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Sustainability Report FY 2014-2015

October 30, 2015

greenMetro

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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 providing services, operating venues and 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.

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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. Metro established a baseline for these goal areas in 2008 when it established the Sustainability Program.

7	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.
Ŷ	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 and past years' progress reports are available online at <u>www.oregonmetro.gov/greenmetro</u>.

In addition to Metro's goals for internal operations, Metro works with communities, businesses and residents in the Portland metropolitan area to achieve these outcomes regionally and chart a thoughtful course for the future.

Learn more at <u>oregonmetro.gov</u>.

Metro Value of Sustainability

We are leaders in demonstrating resource use and protection in a manner that enables people to meet current needs without compromising the needs of future generations, and while balancing the needs of the economy, environment, and society.

SUSTAINABILITY SCORECARD



Note: EIA baseline and subsequent years' data is updated to include Blue Lake Park and Glendoveer Golf Course

FY 2014-15 METRO INTERNAL OPERATIONS SUSTAINABILITY SCORECARD

TOXICS INDICATORS: Original and new methodology



Original methodology: Calculates the percentage of Metro product inventory rated high hazard for environmental, physical or wildlife toxicity.



New methodology: Calculates percentage of inventory rated high hazard in any one of the following expanded list of categories: environmental, physical, wildlife, persistent, bioaccumulative or inherently toxic.



FY 2014–15 METRO INTERNAL OPERATIONS SUSTAINABILITY SCORECARD















www.oregonmetro.gov/greenmetro

MT CO.,e: Metric tons carbon dioxide equivalent CCF: Hundred cubic feet, equivalent to 748 gallons

EIA: Effective impervious area

Note: EIA baseline and subsequent years' data is updated to include Blue Lake Park and Glendoveer Golf Course

PART 1: KEY ACCOMPLISHMENTS

OREGN Oregon Convention Center

Most ambitious rooftop convention center solar array to date at the Oregon Convention Center

In FY14-15, the Oregon Convention Center issued an RFP for design and installation of what is anticipated to be the largest solar array on a convention center in the U.S. Installation of more than 6,500 rooftop solar panels began in September 2015 and are expected to produce 25 percent of the facility's electricity.

"One of our core values is sustainability," said center executive director Scott Cruickshank. "The rooftop solar installation will help us meet our carbon emission reduction goals, reduce utility costs

and provide an important learning opportunity for our convention center visitors and guests."

"I want to personally thank our partners at Pacific Power Blue Sky ™ renewable energy program and Energy Trust of Oregon for supporting this installation," Cruickshank added. "Their financial support made it possible to expand the original project scope of 1.1 megawatts to 2.0 megawatts, with no upfront costs borne by the facility or the taxpayers."

The solar installation will be constructed and operated by SolarCity, which was awarded the



SolarCity began installing 6,500 solar panels at the Oregon Convention Center in September 2015.

project through a competitive bidding process. In its first 20 years of operation, the rooftop solar system is estimated to generate as much energy as the equivalent of 184 Portland homes each year.

New waste diversion policy aimed at decreasing use of non-recyclable material at Oregon Convention Center

Beginning January 1, 2016, clients who book event space for conventions and meetings at the Oregon Convention Center – as well as the exhibitors who subcontract space during those events - will pay a new waste diversion deposit at contract signing. The potential for receiving a full refund is high, as long as show managers use recyclable materials.

The new policy is the first known of its kind throughout the convention industry and is intended to engage convention center clients in the facility's sustainability goals and achievements, which have

earned it LEED (Leadership in Energy & Environmental Design) Platinum certification, a rarity as a 25-year old venue.

"For well over a decade, we have been successful at building buy-in from staff to embrace our progressive sustainability practices. Now it's time to engage our clients in this mission. This innovative new policy will help us continue to move the needle on sustainability accomplishments," said Cruickshank.

The waste diversion policy prohibits hazardous materials, non-recyclable signs including foam core signs, helium balloons or single-use plastic bags. According to local clients, OCC's policy is consistent with the informal waste reduction practices of many show managers in recent years.



Oregon Convention Center works with show clients to create recycling plans before the show to maximize waste reduction.



Turning down the lights at Antoinette Hatfield Hall

This past year, Portland'5 Centers for the Arts (Portland'5) replaced nearly 4,000 incandescent "twinkle light" bulbs at 10 watts each with more efficient LEDs (Light-Emitting Diodes) at 0.6 watts each in the lobby of Antoinette Hatfield Hall. Compact fluorescent light bulbs in reflector lamps in the lobby ceiling were also replaced with LED bulbs. Together these retrofits will save Portland'5 148,000 kilowatt hours of electricity per year.

Additionally, operations staff at Portland'5 retrofitted the building controls at Antoinette Hatfield Hall and installed two new high efficiency gas boilers, both fully automated. Initial data from the project show natural gas consumption with the new boilers dropped by about half and electricity dropped by roughly 25 percent.



Portland'5 Centers for the Arts replaced 4,000 light bulbs at Antoinette Hatfield Hall saving 148,000 kilowatts of electricity per year.



Oregon Zoo selects sustainable palm oil in food products to help preserve habitat

Palm oil is the world's most popular vegetable oil, and is widely used in a variety of products including packaged foods, cleaners, and health and beauty products. Traditional production of palm oil destroys tropical habitats and displaces the animals that depend on them. Chendra, a Bornean elephant at the Oregon Zoo, was orphaned and injured during the course of palm oil production.

The Oregon Zoo believes that the most effective way consumers can help wildlife and habitats impacted by palm oil production is to advocate for more responsible palm oil production. To walk its talk, the Zoo looked to ensure that the palm oil-containing products it buys meet environmental and social criteria set by the Roundtable on Sustainable Palm Oil (RSPO). In 2014, Zoo staff completed an inventory of all food and concession products and identified 40 items that contain palm oil. Of these, the majority of products were from companies that had already joined the RSPO

– but 11 weren't. The Zoo worked with its vendors to identify replacement products that didn't contain palm oil or helped switch to palm oil from a company that is a member of the RSPO.

The zoo recognizes that RSPO membership is the first step on the journey toward responsible palm oil production, and that member companies should commit to timebound no-deforestation plans in order to ultimately break the link between palm oil production and habitat destruction.



16-year-old male Amur tiger Mikhail at the Oregon Zoo. ©Oregon Zoo/ photo by Shervin Hess

Zoo 'Elephant Lands' project earns green building honors

The Oregon Zoo's efforts to improve animal welfare and sustainability — funded in large part through the <u>community-supported 2008 zoo bond measure</u> — drew kudos this year for green building accomplishments at Elephant Lands. The Zoo's Elephant Plaza building took runner-up honors for Sustainable Project of the Year from the Portland Business Journal's 2015 Better Bricks

award. The Elephant Plaza building is the first commercial project in Oregon to use cross-laminated timber, a material made from planks of wood cross-hatched together into large sheets.

"We hope this will open some doors for future commercial projects to use this product and support economic development throughout the state," said Heidi Rahn, who oversees projects funded by the zoo bond measure. Steel and concrete take a lot of energy to

produce, said Emily Dawson, an architect and designer of the zoo facility. Since cross-laminated timber is comprised of smaller planks, it can be made from wood collected from fire-prevention work such as forestthinning and the clearing of damaged trees.

In addition, Energy Trust of Oregon awarded Metro, the zoo's governing agency, \$107,886 for energy-saving measures incorporated into the new Elephant Lands habitat. These measures include rainwater collection from the roof, an energysharing system for buildings at the zoo, one solar array for generating electricity and another for heating water.



Cross laminated timber is lifted onto the roof of a building under construction for Elephant Lands at the Oregon Zoo. © Oregon Zoo / photo by Michael Durham



To learn more, visit <u>oregonzoo.org/ElephantLands</u>.

Features of the new Elephant Lands habitat at the Oregon Zoo include solar panels, energy efficient design, an ecoroof, rainwater harvesting and use of natural daylight.

For more information on all of the

Zoo's sustainability efforts, visit <u>www.oregonzoo.org/news/category/sustainability</u>.

PARKS AND NATURE

Blue Lake Park entrance retrofitted with native plant rain garden

Metro recently reconstructed the entry to Blue Lake Regional Park. In addition to improving traffic flow and customer service at the entrance booths, the project replaced an outdated stormwater system with a bioswale planted with native plants to treat stormwater runoff. Previously, stormwater was managed by underground injection systems, including five drywells that directed untreated runoff from nearly 30,000 square feet of impervious surface into groundwater.

Two customer service booths were added to sell park passes and provide information to park patrons, including mobility-impaired visitors, thanks to accessibility enhancements. Stormwater

runoff from the entry and exit lanes now drains into one of five bio-swales or filtration planters. The swales and planters capture all runoff from the new entrance's 35,000 square feet of impervious surface, helping to prevent road flooding and to ensure that potential pollutants are not absorbed into the

groundwater system below the park.



A new rain garden at the entrance of Blue Lake regional park treats stormwater runoff from 30,000 square feet of impervious area, protecting groundwater.

Cattle visit Cooper Mountain Nature Park for pilot grazing project

Visitors enjoying <u>Cooper Mountain Nature Park's</u> breathtaking views, trails and wildflowers last spring and summer may have also encountered a new, temporary addition: cattle. As part of efforts to restore native prairies, a pilot project that started May 2015 has brought six head of cattle to Cooper Mountain's prairies to graze. Grazing is a traditional and effective method of land management. The cattle are being evaluated as a possible "partner" to help maintain a healthy prairie by controlling weeds and creating space for native, rare wildflowers to flourish.

"Flowers drive the food web in prairies," said Curt Zonick, the senior natural resources scientist at Metro who is leading the grazing project. "A prairie that doesn't have prescribed burns or grazing becomes a field of grass eventually. Grass will outcompete wildflowers."

Historically, grazing elk or deer would have munched their way through Cooper Mountain's prairies. Although deer still graze at the park, they are no match for a host of new invasive weeds, such as tall oat grass, bird vetch and creeping velvet grass. The weeds crowd out native grasses and flowers during the summer growing season and threaten to overrun the park's prairies.

"Grazing creates bare soil and opportunities for wildflowers to grow," Zonick said. "When a wildflower seed drops in a prairie that has been grazed, there's a chance it will land on bare soil

instead of a three-inch layer of grass." The cattle will be limited to grazing in an area bordered by a temporary electric fence, which will be moved periodically as the cattle make their way across the prairie.



Six head of cattle were brought to Cooper Mountain Nature Park to graze the prairie, making room for more wildflowers.

PROPERTY AND ENVIRONMENTAL SERVICES

Goats graze grass at St. Johns Landfill

In an innovative effort to control weeds and grass on 40 acres of hard-to-mow areas, staff at the St. John's Landfill brought in 1,000 goats last spring. Metro hired Prescriptive Livestock Services of Kennewick, Washington to bring goats to the closed landfill site accompanied by skilled herders and working dogs.

The goats eat vegetation down to the ground. They're fenced into areas that give them enough to eat for one day and then are moved to a new spot the next day. This method of weed and grass control reduces the need for pesticides and gas-powered equipment.



1,000 goats were brought to the closed St. Johns Landfill to graze on weeds and grass on 40 hard-to-mow acres which reduces the need for pesticides.

Conditionally Exempt Generators program goes paperless

Metro's Conditionally Exempt Generator (CEG) program is a service that makes it easy for small business customers to dispose of their hazardous waste. Now the program generates less paper waste as well.

For the past fifteen years, the program has required customers to use a paper form to sign-up and inventory their waste. This system required two pieces of paper: the blank printout on the customer's side, and the fax printout at Metro. In addition to wasting paper, this system also required staff to duplicate the customer's data entry efforts, an inefficiency that could potentially introduce errors into the data.

Staff from the Metro Central Household Hazardous Waste station worked with Metro's Information Services department to create an online CEG webform. This form collects the same information as the old paper form, but saves paper and avoids data duplication. Additionally, the data is automatically uploaded into Metro's CEG program database, enabling hazardous waste technicians

Safe, cost-effective hazardous waste disposal for your business

Conditionally Exempt Generator Program Metro Central Hazardous Waste 6161 NW 61st Ave., Portland 503-223-8133 centralceg@oregonmetro.gov Submit your application and inventory at oregonmetro.gov/ceg to focus on other tasks, such as correctly identifying and classifying the waste for proper billing and transport.

The new web form can be found online at <u>www.oregonmetro.gov/ceg</u>. A copy of the old paper form is still available on the website for customers who prefer it.

Metro's Integrated Pest Management (IPM) program takes off

In 2014, Metro Council adopted an Integrated Pest Management (IPM) Policy that standardized how pesticides are managed, tracked, and reported in order to help minimize the use of toxic products at all Metro properties. To successfully implement the IPM policy, Metro established an IPM Advisory Team with representatives from Metro's visitor venues and facility operations departments. During FY 2014-15 Metro Council approved a budget request for a new limited duration IPM Coordinator (0.6 FTE), who worked with the advisory team to complete a baseline assessment of current practices relative to IPM best practices and designed a new pesticide use review process.

Metro also hired Oregon State University to develop a new web-based pesticide risk assessment tool called Metro IPM PRIME. The tool enables staff to track applications of herbicides and pesticides as well as estimate the risks to human health and wildlife. Once developed and launched, the tool can also be used for planning and risk assessment for future applications.

Apotheker Plaza Café at Metro Regional Center

When Metro looked for a vendor to locate in the public restaurant space at Metro Regional Center, the project team's mission was to find a tenant that could provide fresh, local, healthy and sustainable food for an affordable price to Metro staff and others in the Lloyd District neighborhood during the work week. Ten percent of the evaluation for proposers was given to sustainability for their stated methods and commitment to reduce, reuse, recycle and compost.

Table 6 Café, a woman-owned business, received the contract from Metro. Its mission statement is "To exceed the needs and expectations of our customers from Metro, their guests, our community partners, and our suppliers by caring for each other and the earth." Table 6 Café is currently in the process of seeking B-Corp status, which means it commits itself legally to having a positive impact on society and the environment as well as making a profit.



Metro Regional Center Green Team: Robyn Brooks, Jodi Wacenske, Sabrina Gogol, Molly Chidsey, Danielle Johnson, Patrick Morgan, Travis Brown

The features of a new electric bike recently added to Metro's fleet are demonstrated by Metro Regional Center facility and fleet manager, Rory Greenfield, at Apotheker Plaza.



PART 2: PROGRESS TOWARD SUSTAINABILITY GOALS

GOAL 1: REDUCE GREENHOUSE GAS 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).
1		Electricity consumption from Metro facilities reported in kilowatt hours consumed (kWh).
	2015 target	15 percent reduction in GHG emissions from 2008 levels.

Metro completed a comprehensive greenhouse gas (GHG) emissions inventory for internal operations using 2008 as the baseline year. Metro repeated this inventory for the FY 12-13 year; the results of that analysis are in the graph below. Due to the complexity of the analysis, Metro does not complete a greenhouse gas emissions inventory for internal operations annually. The FY12-13 GHG inventory report is available at www.oregonmetro.gov/greenmetro.

For the purposes of the annual sustainability report, Metro includes year-over-year comparison data of electricity and natural gas consumption, two of Metro's key GHG emissions sources, which are tracked on an annual basis.

In FY14-15, Metro facilities consumed 26,682,231 kWh of electricity, a 17 percent decrease from the 2008 baseline, and 480,733 therms of natural gas, a 40 percent decrease from the FY10-11 baseline.¹



¹ The baseline years for reporting Metro-wide usage of electricity and natural gas are different. FY10-11 is used for natural gas since that is the year with the most complete set of gas usage data for Metro facilities tracked in this report.



FY 14-15 Electricity usage Metro facilities (kWh)

Electricity kWh usage FY14-15 (% Change over Baseline 2008-09)



FY 14-15 Natural gas usage (therms)



Natural gas usage FY 14-15 (% Change over Baseline 2010-11)



GOAL 2: CHOOSE NONTOXIC

	Goal	Eliminate the use or emissions of persistent bioaccumulative toxics (PBTs) and other priority toxic and hazardous substances by 2025.
Q	Original Indicator	Percentage of chemical products used at Metro facilities that have ingredients rated as a high hazard for human health, environmental toxicity or physical hazard such as flammability.
	2015 target (original indicator)	45 percent reduction from 2008 levels of chemical products in use at Metro which are persistent, bioaccumulative and toxic or have a high human health or environmental toxicity hazard.
	New indicator	Percentage of chemical products used at Metro facilities that have ingredients rated as high hazard in any one or more of the following categories: human health, environmental toxicity, physical hazard, persistent, bioaccumulative <u>or</u> inherently toxic. Chemical products that are rated as high hazard in <u>all</u> of these categories are flagged as most toxic and are a priority for replacement with safer alternatives.

Metro uses chemical information from product safety data sheets (SDS) to track toxicity of products used in internal operations. Metro developed a Toxics Assessment Tool in partnership with KHA-Online SDS, which is also the host for Metro's online SDS database. The Toxics Assessment Tool uses a variety of regulatory chemical lists cross referenced with the information contained in the SDS to make toxic hazard determinations.² The health and safety risks of substances in Metro's SDS inventory utilize the chemical abstract service number (CAS #) specific for each chemical ingredient. At the time this report was written, there were a total of 2,402 unique SDS in Metro's database.

Metro recently updated the methodology used for tracking toxicity of its product inventory which includes persistent, bioaccumulative and toxic chemicals (PBT). This methodology is more consistent with the intent of Metro Council's adopted toxics reduction goal to eliminate persistent bioaccumulative toxics and other priority toxic and hazardous substances. A summary of the findings with the old and new methodologies is shown on the following charts.

During FY 14-15, staff improved the methodology of the Toxics Assessment Tool to also flag products that contain persistent, bioaccumulative *or* inherently toxic substances. In addition, products which receive a high hazard rating in *all six* of the hazard categories – environmental toxicity, human health toxicity, physical hazards, persistent, bioaccumulative and inherently toxic – are flagged in the database as most hazardous. Metro will focus its toxics reduction efforts on these most hazardous products, seeking safer alternatives where available.

² Regulatory sources used by Metro's Toxicity Assessment Tool include: Annex IB of European Union Directive 67/548/EEC Directive 2001/59/EC (SDS Based), Annex IB of European Union Directive 67/548/EEC Directive 2001/59/EC (CAS# Based), Integrated Risk Information System (IRIS) List, National Toxicology Program (NTP) List, International Agency for Research on Cancer (IARC) List, California Proposition 65 List, and the Canadian Environmental Protection Act (CEPA 1999).



FY 14-15 Number of products (safety data sheets) with a high hazard rating in one or more categories³



FY 14-15 Number of products (safety data sheets) rated high hazard using original and new methodologies

Total Safety Data Sheets (SDS) in Metro inventory	2,402	
SDS with high hazard rating in health, environment or physical categories (original methodology)	1,114	46%
SDS with high hazard rating in any category: health, environment, physical, persistent, bioaccumulative OR toxic (<i>new methodology, part A</i>)	1,772	74%
"Worst of the Worst", SDS with high hazard rating in all categories:		
health, environment, physical, persistent, bioaccumulative AND toxic		
(new methodology, part B)	160	7%

³ Total SDS (safety data sheets) is total number in Metro's SDS database, not the sum of SDS that receives high hazard ratings. This is because a SDS may have a high hazard rating in more than one category.

GOAL 3: REDUCE WASTE

Goal	Reduce overall generation of waste, and recycle or compost all remaining waste by 2025.
Indicators	Weight (tons) of waste generated (garbage plus recycling and organics – food scraps and yard debris).
	Percent of waste recovered for recycling or organics.
2015 targets	Reduce waste generation 10 percent from 2008 levels by 2015. Recycle 75 percent of waste (average); parks goal 25 percent recovery.

To measure progress toward the goals of reducing overall waste generation and waste recovery, Metro tracks overall waste generation and recovery rates (weight of garbage, recycling and organics) from the major facilities in the agency's portfolio. Metro facilities generated 4,164 tons of waste in FY 14-15 and recovered an average of 56 percent of total waste on average. Many Metro facilities achieve a much higher recovery rate: the Oregon Zoo recovers 81 percent; Oregon Convention Center recovers 63 percent, Portland'5 Centers for the Arts Antoinette Hatfield Hall recovers 61 percent, and the Portland Expo Center recovers 52 percent.





FY 14-15 Total waste generation (disposal plus recovered waste, tons)





⁴ Blue Lake and Oxbow parks began tracking weight of yard debris, downed wood and trees as part of their recycling recovery rates in 2014 thus dramatically increasing their reported recovery rates.

⁵ Baseline years for calculating recycling recovery vary based on earliest available complete data set for that facility. The following facilities have a 2008 baseline year: Oregon Zoo, Oregon Convention Center, Portland Expo Center, Metro Regional Center and Latex Paint Facility. FY10-11 baseline year: All Portland'5 Centers for the Arts facilities and Oxbow Regional Park. FY11-12 baseline year: Blue Lake Park. FY12-13 baseline year: Glendoveer Golf and Tennis, St. Johns Landfill.

Goal	Use 50 percent less water from 2008 levels by 2025.
Indicator	Gallons of water consumed from water utilities and on-site sources.
2015 target	30 percent decrease in water consumption from 2008 levels.

GOAL 4: CONSERVE WATER

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). Glendoveer Golf and Tennis center and the Oregon Zoo continue to be the top water users of all Metro properties.

In FY14-15, Metro facilities consumed 224,170 CCF of water, including nearly 93,000 CCF from onsite wells. This is a 19 percent decrease from the FY08-09 baseline.



FY 14-15 water usage (CCF)



FY 14-15 Water usage compared with FY 08-09 baseline (CCF)



GOAL 5: ENHANCE HABITAT AND REDUCE STORMWATER

S. 10.	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 ⁶ 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.
	2015 targets	Reduce effective total impervious area on developed properties 50 percent from 2008 levels. Identify habitat-friendly improvement opportunities for developed properties.

Tracking effective impervious surface areas is a way to monitor the quantity of stormwater runoff from Metro's developed properties and resultant impacts to habitat health. In the past year, the Oregon Zoo and Blue Lake Park retrofitted portions of their campuses to treat stormwater runoff onsite, keeping that stormwater out of rivers.

Vegetated stormwater treatment areas receive runoff from 52,000 square feet of space at the zoo's new Elephant Lands habitat and a 2,600 square foot ecoroof is included in the facility design.



⁶ An impervious area that collects and drains rainwater directly to a stream or wetland system via pipes or sheet flow is considered an "effective impervious area" because it effectively drains the landscape. An impervious area that drains to landscaping, swales, parks and other pervious areas allows water to infiltrate through the soil and into ground water, without a direct connection to the stream or wetland.



FY 14-15 effective impervious area (square feet)

Effective impervious area FY 14-15, square feet (% Change over Baseline 2008-2009)



PART 3: APPENDIX

UTILITY COSTS

ENERGY EFFICIENCY INVESTMENTS

SUSTAINABLE PROCUREMENT

GHG EMISSIONS (FY12-13)

ABOUT THE METRO SUSTAINABILITY PROGRAM

UTILITY COSTS FY14-15

Many of Metro's sustainability activities revolve around improving facility systems and operations to make them more energy and water efficient. This utility costing data provides financial context and a sense of scale to the resource consumption that accompanies operation of Metro facilities and visitor venues.

Dept/ Facility	Department or venue	Utility Services - General	Electricity	Natural Gas	Solid Waste	Water & Sewer	Total FY14- 15 utility expenses
ZOO	Oregon Zoo	\$0	\$646,475	\$206,430	\$56 <i>,</i> 380	\$1,243,319	\$2,152,604
occ	Oregon Convention Center		\$776,981	\$97 <i>,</i> 635	\$63,249	\$192,331	\$1,130,195
EXPO	Portland Expo Center		\$367,588	\$64,594	\$28,044	\$81,377	\$541,604
P5	Portland'5 Centers for the Arts (co	mbined)	\$328,553	\$72 <i>,</i> 860	\$32 <i>,</i> 896	\$125,644	\$559,952
PES	Parks and Environmental Services	\$12,949	\$269,071	\$13,452	\$202,540	\$105,642	\$603,654
SUS	Sustainability Center	\$3,218	\$4,483	\$0	\$3 <i>,</i> 424	\$4,614	\$15,739
	FY 14-15 Totals	\$16,167	\$2,393,150	\$454,971	\$386 <i>,</i> 533	\$1,752,927	\$5,003,749
	FY13-14 Totals	\$21,621	\$2,252,024	\$517,217	\$286,203	\$1,621,214	\$4,698,278

Utility consumption costs for Metro facilities⁷, FY 14-15



FY 14-15 Utility costs by facility or venue

⁷ Until June 2015, Metro's department of Parks and Environmental Services included solid waste facilities, Blue Lake and Oxbow regional parks, and Metro Regional Center. Utility cost data does not include Glendoveer Golf and Tennis Center because the utilities at that facility are paid by a third party operator.

ENERGY EFFICIENCY PROJECTS FY14-15

Metro works closely with the Energy Trust of Oregon (ETO) to implement energy efficiency and renewable energy projects at Metro facilities and visitor venues. Projects last year included lighting upgrades, building systems updates and controls, design for energy efficiency for new buildings, a solar project and participation in ETO's Strategic Energy Management Program at the Metro Regional Center.

Location	Macura Description	Electricity savings	Natural Gas savings (therms)	ETC) incentive
Location			(therms)	1000	lived
ETO Existing Buildings Progr	am				
Portland'5 Centers for the Arts	LED lamps, building controls, HVAC updates	415,653	7,900	\$	116,379
Portland Expo Center	Lighting controls, induction lighting, occupancy sensing plug strips	991,561	-	\$	164,530
Glendoveer Golf and Tennis Center	Relamping, LED lighting, HVAC upgrades, Ringside restaurant AC units and roof top HVAC units	26,615	-	\$	6,461
Oregon Zoo	High efficiency furnace, kitchen tank conveyor, LED lighting, occupancy sensing plug strips	9,096	976	\$	2,559
Metro Regional Center	Occupancy sensing plug strips	40,186	-	\$	3,137
	-	1,483,111	8,876	\$	293,066
ETO New Buildings Program					
Zoo Elephant Lands exhibit - construction	Energy modeling and design assistance, modeled savings and installation			\$	139,206
Zoo Education Center - design	Early design and solar ready assistance			\$	2,500
Blue Lake Park facility design	Restroom, maintenance building and office improvements			\$	2,500
				\$	144,206
	Grand total ETO ca	ash incentiv	es FY13-14:	\$	437,272
ETO Strategic Energy Manage	ement Program; consultant services (no	ot including	cash incenti	ves)
Metro Regional Center	Strategic Energy Management, year 1			\$	26,000
Oregon Convention Center	Strategic Energy Management, year 2			\$	13,000
Total value of ET	O Strategic Energy Management consu	lting servic	es FY13-14:	\$	39,000

SUSTAINABLE PROCUREMENT FY14-15

Metro adopted a sustainable procurement administrative procedure in 2012, which implements Metro Code chapter 2.04.500-540, "Sustainable Procurement Program". The full Sustainable Procurement policy can be found online at <u>www.oregonmetro.gov/greenmetro</u>. The program's goals are to:

- Increase of 5 percent per year on the dollar amount of sustainable products purchased from the prior year;
- Increase utilization of minority-owned, women-owned and emerging small business (MWESB) certified firms in Metro contracting, expressed as a percent of total spend; and
- Increase utilization of local businesses within 400 miles of Metro.

In fiscal year 2014-2015, Metro spent over \$5.3 million on sustainable goods and services, broken down by category, below.⁸ This represents roughly 9% of Metro's overall spending on goods and services for the year, an increase of 6% over FY13-14.

Metro reports MWESB firm contract utilization rates in a separate report available on Metro's website: <u>www.oregonmetro.gov/mwesb</u>.

Metro-Wic	le Spend Totals by Category				
Third Party	Third Party Certified				
	Energy Efficient	\$	603,766		
	Sustainable Computer Hardware	\$	59,442		
	Green Cleaning Product	\$	58,546		
	Certified Wood Product	\$	-		
	Organic Product	\$	2,839		
	Habitat Friendly	\$	289,875		
	Reused Product	\$	599		
	Local Product	\$	12,827		
Recycled 0	Content				
	Recycled Paper	\$	243,116		
	Recycled Content Product	\$	157,899		
	Product - Other	\$	147,949		
Services					
	Habitat Friendly	\$	481,332		
	Energy Efficiency	\$	957,939		
	Feasibility / Design	\$	2,000		
	Other	\$	857,027		
	Renewable Power	\$	2,689		
	Green Building	\$	1,445,738		
Total Sust	ainable Procurement FY14-15	\$	5,323,582		
Total Goods and Services Purchases			58,920,613		
% Sustain	able Purchases		9%		

⁸ The "other" categories include products and services that have sustainable attributes but do not fit the categories Metro uses to track sustainable purchases. The "Product – Other" category includes products such as hybrid fleet vehicles. The "Services – Other" category includes services such as software that reduces paper and transit passes for Metro employees.

Greenhouse gas emissions inventory, FY12-13

Metro completed a comprehensive greenhouse gas (GHG) emissions inventory for internal operations using 2008 as the baseline year and repeated this inventory for the FY12-13 year; the results of that analysis can be found in the graph below. GHG emissions are reported in metric tons of carbon dioxide equivalent (MT CO_2e).

In FY12-13 Metro operations generated a total of 58,173 MT CO₂e from both direct and indirect sources. Overall, non-supply chain emissions decreased nearly 9% from 35,892 MT CO₂e in CY2008 to 32,673 MT CO₂e in FY12-13. While this is a significant reduction, it is not quite on pace to meet Metro's ambitious goal of an 80% reduction of non-supply chain emissions over CY2008 levels by 2050. The full FY12-13 report is available at <u>www.oregonmetro.gov/greenmetro</u>.





Emissions comparison between CY2008 and FY12-13, by emissions source and scope



ABOUT THE METRO SUSTAINABILITY PROGRAM

Metro's Sustainability Program coordinates implementation of the agency's Sustainability Plan for internal operations. Actions are spread across Metro's departments and visitor venues.

Sustainability Steering Committee

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

- Ed Williams, Portland'5 Center for the Arts
- Rick Hanes, Oregon Zoo
- Matthew Uchtman and Rick Hodges, Oregon Convention Center
- Chuck Dills, Portland Expo Center
- Jen High, Parks and Nature, parks operations
- Debbie Humphrey , Property and Environmental Services, solid waste operations
- Lydia Neill, Property and Environmental Services, Construction Project Management Office
- Rory Greenfield, Property and Environmental Services Metro Regional Center operations
- Tracy Sagal, Finance and Regulatory Services, Procurement Services division
- Benjamin Rowe, Finance and Regulatory Services

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. The following Metro employees served as chairs of the green teams during FY 14-15:

- Oregon Zoo green team: Rick Hanes
- Metro Regional Center green team: Sabrina Gogol
- Oregon Convention Center sustainability team: Rick Hodges
- Property and Environmental Services + Parks and Nature green team: Jim Quinn
- Portland'5 Centers for the Arts: Matt Nicoll

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

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