings. In addition, the City will realize annual maintenance savings as the lamp life is expected to be at least 20 years. The City worked closely with the vendor to ensure comprehensive recycling of old fixtures and packaging materials from the new lights.



• <u>Municipal Energy Efficiency Retrofits</u> - Various municipal energy efficiency projects for lighting and HVAC upgrades. For example, lighting upgrades at 21 recreation center gymnasiums have been completed city-wide. Anticipated savings are 285,000 kWh savings and \$59,000 annually.

Ongoing energy efficiency measures include the following:

- Converting incandescent traffic signal lights to LED.
- In 2003, the City began converting the "Walk/Don't Walk" indications from incandescent to neon as replacement is needed. The Street Division spends approximately \$50,000 annually on the new neon lights. The new "Walk" indications, which are typically lit 35% of the time, reduce energy use from 20 watts to 8 watts; and the "Don't Walk" indications, which are typically lit 65% of the time, reduce energy use from 38 watts to 8 watts.

#### **Other Purchases**

#### Trash and Recycling Carts/Containers

The trash and recycling carts used in the City's curbside trash, recycling, and yard waste collection programs are made from 20% recycled plastic.

#### Reclaimed Water

Four City departments (Engineering and Capital Projects, ESD, Pubic Utilities, Parks and Recreation) purchased reclaimed water for irrigation, dust control, and industrial uses.

#### **Additional Savings / Revenue**

• The City earned over \$1 million in revenue each year from the sale of excess power produced by the cogeneration facility at the Point Loma Wastewater Treatment Plant.

- ESD's Collection Division recycles old curbside trash and recycling carts once they are no longer functional. This not only saves disposal costs, but also earns revenue from the scrap value of plastic.
- The City saves millions of dollars each year by using reclaimed water instead of potable water, primarily for irrigation and dust control at the Miramar Landfill and Greenery.
- Fleet Services saves thousands of dollars each year by using retreaded tires for some vehicle classes.
- Sales of Miramar Greenery compost, mulch and wood chip products for FY10-12 totaled more than \$1.5 million dollars.

## IV. Conclusion

Future progress with EP<sup>3</sup> will be through the accomplishments of City employees who are willing to facilitate change by working with vendors and service providers to offer viable and economical environmental products, as well as by pursuing ways to incorporate environmentally preferable products in new applications.