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Sustainability report for
operations at Metro facilities

November 2012



Metro | *Making a great place*

About Metro

Clean air and clean water do not stop at city limits or county lines. Neither does the need for jobs, a thriving economy, and sustainable transportation and living choices for people and businesses in the region. Voters have asked Metro to help with the challenges and opportunities that affect the 25 cities and three counties in the Portland metropolitan area.

A regional approach simply makes sense when it comes to making decisions about how the region grows. Metro works with communities to support a resilient economy, keep nature close by and respond to a changing climate. Together we're making a great place, now and for generations to come.

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November 2012

I am pleased to present the *2012 Green Metro Sustainability Report for Metro Facilities*.

This report highlights actions taken by Metro staff to help meet sustainability goals set by the Metro Council. The Metro Sustainability Plan sets targets for Metro's internal operations to reduce greenhouse gas emissions, reduce toxics, recover and reduce waste, reduce water use and support healthy ecosystems. While many Metro programs teach residents of our region about the value of sustainability, it is even more important that Metro staff practice sustainability in our work every day.

The actions in this report are key to meeting Metro's mission and upholding our organizational value of sustainability. They are the result of a collaborative effort among our facilities and visitor venues. Despite the different nature of Metro's operations, staff has demonstrated a clear commitment to leadership in resource use and protection.

As we move forward in carrying out the plan, we face challenges in fully meeting our sustainability goals across the agency. I look forward to working with the Metro Council and our sustainability program in finding innovative approaches and solutions to meet those goals and, in turn, benefit our communities and the region as a whole.

Sincerely,






A handwritten signature in black ink, appearing to read "Martha Bennett".

Martha Bennett
Chief Operating Officer, Metro

INTRODUCTION

As a regional government committed to promoting sustainable communities, Metro is working to reduce its own ecological footprint. This report describes the efforts to reduce the environmental impact of Metro's public venues, parks, buildings and solid waste facilities.

In 2003, the Metro Council set an ambitious target for internal operations to be sustainable within one generation. To this end, the council adopted goals in five key categories to reduce the agency's environmental impact:

	Reduce carbon	Reduce direct and indirect greenhouse gas emissions to 80 percent below 2008 levels.
	Choose nontoxic	Eliminate the use or emissions of persistent bioaccumulative toxics (PBTs) and other priority toxic and hazardous substances.
	Prevent waste	Reduce overall generation of waste, and recycle or compost all remaining waste.
	Conserve water	Reduce water use to 50 percent below 2008 levels.
	Enhance habitat	Ensure that Metro's parks, trails, natural areas and developed properties positively contribute to healthy, functioning ecosystems and watershed health.

Metro's comprehensive sustainability plan identifies strategies plus nearly 100 actions to achieve the above goals. The goals are slated for completion by 2025 or, in the case of greenhouse gas emissions, 2050. The Metro Council adopted this plan by resolution on Oct. 7, 2010. The plan is available online at www.oregonmetro.gov/greenmetro.

The sustainability plan guides operations objectives for six types of facility operations: public event venues, including the Portland Center for the Performing Arts, Oregon Convention Center and Portland Expo Center; the Oregon Zoo; solid waste transfer stations and household hazardous waste facilities; the Metro Paint recycling facility; multiple regional parks; and one office facility.

LOOKING AHEAD

Since the Sustainability Plan was adopted in 2010, Metro departments and visitor venues have taken substantive steps toward implementation. In particular, Metro facilities made notable improvements in energy efficiency and toxics reduction this past year. However, if Metro is to meet the goals established by Council, it must make strategic investments in each of the five environmental performance areas. Based on priorities established in the plan, and subsequent refinement by Metro's Internal Sustainability Steering Committee, the strategic investments for the 2013-14 fiscal year could include:

- further energy efficiency upgrades at the Oregon Convention Center, Oregon Zoo and PCPA
- transition to purchase of less-toxic cleaning products and paints at all facilities
- water conservation improvements at Glendoveer Golf Course and the zoo
- stormwater management improvements at Portland Expo and the zoo.

In addition, the sustainability program will need to complete current efforts to:

- update Metro's Capital Asset Management Policies to incorporate sustainability criteria and clarify methods of funding sustainability-related facilities projects
- fully implement the agency's Sustainable Procurement Administrative Procedure and Green Building Policy.

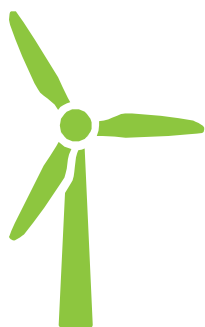
Find a full list of completed and in-progress actions from the Sustainability Plan on pages 21-23 of this report.

Facility-specific data and charts are available upon request to Molly.Chidsey@oregonmetro.gov.

MEASURING PROGRESS

Metro tracks progress toward its environmental sustainability goals by measuring performance in five indicators against a 2008 or fiscal year 2008-2009 baseline year.

Goal 1: Reduce carbon emissions



Goal	Reduce greenhouse gas (GHG) emissions 80 percent below 2008 levels by 2050.
Indicators	Greenhouse gas emissions for Scopes I, II and III, reported in metric tons of carbon dioxide equivalent (MT CO ₂ e). Electricity consumption from Metro facilities reported in kilowatt hours consumed (kWh).
2013 target	Arrest GHG emissions at the 2008 level.

Metro completed a comprehensive greenhouse gas (GHG) emissions inventory for internal operations using 2008 as the baseline year.¹ The top sources of GHG emissions from Metro's operations include purchased goods and contracted services (supply chain), electricity, and natural gas (Figure 1). Metro does not complete a comprehensive GHG inventory every year, so for the sake of this report electricity consumption is used as a proxy indicator of progress toward the agency's greenhouse gas emissions goal.

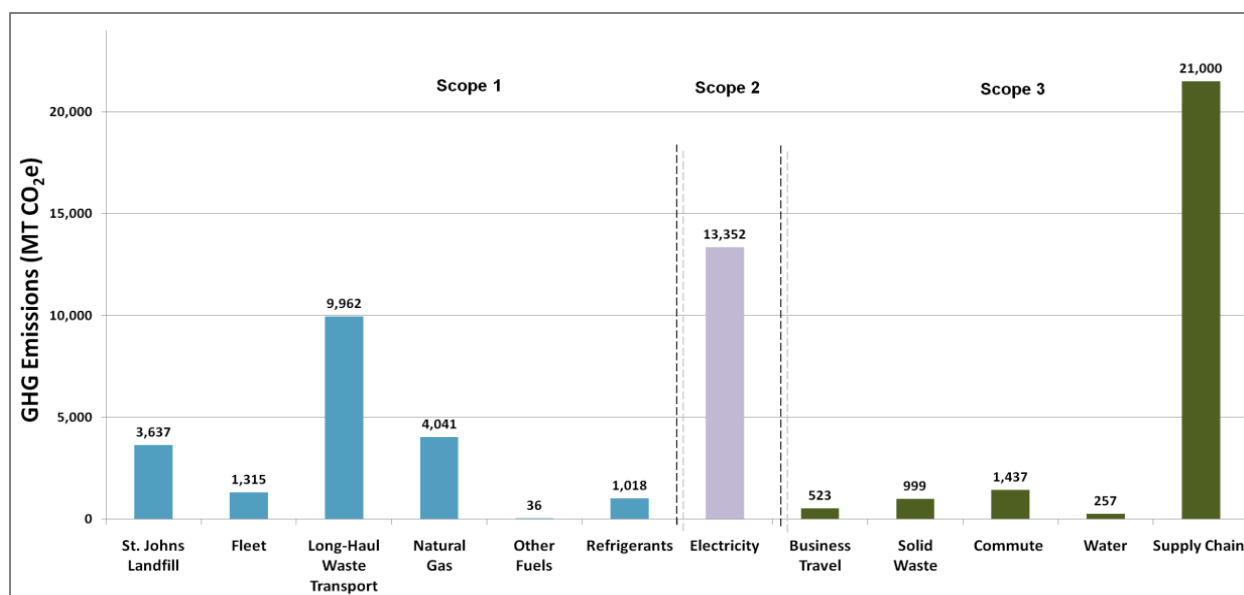


Figure 1: Sources of greenhouse gas emissions from Metro internal operations, 2008

¹ Metro GHG Emissions Baseline Inventory for Metro internal and business operations, August 2010.
http://library.oregonmetro.gov/files/metro_internal_ghg_inventory_8-10.pdf.

The production of goods is a major source of greenhouse gas emissions and Metro's procurement of goods and services, which include food, supplies and construction materials, have a significant correlating climate impact. Through sustainable procurement efforts, these "embodied emissions" may eventually decline.

The next highest source of GHG emissions from Metro's operations is energy use in facilities, including electricity and natural gas. Metro invested in several energy efficiency projects during the 2011-2012 fiscal year. These upgrades in lighting, HVAC equipment and energy conservation practices all contributed to the reduction in electricity use during this past fiscal year (figures 2 and 3). To meet GHG emissions reduction goals, Metro needs to make consistent investments in energy efficiency measures identified for its major facilities and largest electricity consumers, in addition to other GHG-reducing actions outlined in Metro's sustainability plan.

Until more information is available about the GHG reduction potential from emissions sources (i.e., electricity, procurement, fleet fuels, etc.), Metro assumes an interim target reduction of 15 percent for all GHG source categories, including electricity.

Electricity consumption from Metro facilities (kWh)

Fiscal year ²	kWh	Percent change over 2008 baseline
FY 11-12	29,379,651	-8%
FY 10-11	30,900,573	-3%
FY 09-10	31,740,216	-1%
FY 08-09 ³	31,927,014	

Figure 2

Electricity consumption (kWh)

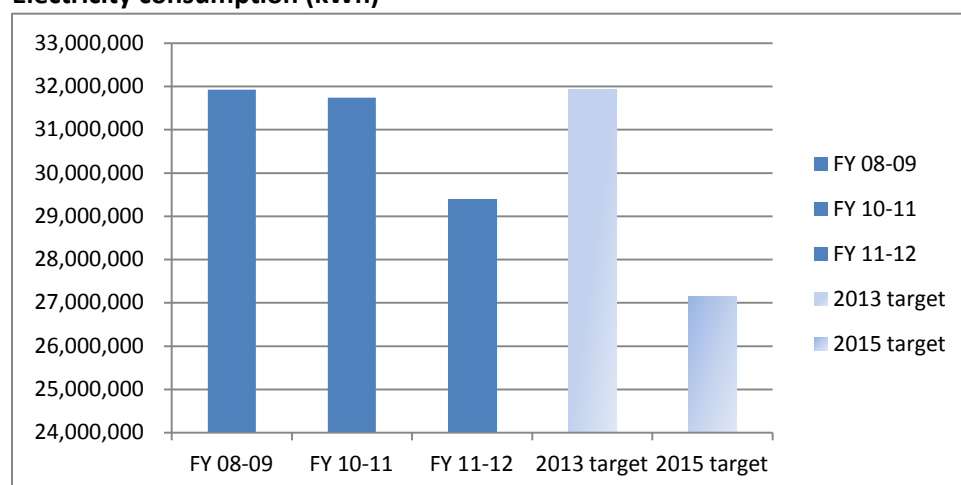


Figure 3

² kWh consumption numbers for all years are updated based on more comprehensive data in Metro's Utility Manager database.

³ The 2008 baseline for electricity usage is replaced with the FY 08-09 data for consistency in reporting timeframes.

Goal 2: Choose nontoxic



Goal	Eliminate the use or emissions of persistent bioaccumulative toxics (PBTs) and other priority toxic and hazardous substances by 2025.
Indicator	Percentage of chemical products used at Metro facilities that have ingredients with the worst rating (a 3 on a 1-3 scale) ⁴ for health, environmental or physical hazard.
2013 target	20 percent reduction from 2008 levels of chemical products in use at Metro with a “3” rating for health, environment and/or physical hazard.

Metro uses an inventory of chemical products and corresponding material safety data sheets (MSDS) to track toxicity of products in use in Metro operations. Some products are rated high hazard in more than one category, so the total exceeds 100 percent. Over the past year, Metro facility and venue managers led a major clean out of storage areas as well as a subsequent update of the MSDS inventory and database. Data from the 2011-12 fiscal year below are incomplete due to the inventory update in progress at PCPA facilities for which data is not yet available.

Percentage of chemical products use at Metro facilities that are rated high hazard

	Total products in MSDS inventory	Products with high hazard ranking in one or more categories	% change over 2008 baseline
FY 11-12 ⁵	1,959	1,052	Insufficient data to calculate change
FY 10-11	3,703	2,119	-1%
2008	3,638	2,110	

Figure 4

Percentage of chemical inventory rated high hazard

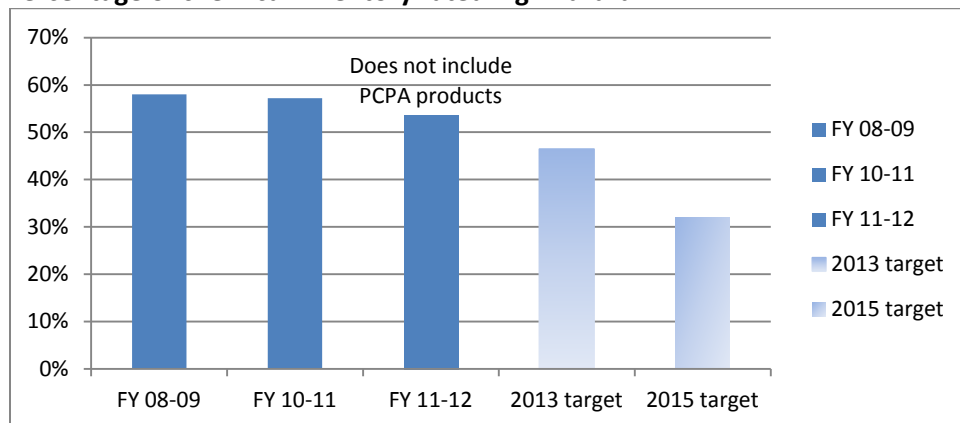


Figure 5

⁴ About hazard ratings in Metro’s MSDS database, hosted by the Chemical Risk Information System at OHSU: Health ratings are based on criteria including the constituent’s acute toxicity, irritant properties, and potential to cause cancer or produce developmental or reproductive toxicity. Environmental ratings are based on toxicity to aquatic organisms and other indicator species, persistence and tendency to accumulate in the environment, and potential to damage the ozone layer. Physical hazard ratings consider flammability risk level and potential for reactivity. A score of 3 indicates high hazard, 2 indicates intermediate hazard and 1 indicates low hazard.

⁵ FY 11-12 does not include chemical product MSDSs for PCPA facilities due to inventory update in progress.

Goal 3: Prevent waste



Goal	Reduce overall generation of waste, and recycle or compost all remaining waste by 2025.
Indicators	Weight of waste generated (garbage plus recycling and compost). Percent of waste recovered for recycling or compost.
2013 targets	Recycle or compost 50 percent of waste (Metro-wide average). Arrest waste generation at 2008 levels; reduce waste generation 10 percent from 2008 levels by 2015.

To measure progress toward the goal of recycling or composting all waste, as well as waste reduction, Metro tracks recycling rates and overall waste generation (weight of garbage, recycling and compost) from the major facilities in the agency's portfolio. The average recycling rate improved each of the past two years.

Percentage of waste recovered from Metro facilities for recycling or compost

	Average recovery rate	% change over 2008 baseline
FY 11-12	59.9%	9%
FY 10-11	56.9% ⁶	6%
2009	50.7%	-0.4%
2008 ⁷	51.1%	

Figure 6

Recycling rate

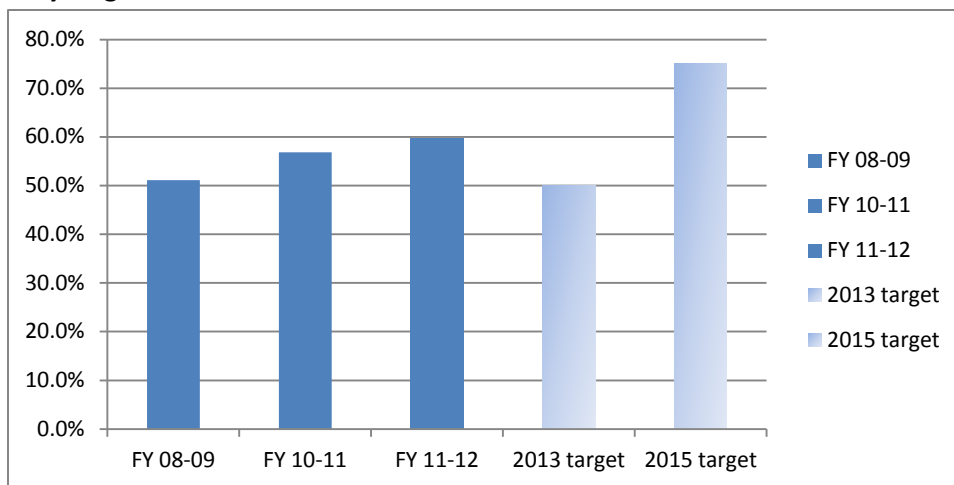


Figure 7

⁶ FY 10-11 recycling recovery rate updated to reflect corrected recycling information from Metro Paint.

⁷ The 2013 target for recycling recovery was set at 50 percent at the time the Sustainability Plan was written because the 2008 recycling average was approximately 44 percent. Since then, additional data was added for Metro facilities for 2008, which boosted the Metro-wide average to 51.1 percent.

Waste generation, however, continues to rise. Metro facilities collectively generated 17 percent more waste in fiscal year 2011-2012 than they did in the 2008 baseline year (figure 8).

Waste generation from Metro facilities (tons)

	Tons	% change over 2008 baseline
FY 11-12	3,172	17%
FY 10-11 ⁸	2,931	7%
2009	2,604	-4%
2008	2,701	

Figure 8

Waste generation (tons)

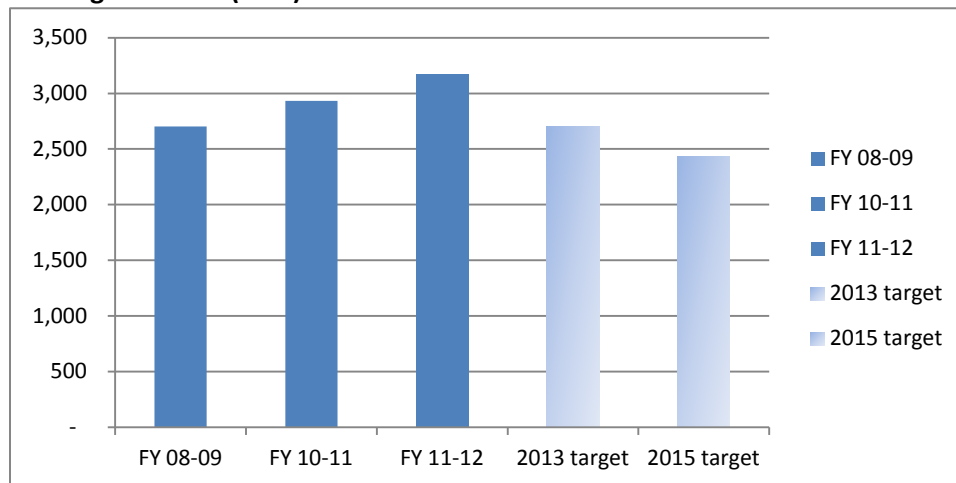


Figure 9

⁸ FY 10-11 waste and recycling numbers for Metro Paint were updated, altering the recycling recovery average for that year. PaintCare, a paint recycling program supported by paint manufacturers, launched in July 2010 and MetroPaint is the recycler for paint recovered in this program statewide. Due to significant increases in volumes of paint recycled at the facility in FY11-12 resulting from this program, the waste generation from the facility has also increased due to higher volumes of used paint cans and other wastes collected for processing. The MetroPaint recycling numbers do not include the paint itself, but does include paint cans.

Goal 4: Conserve water



Goal	Use 50 percent less water from 2008 levels by 2025.
Indicator	Gallons of water consumed from water utilities and on-site sources.
2013 target	15 percent decrease in water consumption from 2008 levels.

Water usage data for Metro facilities is collected from water-providing utilities and from well water usage records. Water use is reported in CCF, or hundred cubic feet (equivalent to 748 gallons). Water consumption for Metro facilities in 2011-12 was down eight percent over the FY 2008-2009 baseline year. Glendoveer Gold Course and the Oregon Zoo continue to be the top water users of the Metro facilities. Metro needs to implement strategic water efficiency upgrades at these facilities to meet the 2015 target of a 30 percent reduction from 2008 levels (figure 11).

Water consumption from Metro facilities (hundred cubic feet, CCF)

	CCF	% change over 2008 baseline
FY 11-12 ⁹	253,903	-8%
FY 10-11	241,464	-12%
FY 09-10	263,134	-4%
FY 08-09 ¹⁰	275,131	

Figure 10

Water consumption (CCF)

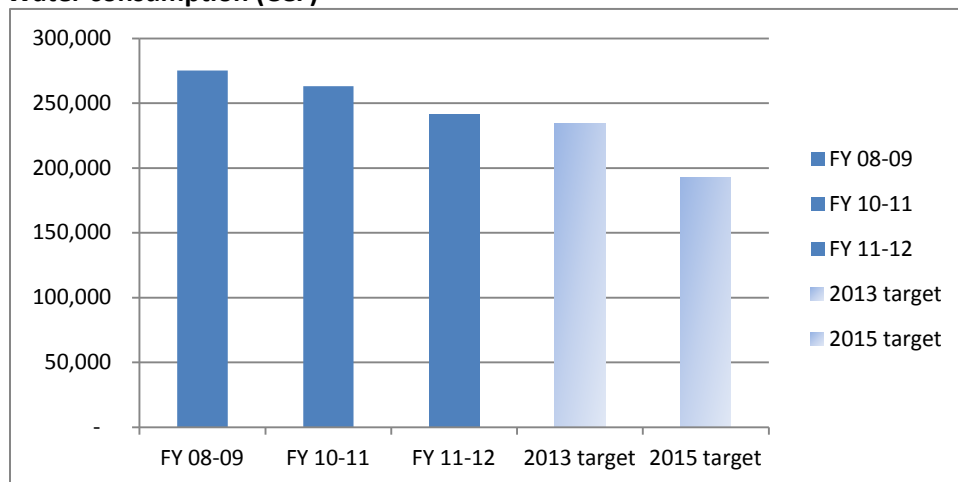


Figure 11

⁹ Tracking of well water use for irrigation at the Glendoveer Golf Course using a flow meter during FY 11-12 significantly increased quantities tracked for this facility and thus the overall Metro-wide total for FY 11-12. Baseline year and previous year totals updated.

¹⁰ The previous 2008 calendar year baseline was replaced with a FY 08-09 baseline from Metro's Utility Manager database.

Goal 5: Enhance habitat and reduce stormwater



Goal	Ensure that Metro's parks, trails, natural areas and developed properties positively contribute to healthy, functioning ecosystems and watershed health by 2025.
Indicator	Percentage of effective impervious area ¹¹ on Metro's developed properties; impervious surfaces directly connected to a stream or drainage system and not directed to a green roof, swale or other pervious area.
2013 targets	Arrest to 2008 levels and begin to reduce effective total impervious area on developed properties. Identify habitat-friendly improvement opportunities for developed properties.

Tracking the effective impervious surface areas is a way to monitor the quantity of stormwater runoff from Metro's developed properties and impacts to habitat health. The impervious surfaces of Metro properties are largely unchanged since 2008 (figures 12 and 13). The addition of an ecoroof at the Metro Central Household Hazardous Waste facility helped to improve performance slightly in FY 2011-2012. Strategic investment is needed at the Expo Center and the Oregon Zoo to make an impact on this goal area.

Effective impervious area at Metro facilities

	% of effective impervious area	Effective impervious area, square feet	% change over 2008 baseline
FY 11-12 ¹²	80.15%	4,508,795	-2.1%
FY 10-11	80.20%	4,511,560	-2.0%
2008	81.86%	4,511,560	

Figure 12

Effective impervious area (percentage of total impervious area)

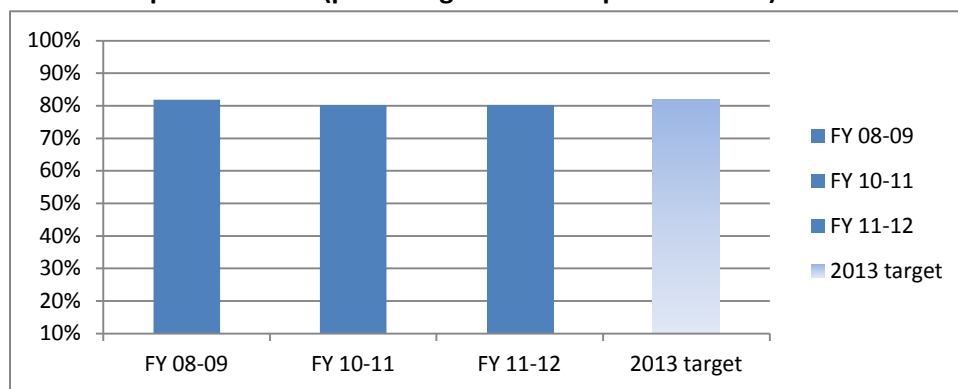


Figure 13

¹¹ Impervious area such as rooftops, streets, sidewalks and parking areas do not allow water to drain into the soil. Impervious area that collects and drains the water directly to a stream or wetland system via pipes or sheet flow is considered "effective impervious area" because it effectively drains the landscape. Impervious area that drains to landscaping, swales, parks and other impervious areas is considered "ineffective" because the water is allowed to infiltrate through the soil and into ground water, without a direct connection to the stream or wetland. <http://www.cleanwaterservices.org/content/documents/watershed%20info/effective%20impervious%20area%20report.pdf>

¹² Percentage of effective impervious area improved in FY 10-11 due to addition of Graham Oaks Nature Park, which treats all impervious surface stormwater on site.

HIGHLIGHTS OF METRO'S SUSTAINABLE OPERATIONS IN 2011-12

Metro venues and facilities successfully implemented several projects in FY 2011-2012 that support the Metro Sustainability Plan. In addition to their impacts on meeting the targets described above, these projects share other common outcomes: increased awareness of sustainability goals among operations staff; increased accountability among operations managers; and increased support for improving resource conservation despite staff capacity constraints. The projects highlighted in this report are just a few of those Metro undertook in the past year. A full list of sustainability plan actions and their status can be found on pages 21-23.

A new ecoroof graces Metro's household hazardous waste facility

Staff chose to install an ecoroof when the Metro Central Household Hazardous Waste facility in Portland was due for a roof replacement. The 2,665-square-foot ecoroof covers approximately 60 percent of the facility's roof area and was designed to be low-maintenance by using 13 varieties of hardy sedum plants. The ecoroof was designed by a team from ORANGEWALLstudios and TERRA.fluxus and constructed in the summer of 2012.

The building is used for collection of hazardous household products, including pesticides, leftover paint, solvents and automobile fluids from the public. Such collection keeps area waterways safe by preventing dumping in sinks or disposal in landfills. This project demonstrates Metro's commitment to habitat-friendly development practices in facility operations and maintenance. The project was supported by a \$13,325 grant from the City of Portland Ecoroof Incentive program, which offset 29% of the ecoroof portion of the project costs.

For more information contact Pete Hillman, construction coordinator, Pete.Hillman@oregonmetro.gov.



A 2,665 square foot ecoroof was added to the Metro Central Household Hazardous Waste facility in Northwest Portland.

Green Team at the Metro Regional Center (MRC) shows it's easy being green

Fourth floor plaza improvements

In June 2012, the Sustainability Center's Parks Planning & Development team and the Parks & Environmental Services Building Operations staff improved the 4th floor plaza. Staff rolled up their sleeves to assemble, install and plant six large planters in the area next to the MRC ecoroof. The project used locally sourced materials gathered within five miles of MRC and purchased from locally-owned small businesses. The planters' native and drought tolerant vegetation provides additional places for pollinators and birds to rest and feed, improves water quality by capturing stormwater runoff and improves outdoor space for employee meetings and breaks.



A revitalized ecoroof

This spring, MRC Green Team members partnered with Metro's Native Plant Center, MRC staff and volunteers to revitalize the MRC ecoroof. Together, they planted about 300 native plants, including sedum, alliums, Oregon sunshine and smooth alumroot, all grown at the Native Plant Center. The plants are drought-tolerant, hardy and resilient, making them suitable for harsher rooftop conditions such as wind and hot temperatures.



Easier car-free commuting

Now Metro staff and visitors can find the quickest, closest transit option for trips to and from the MRC. The real-time transit display installed at the front desk provides up-to-date bus and MAX arrival times at transit stops located near the MRC.



2012 Earth Day celebration

The MRC Green Team celebrated Earth Day with some serious sipping and swearing. More than 165 MRC employees used a reusable mug for their beverage purchase that day. In addition, 40 people signed pledges swearing off single-use paper cups and received a reusable mug. Despite an epic showdown between the Sustainability Center and Parks & Environmental Services departments, Metro's Human Resources had the highest percentage of people using reusable mugs.

For more information contact Resa Thomason, Metro Regional Center Green Team Chair at Resa.Thomason@oregonmetro.gov.



Cleaning out closets and reducing hazardous materials at Metro facilities

Metro venues are among the many public agencies and small businesses that use the Conditionally Exempt Generator (CEG) Program operated by Metro's own hazardous waste facilities. This program allows for the safe and proper disposal of hazardous waste generated by these venues. Similar to household hazardous wastes, typical wastes are paint, solvents, aerosols, acids, cleaners, fluorescent light bulbs and batteries. With an increased focus on proper hazardous waste management, Metro's venues have successfully cleaned up stockpiled waste and improved workplace safety, all while maintaining favorable generator status.

- Oregon Zoo removed 7,198 pounds of hazardous waste.
- Oregon Convention Center removed 3,248 pounds of hazardous waste.
- Portland Expo Center removed 2,652 pounds hazardous waste and spent fluorescent lamps.

Once the cleanout was complete, facility staff inventoried remaining products and collected material safety data sheets (MSDS) for each product. This information was used to update Metro's online MSDS database and toxic hazard screening tool.

For more information, contact Lisa Heigh, toxics reduction planner, at Lisa.Heigh@oregonmetro.gov.



Storage closets like this one were cleaned out at multiple Metro facilities to properly dispose of hazardous materials no longer in use.

Oregon Zoo ecoroof serves as testing ground for future building

In a collaborative partnership with Portland State University, design consultants and construction firm Lease Crutcher Lewis, the Oregon Zoo completed its first ecoroof project this year. A working model for the future conservation education center's ecoroof, this 100-square-foot structure will test an unusual design and educate visitors about the benefits of ecoroofs. The model's main purpose is to test how well an ecoroof with a steeply sloped design will fare. The ecoroof for the center will be approximately 200 times larger than the model, with the steep slopes enabling visitors to see much of the plantings from ground level.

The PSU Design Collaborative, a group of architecture, engineering and environmental science students, contributed its sustainability expertise to the project. Students helped select plants, from drought-tolerant grasses to cascading sedums, with a focus on native species, promoting biodiversity and attracting birds, bees and butterflies. Interpretive signs on the model acquaint visitors with ecoroof basics and illustrate how voters' zoo bond dollars will help the environment.

Because of the collaborative nature of the project, the zoo's only investment was labor from horticulture staff. The following donors gave both time and money to make the model happen: Atelier Dreiseitl + Place landscape architects, Bain Associates, CLR Design architects, KPFF consulting engineers, Lease Crutcher Lewis, Portland State University's School of Architecture and Engineering, Snyder Roofing, and SRG Partnership architects.

Learn more about Oregon Zoo's Conservation Discovery Zone project at http://www.oregonzoo.org/sites/default/files/downloads/110908_cdz_pre-schematic-final.pdf.

For more information, contact Jim Mitchell, Oregon Zoo construction manager, at Jim.Mitchell@oregonzoo.org.



A model ecoroof at the Oregon Zoo tests a steep slope technique and educates visitors about the benefits of green roofs.

Oregon Zoo wins Green Award from the Association of Zoos and Aquariums

The Oregon Zoo was honored with the AZA's Green Award, recognizing "significant achievement" in reducing the environmental impact of its day-to-day operations.

In 1991, the zoo became one of the first AZA institutions to establish an in-house "Green Team" – a group of staff members that reviews programs and operations with an eye toward sustainability and conservation. The zoo has since expanded its recycling and composting programs to the point where nearly 80 percent of all solid waste is diverted from landfills. New animal habitats, a veterinary medical center and a new education center all are guided by a 20-year master plan that aims to reduce the zoo's environmental impact while increasing awareness among visitors.

"If we want a better future for wildlife, it's crucial for us to conserve natural resources now and make sure all of our operations are environmentally sustainable," says zoo director Kim Smith. "It makes sense for the zoo to walk the walk, and be a model of green operations in the community."

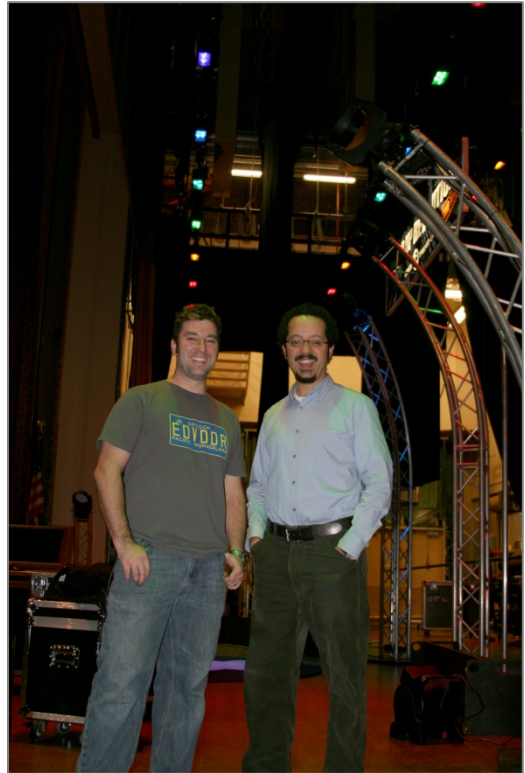


The zoo's spacious concert lawn, a favorite gathering spot for friends and families, has been 100 percent pesticide-free for more than 20 years.

CPA's Arlene Schnitzer Concert Hall saves energy with LED lighting

Portland Center for the Performing Arts (PCPA) recently upgraded the lighting system in the Arlene Schnitzer Concert Hall with 36 ETC Selador Classic Vivid-R™ LED luminaires. By installing the fixtures, the venue expanded its color capabilities, reduced its energy usage and earned cash incentives from Energy Trust of Oregon to put toward the fixtures' purchase.

The concert hall's aging striplight system was demanding an increasingly high level of maintenance resources. Appropriate light bulbs are no longer being manufactured, and the cost of upkeep kept mounting, so the striplights were replaced by LED luminaires. Says Justin Dunlap, a house electrician for the Arlene Schnitzer Concert Hall: "I would predict that we'll see an 85 to 95 percent consumption drop from the on-stage fixtures, not counting the front-of-house lighting."



Justin Dunlap, PCPA house electrician, and Jason Blackwell, PCPA Operations Manager, show off the energy-saving lights in the Arlene Schnitzer Concert Hall.

Metro Central solid waste transfer station turns up the lights

Metro's contract operator for the Metro Central Transfer Station, Recology Oregon Recovery, undertook a significant lighting upgrade at the 180,000-square-foot facility in Northwest Portland. This efficiency improvement was one of several sustainability measures proposed by Recology; those measures were a key factor in Metro awarding the operating contract to the firm. Christenson Electric, Recology's contractor, removed 211 metal halide fixtures. These old fixtures – 80 400-watt and 131 1,000-watt units – were replaced with 211 234-watt and 277-watt four-lamp fluorescent fixtures. The energy savings is anticipated to be 210,840 kilowatt hours annually, reducing the overall facility electricity consumption by approximately 28 percent and improving lighting in the facility.

For more information, contact Bruce Philbrick, transfer station operations manager, at Bruce.Philbrick@oregonmetro.gov.



Upgraded lighting at Metro Central Transfer Station will use 28 percent less energy and provide better light for workers, especially during early morning shifts.

Oregon Convention Center: practicing sustainability

Plaza Palooza summer concert series aimed to be a “zero waste” event

In summer 2012, the Oregon Convention Center launched the Plaza Palooza outdoor concert series with three goals in mind: boost revenues, enhance neighborhood livability and maximize sustainability.



Demonstrating its commitment to sustainability, the series focused on showcasing local musical talent, providing a unique opportunity for bands to increase their visibility among new audiences. Nearby Hoyt Street Station Community Café provided concessions through pacificwild catering, whose mission includes sourcing local, seasonal and sustainably-harvested ingredients. Menu items highlighted Pacific Northwest-inspired fare, including Oregon beers, wines and distilled spirits, as well as the bounty of nearby farms and fields, and were served on compostable plates and utensils.

The facility established a zero-waste goal at the series' onset and, through a partnership with its recycling/composting contractor, Recology, achieved an average diversion rate of 79 percent. Thanks to volunteers who staffed three recycling and composting stations, the majority of refuse was correctly sorted and disposed, contributing to these high rates of diversion.

For more information, contact Matthew Uchtman, Oregon Convention Center operations manager, at MatthewUchtman@oregoncc.org.



Concertgoers enjoy a live show at the plaza across from the Oregon Convention Center.



pacificwild catering wins second place Portland BEST Award for food purchasing program



pacificwild catering was created by ARAMARK in 2011 as an exclusive brand for the Metropolitan Exposition & Recreation Commission (MERC) visitor venues: The Oregon Convention Center, the Portland Center for the Performing Arts and the Portland Expo Center. Over the past 12 years, pacificwild catering (operating with MERC venues previously as ARAMARK) has consistently purchased from local businesses within Metro's FOTA (First Opportunity Target Area), which is the 44-block area surrounding the Oregon Convention Center. This represents approximately \$1.8 million annually in food and beverage spending, which supports the local economy. When in season, 70 percent of produce purchases are local. pacificwild's efforts earned them second place in the Portland Businesses for an Environmentally Sustainable Tomorrow (BEST) Sustainable Food Systems category.

When planning menus, pacificwild features as many local and seasonal products as possible and instructs produce vendors to provide local produce as their primary choice. Organic produce is selected when it is available, cost effective, or requested by a client.

Vendors that provide food to pacificwild venues include:

- Pacific Coast Fruit Company – Food Alliance Certified (.5 miles from the Oregon Convention Center)
- Charlie's Produce (10.9 miles)
- Fulton Provision Company – Food Alliance Certified (12.28 miles)
- Marsee Foods (12.28 miles)
- Tula Baking (3.44 miles)
- Portland French Bakery (9.9 miles)
- Portland Roasting Coffee Company (.7 miles)
- Sunshine Dairy Foods (1.17 miles)
- More than 30 locally distilled spirits, Oregon wines and local craft beers served at Stir Lounge at the Oregon Convention Center, West Delta Bar & Grill at the Expo Center and Art Bar at Portland Center for the Performing Arts.



For more information, visit www.oregoncc.org/pacificwildcatering/ or contact Brendan Coffey, resident district manager, pacificwild catering, BrendanCoffey@Oregoncc.org.

Read more about the Oregon Convention Center's sustainability program at www.oregoncc.org/sustainability/.

Expo Center more than triples recycling and composting in two years

Over the past two years, the staff at the Portland Expo Center has made it a priority to recycle and compost an increasing amount of show waste. As of the first quarter 2012, Expo had increased its recovery rate from 13 percent in 2010 to 44 percent.

The main challenge has been educating exhibitors, patrons and show producers. Luckily, Expo's clients are willing to help the venue walk its talk on sustainability efforts. Two shows in particular led the pack: The Columbia Alpaca Breeders Association diverted more than 17 tons of materials from the landfill – 98 percent of waste generated at the show. Another standout was Food Services of America, which increased its recovery rate from 17 percent in 2011 to 88 percent in 2012, and donated more than three tons of food to local food banks and charities.

For more information, please contact Jim Caldwell, Portland Expo Center operations manager at jimcaldwell@expoctr.org.



Staff at the Portland Expo Center has made it a priority to recycle and compost an increasing amount of show waste.

Metro employees being green at work



Toxics Reduction Specialist Sabrina Gogol installs a native plant garden at Metro South hazardous waste facility.



Oregon Zoo employees Philip Fensterer, Asaba Mukobi and Jeb Barsh provide support to coworkers for bike commuting.



Metro Regional Center Building Services employee Thomas Thornton shows off the fleet bike.



Metro Regional Center Green Team members Resa Thomason and Elizabeth Cole show off their "Recycling 101" staff presentation materials.



Former Metro Regional Center Green Team Chair Corie Harlan and Parks Planner Rod Wojtanik stand by the new habitat-friendly planters at the Metro Regional Center.



Portland Expo Center employee Ron Macomber pulls weeds by hand instead of using pesticides.

STATUS OF PRIORITY SUSTAINABILITY PLAN PROJECTS as of October 2012

Key: ✓ Completed
● In progress

Strategies and actions are color-coded to the Sustainability Plan pages 28-49.

http://library.oregonmetro.gov/files//metro_sustainability_plan_final_2010.pdf

Sustainability program actions

Strategy	Sustainability Plan action and reference number	Status
Program Strategy 1: Integrate accountability into implementation of the sustainability plan.	Program Action 1.1: Create and adopt an implementation process for the Sustainability Plan.	✓ Completed 2011
	Program Action 1.2: Integrate sustainability goals and desired outcomes into PACE and other performance measures for Metro employees, starting with managers.	✓ Completed 2012
Program Strategy 2: Create a comprehensive sustainability training program for Metro employees.	Program Action 2.1: Provide basic sustainability training to all Metro employees.	● In progress
Program Strategy 3: Build funding and staff capacity to implement sustainability plan.	Program Action 3.1: Create a comprehensive funding strategy for sustainability projects, including sustainability requirements for new capital assets. (Also supports GHG Action 5.1 and Water action 6.1 regarding project funding.)	● In progress
	Program Action 3.1: Identify and address staff capacity needed to coordinate site-specific sustainability activities.	● In progress
Program Strategy 4: Create policies and procedures to support sustainability plan and goals.	Program Action 4.1: Develop and adopt a sustainable procurement policy as directed by Metro Code, "Sustainable Procurement Program."	✓ Completed 2012
	Program Action 4.2: Adopt a Metro-wide green building policy to set standards based on LEED for new construction and operations of existing buildings.	✓ Completed 2011
	Implement green building policy; complete assessments for solar, ecoroof, LEED-EBOM and habitat feasibility.	● In progress
Program Strategy 5: Update sustainability goals and interim targets on a regular basis.	Program Action 5.2: Create new sustainability goals to address sustainability gaps of social equity and economic aspects of Metro's operations.	● In progress
Program Strategy 6: Track progress of sustainability plan implementation and impact on goal areas.	Program Action 6.1: Develop an ongoing tracking and monitoring system for all five goal areas. Include: ✓ Utility Manager database (electricity, gas, water) ✓ MSDS database and chemical inventory update ● Recycling database	● In progress
	Program Action 6.2: Report annually on progress in five goal areas, and on sustainability projects completed each year.	✓ Completed 2011, 2012

Sustainability goal actions

Strategy	Sustainability Plan action and reference number	Status
GHG Strategy 1: Reduce GHG emissions from building operations, maintenance and siting through energy efficiency and resource conservation.	GHG Action 1.1: Audit buildings for energy efficiency opportunities and develop recommendations for an energy efficiency plan specific to each site. GHG Action 1.2: Implement energy efficiency plans and develop supporting policies for each site audited. GHG Action 1.3: Identify and evaluate options for reducing GHG emissions from the St. Johns Landfill, particularly the flaring of methane and resulting carbon dioxide emissions.	✓ Completed 2012 ● In progress ✓ Completed 2012
GHG Strategy 3: Reduce GHG emissions related to supply chain and service providers through contracts and procurement.	GHG Action 3.1: Include energy efficiency criteria in all vendor and facility service and equipment contracts.	● In progress
Toxics Strategy 1: Complete and update Metro's comprehensive chemical product inventory.	Toxics Action 1.1: Establish process for ongoing tracking and inventory of chemicals and products that contain toxics in use at Metro.	✓ Completed 2012
Toxics Strategy 2: Reduce and/or eliminate the most toxic products and materials first.	Toxics Action 2.1: Identify the most toxic products in Metro's inventory and replace them with less-toxic alternatives. Toxics Action 2.2: Reduce the use of herbicides and pesticides in all Metro operations. Create and implement an Integrated Pest Management (IPM) policy for all Metro properties.	● In progress ● In progress
Toxics Strategy 3: Identify and implement methods for procurement of less-toxic goods and materials through purchasing policies and procedures.	Toxics Action 3.1: Reduce purchase of toxic products by requiring or requesting least-toxic options from contractors and suppliers in bids and RFPs.	● In progress
Waste strategy 3: Improve and expand recycling programs at Metro facilities and properties.	Waste action 3.1: Meet Business Recycling Requirements at all Metro facilities.	✓ Completed 2011
Waste strategy 7: Improve tracking and reporting on waste generation and recycling from haulers, as well as internal tracking by department.	Waste action 7.1: Track waste generation and recycling data for all Metro locations.	✓ Completed 2012
Water Strategy 1: Assess and prioritize water conservation opportunities on all Metro properties.	Water action 1.1: Audit water usage at all Metro locations that have not had a recent water audit to develop recommendations for water conservation strategies specific to each site.	● In progress (Complete at MRC, Zoo, OCC, Expo)
Water Strategy 2: Reduce water usage through improvements to water use prevention and water efficiency, starting with biggest water users.	Water action 2.1: Ensure implementation of water conservation projects identified in the Zoo Master Plan. Water action 2.2: Integrate sustainable operations and water conservation requirements into operations contract for Glendoveer Golf Course.	✓ Completed 2011 (Penguin filtration) ● In progress

Strategy	Sustainability Plan action and reference number	Status
	Water action 2.4: Retrofit existing buildings' water fixtures and equipment to high-efficiency where highest opportunity areas are found in water audits. Water action 2.5: Create requirement that all water fixtures and equipment purchases be water efficient.	<ul style="list-style-type: none"> ● In progress ✓ Completed 2011 (See green building policy)
Water Strategy 4: Establish an ongoing tracking and reporting system for all water usage at Metro properties.	Water action 4.1 Create ongoing tracking system for all water uses at Metro locations. Include on-site water sources such as wells.	✓ Completed 2011 (Utility Manager database)
Habitat Strategy 1: Assess and prioritize habitat and stormwater improvement opportunities on all Metro properties.	Habitat action 1.1: Conduct habitat and stormwater site assessments at all Metro properties, especially developed properties. Use assessments to develop habitat and stormwater improvement site plans.	● In progress
Habitat Strategy 2: Improve habitat value and ecological function of, and reduce stormwater runoff from all Metro properties.	Habitat action 2.3 (repeat of Toxics action 2.2): Reduce the use of herbicides and pesticides in all Metro operations. Create and implement an Integrated Pest Management (IPM) policy for all Metro properties.	● In progress

ABOUT THE METRO SUSTAINABILITY PROGRAM

The internal Sustainability Program is housed in the Metro Sustainability Center, a department whose focus areas include protection of natural areas, development of regional parks, waste prevention, recycling and toxics reduction programs, and promotion of sustainable living practices for residents throughout the Metro region.

Sustainability steering committee

Oversight and accountability for implementation of the Metro Sustainability Plan is provided by a steering committee of representatives from the major facilities in Metro's operations.

- Jason Blackwell, operations manager, Portland Center for the Performing Arts
- Dan Kromer, parks and visitor services manager, Parks & Environmental Services
- Ivan Ratcliff, interim guest services manager, Oregon Zoo
- Bruce Philbrick, transfer station operations manager, Parks & Environmental Services
- Rory Greenfield, Metro Regional Center operations manager, Parks & Environmental Services
- Matthew Uchtman, operations manager, Oregon Convention Center

Green teams

In addition to the work of the sustainability steering committee and the facility operations managers, four green teams support implementation of sustainable practices in Metro workplaces.

- Oregon Zoo green team FY 11-12 chair: Tyson Stoianoff
- Metro Regional Center green team FY 11-12 chair: Corie Harlan
- Oregon Convention Center green team FY 11-12 chair: Brittin Witzenburg
- Solid Waste Operations green team FY 11-12 chair: Jim Quinn

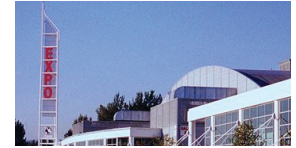
Special thanks to Aidan Gronauer in Metro's Sustainability Center for assistance with management of the Utility Manager database and data analysis for this report.

For more information about Metro's Sustainability Program and this report, contact:

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Portland, OR 97232
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molly.chidsey@oregonmetro.gov
www.oregonmetro.gov/greenmetro

APPENDIX - available by request

www.oregonmetro.gov/greenmetro



greenMetro

Sustainability report for
operations at Metro facilities

November 2012

About Metro

Clean air and clean water do not stop at city limits or county lines. Neither does the need for jobs, a thriving economy, and sustainable transportation and living choices for people and businesses in the region. Voters have asked Metro to help with the challenges and opportunities that affect the 25 cities and three counties in the Portland metropolitan area.

A regional approach simply makes sense when it comes to making decisions about how the region grows. Metro works with communities to support a resilient economy, keep nature close by and respond to a changing climate. Together we're making a great place, now and for generations to come.

Stay in touch with news, stories and things to do.

www.oregonmetro.gov/connect

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Auditor

Suzanne Flynn

METRO ENERGY EFFICIENCY PROJECTS COMPLETED

Energy Trust of Oregon Existing Buildings Program, July 1, 2011 to present

Site name	Completion date	Measure(s)	Annual Kwh savings	Annual therms savings	Est. project cost * **	Incentive amount from ETO
Keller Auditorium (PCPA)	12/5/2011	Gas-fired condensing boiler	-	8,760	\$194,472	\$16,000
Arlene Schnitzer Concert Hall (PCPA)	BE15637 in progress		-	-	-	-
	2/21/2012	Custom LED	94,937	-	\$42,156	\$22,132
	8/30/2012	Custom Chillers	86,209	-	\$91,342	\$24,660
EXPO Center	7/14/2011	Lighting & Occ. Sensors	29,333	-	\$13,889	\$4,987
Metro Regional Center	10/7/2011	Custom Demand Control Ventilation	152,491	211	\$128,280	\$38,344
	11/17/2011	Custom Lighting & Occ. Sensors	140,856	-	\$59,963	\$33,780
	12/15/2011	Timer to control DHW recirculation	1,205	-	\$1,035	\$301
	6/19/2012	Custom Building Controls-CO sensors in garage	345,968	-	\$30,210	\$18,126
	8/16/2012	Lighting & Occ. Sensors	23,358	-	\$14,215	\$5,606
	BE19204 in progress		-	-	-	-
Oregon Convention Center	7/21/2011	Custom Lighting	1,918,613	-	\$750,403	\$259,733
	11/3/2011	Grocer Refrigeration Case	5,616	-	\$4,047	\$1,404
	12/22/2011	Custom Building Controls	17,569	-	\$2,400	\$1,440
	BE17549 in progress	Custom Building Controls	164,477	14,461	\$92,500	\$46,250
Metro Latex Paint Recycling	No projects to date					
Metro South Transfer Station	No projects to date					
Metro Central Transfer Station	1/5/2012	T5HO4 lamp fixtures	550,805	-	\$103,390	\$48,741
Oregon Zoo	9/21/2012	NB Program: Design & Custom Track Assistance	10,500	-	-	\$6,320.00
Totals			3,541,937	23,432	\$1,528,302	\$527,824

* Project costs listed in this spreadsheet are estimates only from ETO's project records. Real project costs should always be verified through Metro's accounting records system.

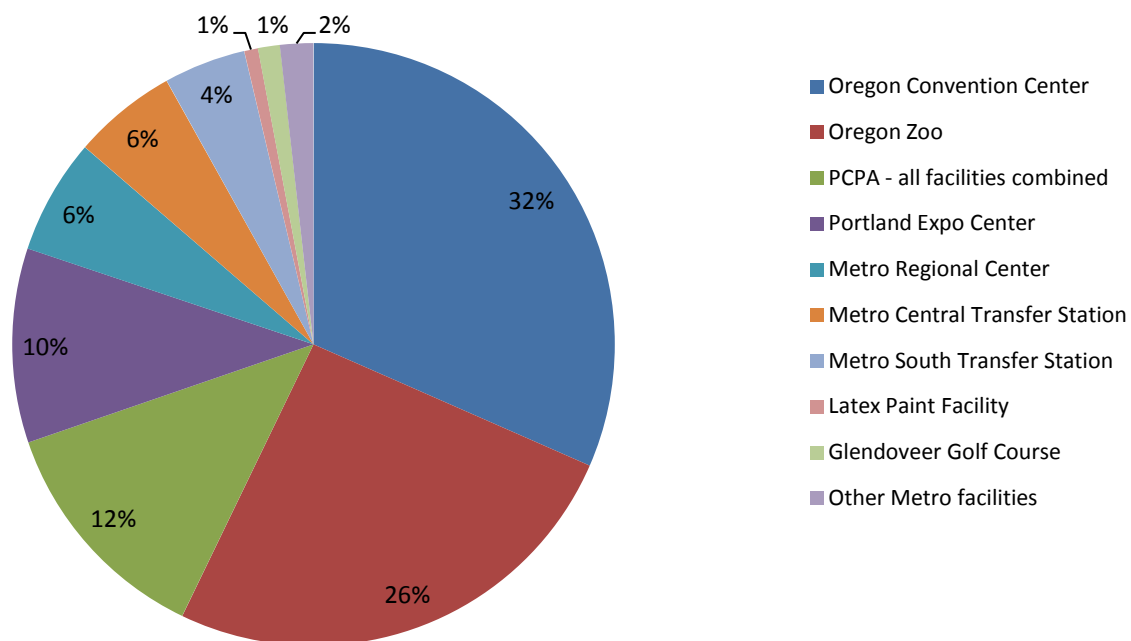
** Return on Investment (ROI) years and projected savings or cost avoidance from energy efficiency projects available from facility managers or Molly Chidsey, either as estimated from ETO during project planning phase or actuals.

List of completed projects does not include a small walkway LED lighting project completed at Metro South Household Hazardous Waste facility in 2011, as the project did not receive any incentive funding from the Energy Trust of Oregon.

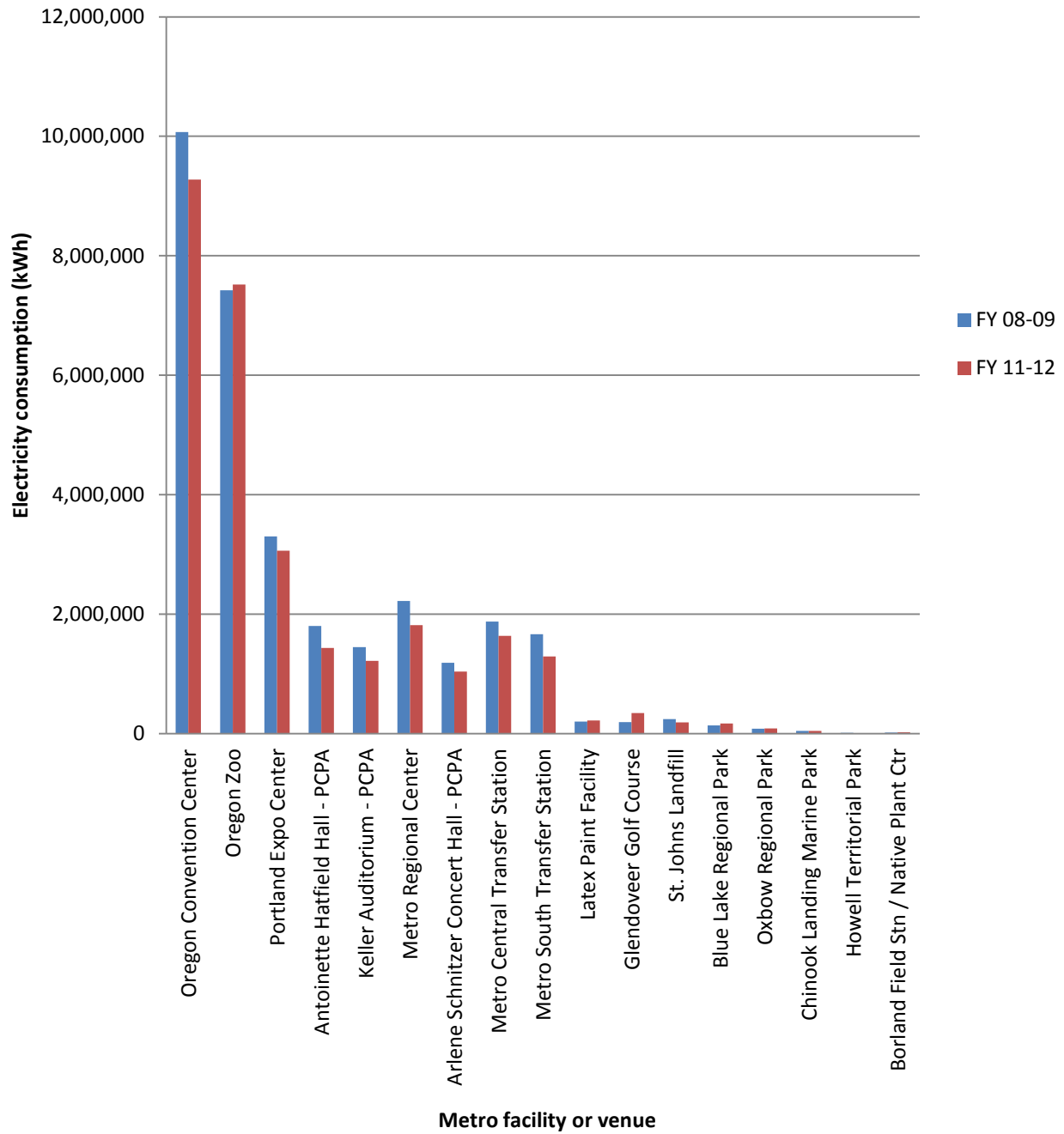
ELECTRICITY CONSUMPTION (KWH)

Site	FY 08-09	FY 09-10	FY 10-11	FY 11-12	% change over baseline
Oregon Convention Center	10,070,371	10,690,641	10,584,885	9,277,110	-8%
Oregon Zoo	7,420,929	6,943,183	7,187,460	7,518,906	1%
Portland Expo Center	3,300,198	2,995,153	2,874,039	3,062,346	-7%
Antoinette Hatfield Hall - PCPA	1,803,642	1,783,113	1,540,820	1,434,208	-20%
Keller Auditorium - PCPA	1,448,495	1,276,462	1,203,401	1,216,614	-16%
Metro Regional Center	2,220,226	2,222,805	2,183,565	1,818,167	-18%
Arlene Schnitzer Concert Hall - PCPA	1,186,160	1,124,452	1,079,901	1,037,174	-13%
Metro Central Transfer Station	1,878,316	1,919,756	1,805,321	1,637,252	-13%
Metro South Transfer Station	1,662,963	1,670,860	1,336,227	1,292,748	-22%
Latex Paint Facility	200,103	198,694	214,520	218,360	9%
Glendoveer Golf Course	193,122	359,830	338,388	343,885	78%
St. Johns Landfill	243,105	240,321	216,857	186,176	-23%
Blue Lake Regional Park	138,886	156,714	165,040	172,201	24%
Oxbow Regional Park	80,580	77,186	91,846	87,966	9%
Chinook Landing Marine Park	46,390	46,509	46,865	47,101	2%
Howell Territorial Park	14,017	13,425	7,518	4,955	-65%
Borland Field Stn/Native Plant Center	16,825	20,821	22,503	22,594	34%
Cooper Mountain Nature Park	2,686	0	0	0	
Graham Oaks Park	0	291	1,417	1,888	
Annual totals kWh	31,927,014	31,740,216	30,900,573	29,379,651	-8%

FY 11-12 electricity consumption (kWh) at Metro facilities



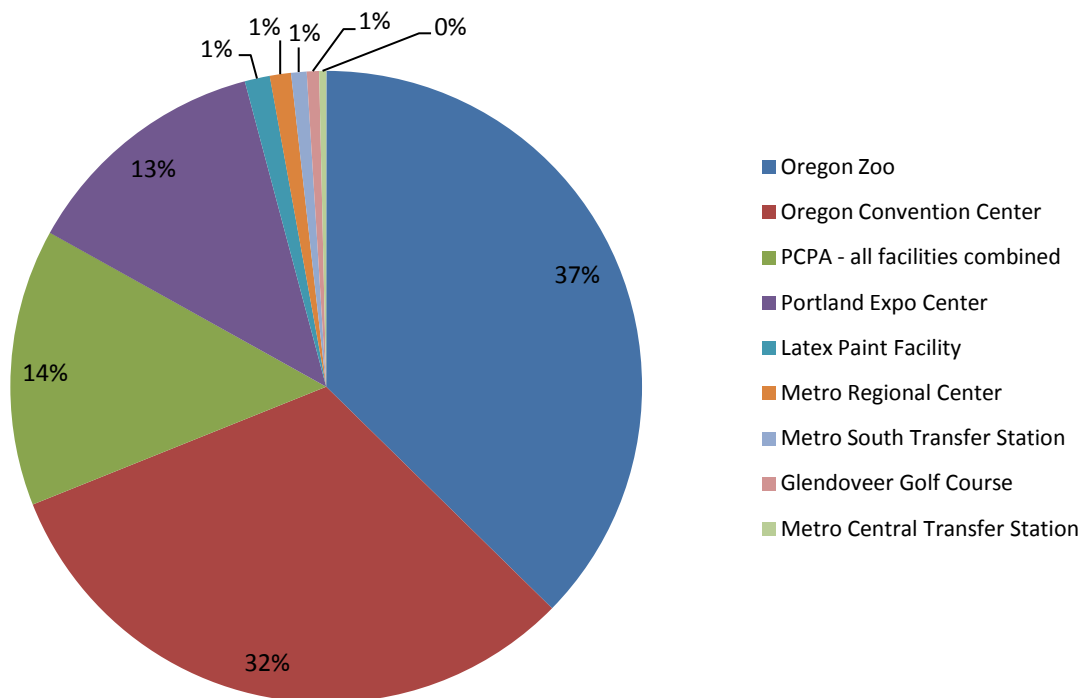
Electricity usage FY 11-12 compared with FY 08-09 baseline (kWh)



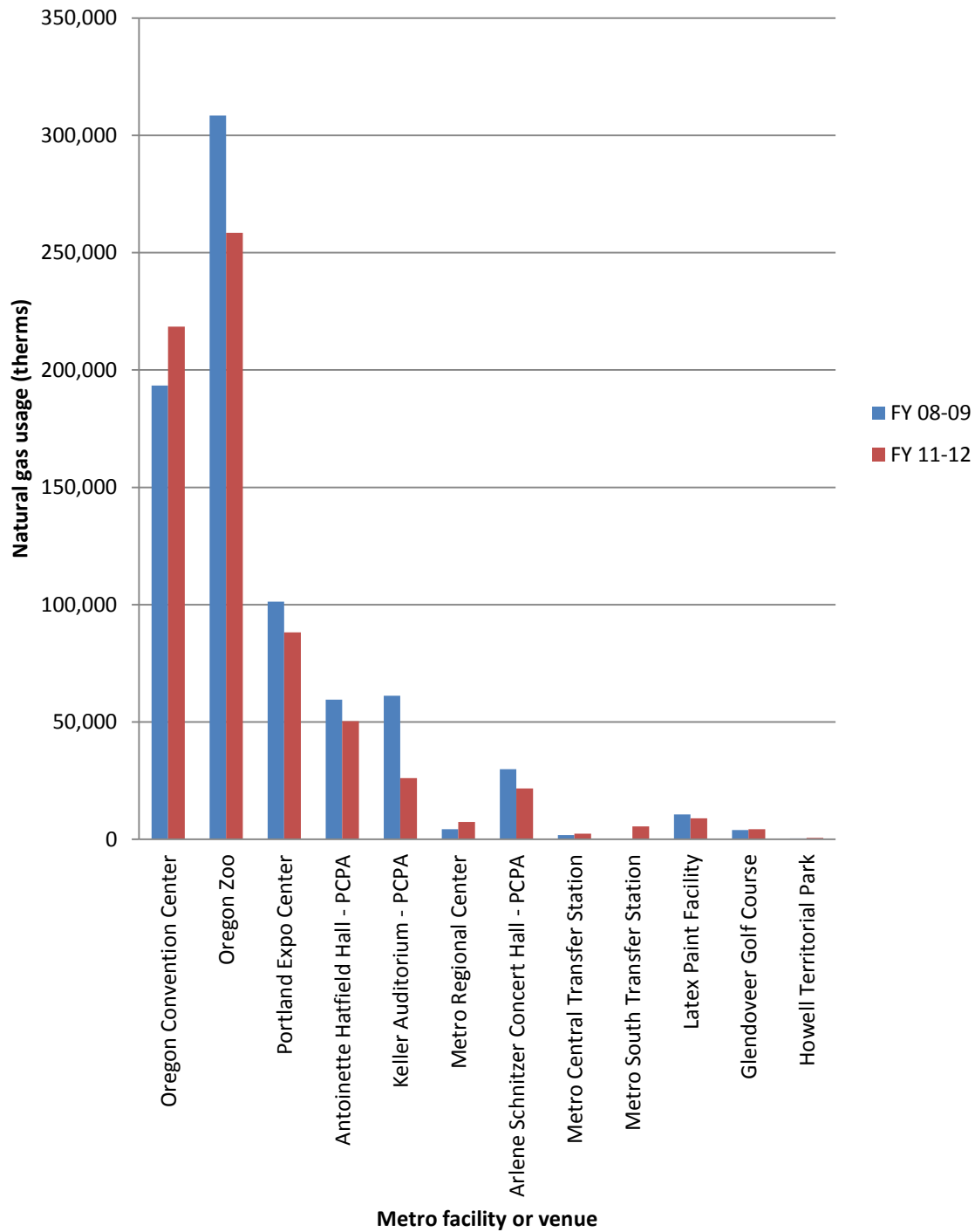
NATURAL GAS CONSUMPTION, THERMS

Site	FY 08-09	FY 09-10	FY 10-11	FY 11-12	% change over baseline
Oregon Convention Center	193,433	177,651	218,199	218,478	13%
Oregon Zoo	308,392	297,202	345,670	258,480	-16%
Portland Expo Center	101,346	80,225	87,518	88,259	-13%
Antoinette Hatfield Hall - PCPA	59,581	64,237	53,220	50,323	-16%
Keller Auditorium - PCPA	61,138	34,249	36,723	26,096	-57%
Metro Regional Center	4,337	3,842	5,049	7,470	72%
Arlene Schnitzer Concert Hall - PCPA	29,924	28,654	25,154	21,704	-27%
Metro Central Transfer Station	1,836	1,670	2,461	2,469	34%
Metro South Transfer Station	0	0	6,490	5,519	
Latex Paint Facility	10,586	7,750	11,534	8,975	-15%
Glendoveer Golf Course	4,015	4,144	4,364	4,346	8%
Howell Territorial Park	432	382	639	633	47%
Annual totals therms	775,020	700,006	797,021	692,752	-11%

FY 11-12 natural gas consumption (therms)



Natural gas usage FY 11-12 compared with FY 08-09 baseline (therms)

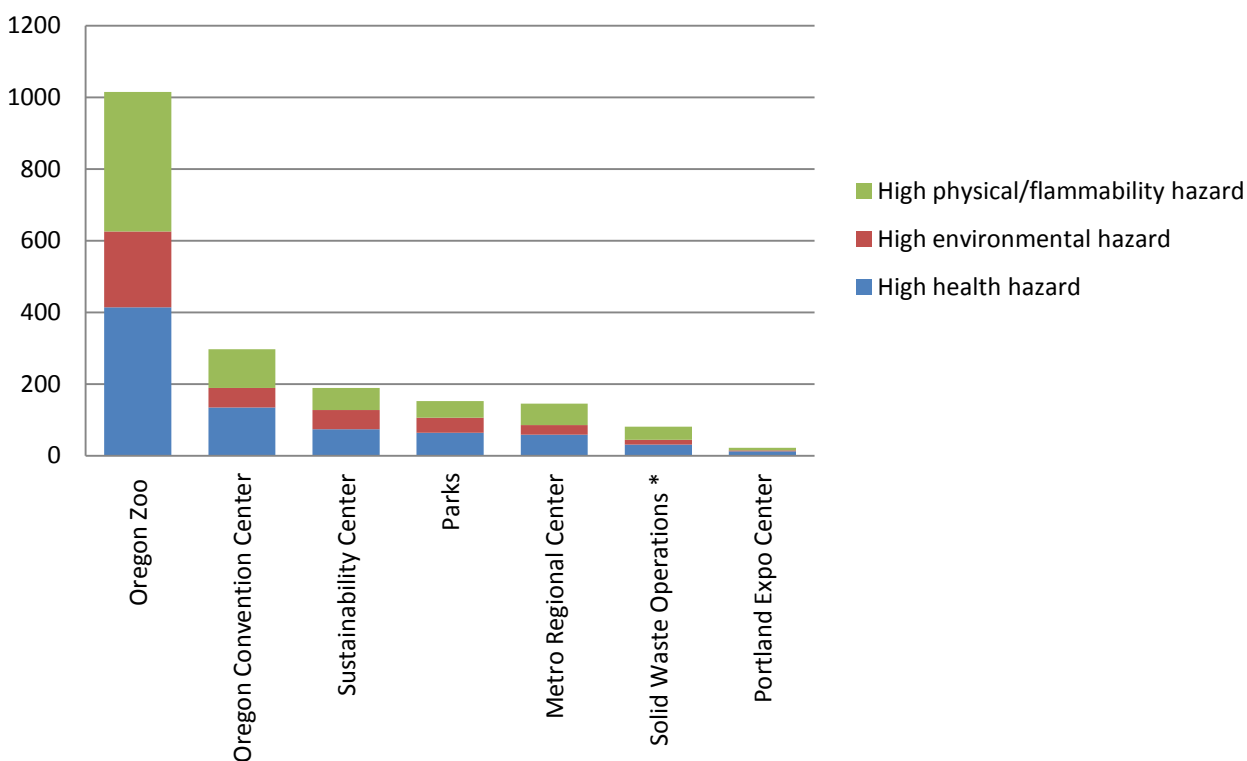


TOXICS, MEASURED BY NUMBER OF PRODUCTS WITH A HIGH HAZARD RATING IN METRO'S MSDS DATABASE

	Total products in inventory	High health hazard	High environmental hazard	High physical/flammability hazard	Total products with high hazard rating ¹	% with high hazard rating
Oregon Zoo	1,086	414	212	389	547	50%
Oregon Convention Center	249	135	54	108	159	64%
Sustainability Center	177	74	53	62	103	58%
Parks	135	64	42	46	87	64%
Metro Regional Center	163	59	26	60	87	53%
Solid Waste Operations *	89	31	13	37	41	46%
Portland Expo Center	26	12	3	7	12	46%
Totals	1,925	789	403	709	1,036	54%

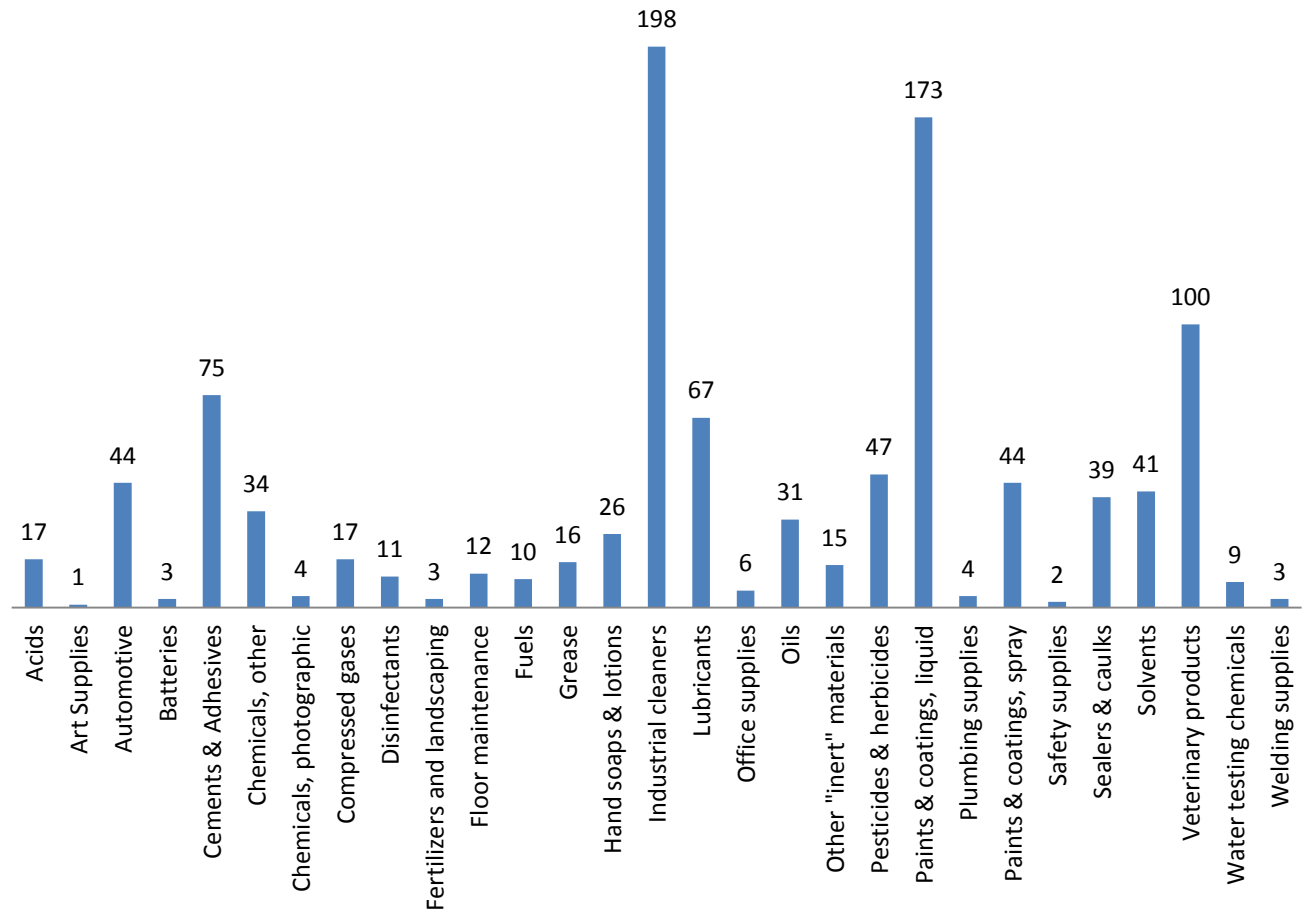
*Solid Waste Operations includes Metro Central, Metro South, St. Johns Landfill and MetroPaint.

Number of products with high hazard rating, by location (FY 11-12)



¹ About hazard ratings in Metro's MSDS database, hosted by the Chemical Risk Information System at OHSU: Health ratings are based on criteria including the constituent's acute toxicity, irritant properties, and potential to cause cancer or produce developmental or reproductive toxicity. Environmental ratings are based on the constituent's toxicity to aquatic organisms and other indicator species, persistence and tendency to accumulate in the environment, and potential to damage the ozone layer. Physical hazard ratings consider the constituent's flammability risk level and potential for reactivity. A score of 3 indicates high hazard, 2 indicates intermediate hazard and 1 indicates low hazard.

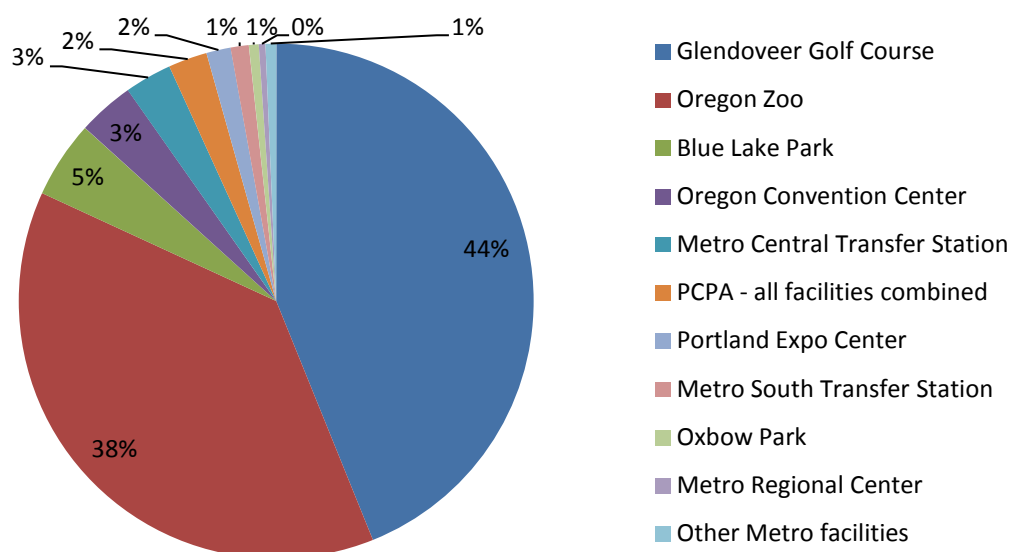
Number of products with high hazard rating, by category (FY 11-12)



WATER CONSUMPTION (CCF)

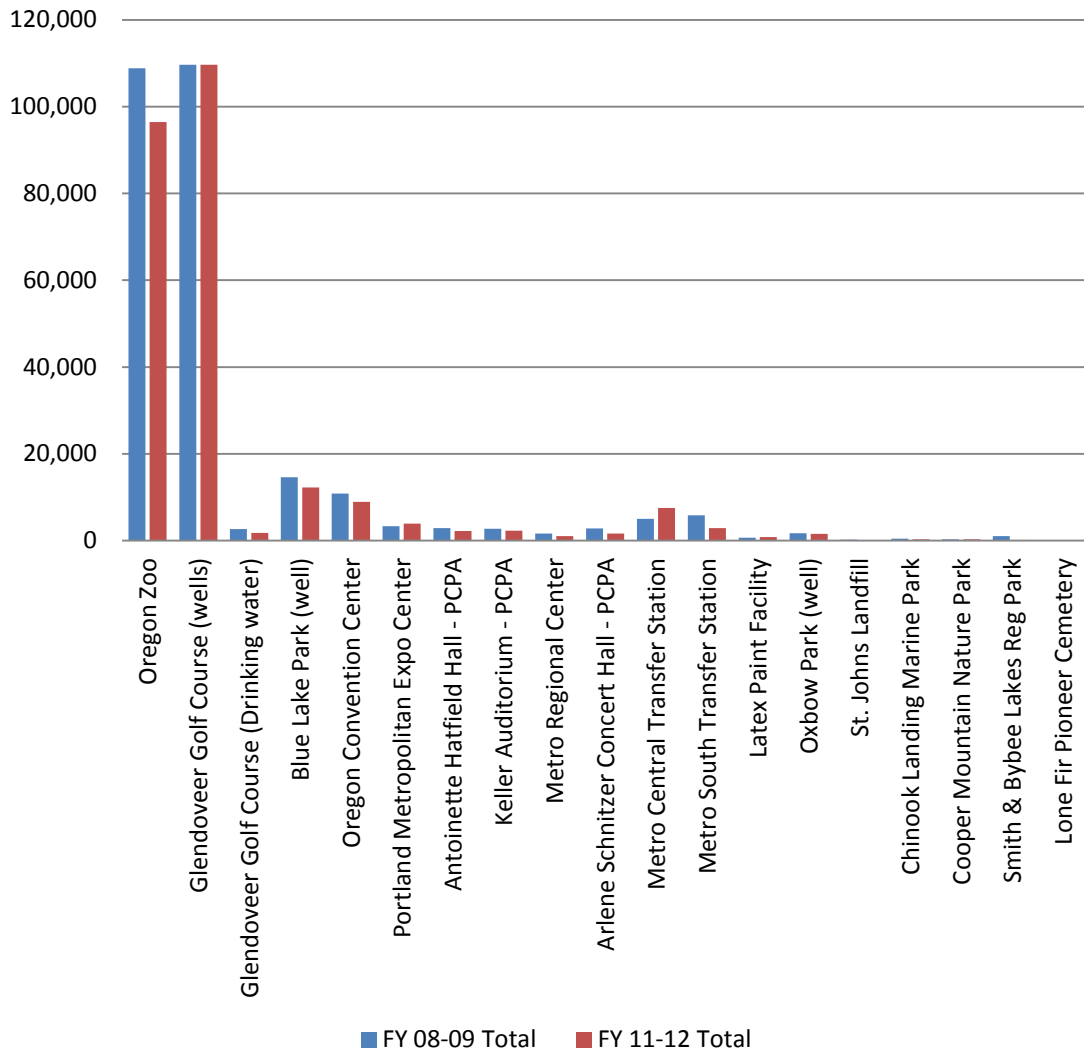
Site	FY 08-09 total	FY 09-10 total	FY 10-11 total	FY 11-12 total	% change over baseline (FY08-09)
Oregon Zoo	108,828	95,586	87,341	96,477	-11%
Glendoveer Golf Course (wells) ²	109,626	109,626	109,626	109,626	0%
Glendoveer Golf Course (drinking water)	2,633	2,108	1,933	1,778	-32%
Blue Lake Park (well)	14,639	10,194	9,995	12,277	-16%
Oregon Convention Center	10,818	11,016	9,113	8,963	-17%
Portland Metropolitan Expo Center	3,356	3,474	2,837	3,895	16%
Antoinette Hatfield Hall - PCPA	2,850	2,744	2,777	2,254	-21%
Keller Auditorium - PCPA	2,721	2,222	1,964	2,265	-17%
Metro Regional Center	1,662	1,790	1,622	1,055	-37%
Arlene Schnitzer Concert Hall - PCPA	2,823	1,997	2,199	1,649	-42%
Metro Central Transfer Station	4,995	4,283	4,169	7,532	51%
Metro South Transfer Station	5,800	11,192	3,420	2,882	-50%
Latex Paint Facility	668	740	608	784	17%
Oxbow Park (well)	1,671	2,352	1,806	1,559	-7%
St. Johns Landfill	213	121	264	66	-69%
Chinook Landing Marine Park	412	543	538	275	-33%
Cooper Mountain Nature Park	312	918	584	313	0%
Smith & Bybee Lakes Regional Park	1,063	2,203	638	180	-83%
Lone Fir Pioneer Cemetery	40	26	31	73	83%
Grand total (including well water)	275,131	263,134	241,464	253,903	-8%

FY 11-12 water usage (CCF)



² Glendoveer Golf Course irrigation estimates from FY 08-09 through FY10-11 were significantly underestimated (by about 33,400 CCF annually). A flow meter was added to the most-used well on the property in 2011 so FY11-12 usage is a more accurate number. Baseline well water usages for this facility were adjusted to reflect the FY11-12 actuals as a more accurate estimate of previous well water usage for irrigation.

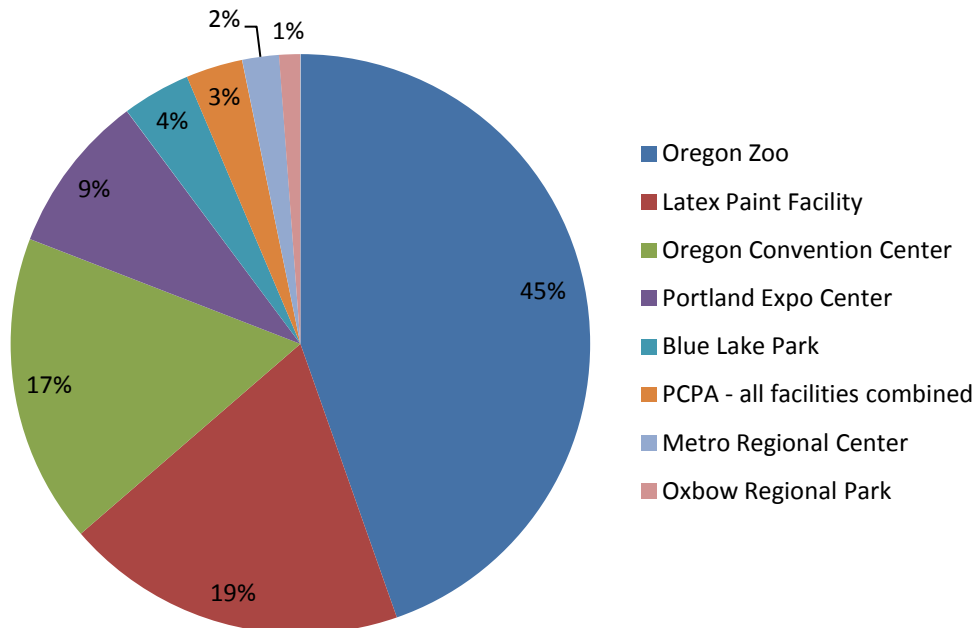
Water usage FY 11-12 compared with FY 08-09 baseline (CCF)



WASTE GENERATION AND RECYCLING

	Total waste generated	Recycled	Total waste generated (tons)	% Recycled	Recycling diversion % change over baseline (2008)	Waste generation % change over baseline (2008)
Recycling	2008	2008	FY11-12	FY11-12		
Metro Regional Center	76	62%	67.2	56.9%	-5.1%	-12%
Oregon Convention Center	472	55%	568.47	69.0%	14.3%	20%
Portland Expo Center	398	13%	293.85	58.1%	45.1%	-26%
Latex Paint Facility ³	468	29%	627.89	14.7%	-14.3%	34%
Oregon Zoo	1287	69%	1470.74	78.8%	9.8%	14%
Antoinette Hatfield Hall - PCPA	N/A	N/A	25.17	59.2%	N/A ⁴	N/A
Arlene Schnitzer Concert Hall - PCPA	N/A	N/A	21.88	15.4%	N/A	N/A
Keller Auditorium - PCPA	N/A	N/A	57.36	42.9%	N/A	N/A
Oxbow Regional Park	N/A	N/A	38.95	8.8%	N/A	N/A
Blue Lake Park			125.78	1.8%	N/A	N/A
Electronics (all facilities)			5.48		N/A	N/A
Totals	2,701	51.1%	3,171.5	59.9%		

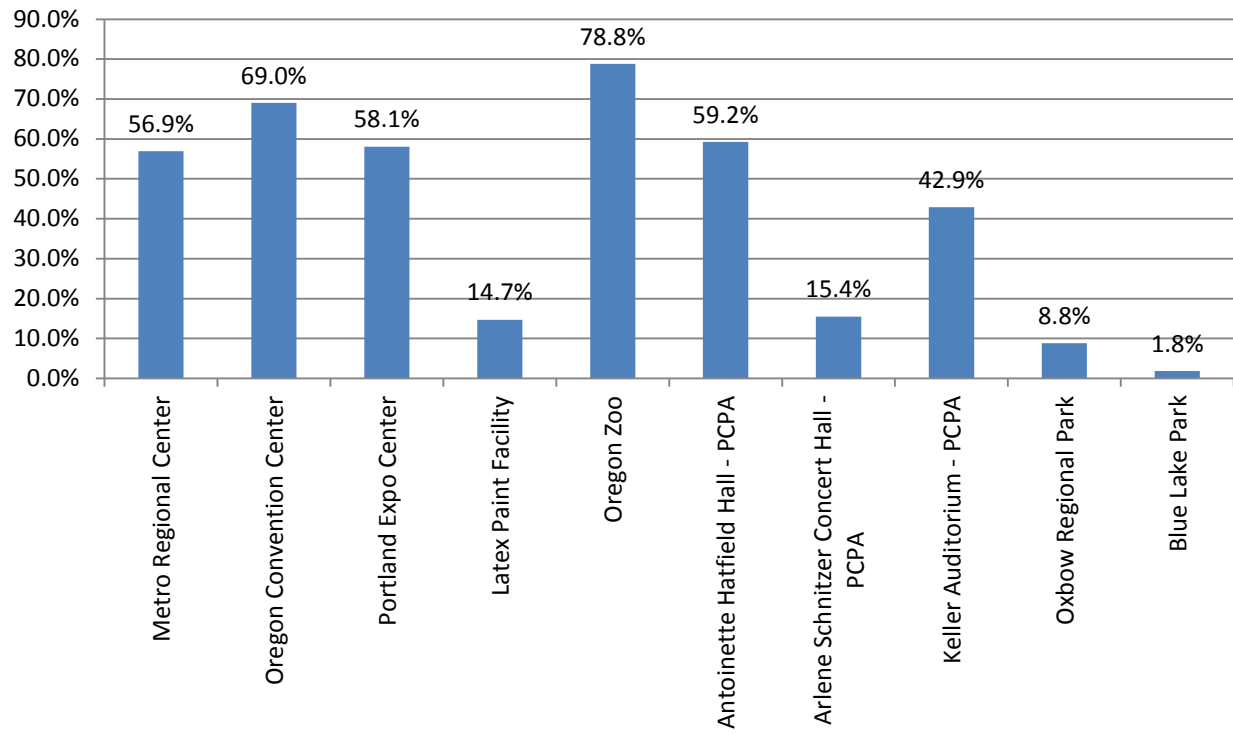
FY 11-12 total waste generation (waste plus recycling, tons)



³ PaintCare, a paint recycling program supported by paint manufacturers, launched in July 2010 and MetroPaint is the recycler for paint recovered in this program statewide. Due to significant increases in volumes of paint recycled at the facility in FY11-12 resulting from this program, the waste generation from the facility has also increased due to higher volumes of used paint cans and other wastes collected for processing. The MetroPaint recycling numbers do not include the paint itself, but does include paint cans.

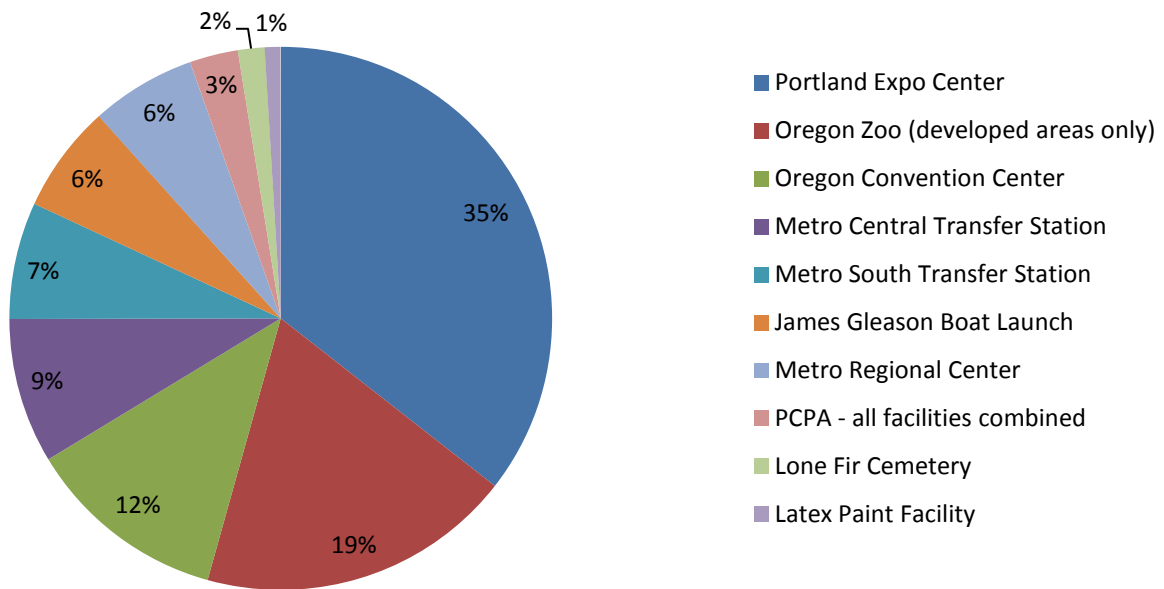
⁴ N/A indicates that no data available for 2008 baseline year from which a percent change can be calculated.

FY 11-12 recycling recovery rate at Metro facilities



STORMWATER & HABITAT MEASURE: EFFECTIVE IMPERVIOUS AREA

FY 11-12 effective impervious area (square feet)



FY 11-12 effective impervious area (EIA) (sf)

