



## METRO

### Agenda

MEETING: METRO COUNCIL  
DATE: February 19, 2009  
DAY: Thursday  
TIME: 2:00 PM  
PLACE: Metro Council Chamber

#### CALL TO ORDER AND ROLL CALL

#### 1. INTRODUCTIONS

#### 2. CITIZEN COMMUNICATIONS

3. SUSTAINABILITY MANAGEMENT Flynn

4. REGIONAL TRAVEL OPTIONS PRESENTATION Peck

#### 5. CONSENT AGENDA

5.1 Consideration of Minutes for the February 12, 2009 Metro Council Regular Meeting.

5.2 **Resolution No. 09-4027**, Confirming the Reappointment of Members to the Nature in Neighborhoods Capital Grants Review Committee, Designating the Chair and Appointing a New Metro Natural Resources Staff Person.

#### 6. ORDINANCES – FIRST READING

6.1 **Ordinance No. 09-1210**, For the Purpose of Amending Metro Code Section 4.01.050(a) Admission Fees, Effective June 1, 2009.

6.2 **Ordinance No. 09-1211**, For the Purpose of Amending Metro Code, Chapter 12.02 Regional Park Fees, Section 10.02.020, to Adjust Park Entry Fees and Delegate to the Chief Operating Officer the Authority to Set all Other Regional Park Use Fees and Rental Fees.

6.3 **Ordinance No. 09-1212**, Amending the FY 2008-09 Budget and Appropriations Schedule Recognizing Donations to the Oregon Zoo, Amending the Capital Improvement Plan, and Declaring an Emergency.

#### 7. RESOLUTIONS

7.1 **Resolution No. 09-4018**, For the Purpose of Approval of the Regional Travel Options Program Work Plan and Funding Sub-allocations for Fiscal Year 2009-2010.

Harrington

**8. CHIEF OPERATING OFFICER COMMUNICATION**

**9. COUNCILOR COMMUNICATION**

**ADJOURN**

**Television schedule for February 19, 2009 Metro Council meeting**

<p><b>Clackamas, Multnomah and Washington counties, and Vancouver, Wash.</b>          Channel 11 – Community Access Network  <a href="http://www.tvctv.org">www.tvctv.org</a> – (503) 629-8534          2 p.m. Thursday, Feb. 19 (Live)</p>	<p><b>Portland</b>          Channel 30 (CityNet 30) – Portland Community Media  <a href="http://www.pcmv.org">www.pcmv.org</a> – (503) 288-1515          8:30 p.m. Sunday, Feb. 22          2 p.m. Monday, Feb 23</p>
<p><b>Gresham</b>          Channel 30 – MCTV  <a href="http://www.mctv.org">www.mctv.org</a> – (503) 491-7636          2 p.m. Monday, Feb. 23</p>	<p><b>Washington County</b>          Channel 30 – TVC-TV  <a href="http://www.tvctv.org">www.tvctv.org</a> – (503) 629-8534          11 p.m. Saturday, Feb. 21          11 p.m. Sunday, Feb. 22          6 a.m. Tuesday, Feb. 24          4 p.m. Wednesday, Feb. 25</p>
<p><b>Oregon City, Gladstone</b>          Channel 28 – Willamette Falls Television  <a href="http://www.wftvaccess.com">www.wftvaccess.com</a> – (503) 650-0275          Call or visit website for program times.</p>	<p><b>West Linn</b>          Channel 30 – Willamette Falls Television  <a href="http://www.wftvaccess.com">www.wftvaccess.com</a> – (503) 650-0275          Call or visit website for program times.</p>

**PLEASE NOTE: Show times are tentative and in some cases the entire meeting may not be shown due to length. Call or check your community access station web site to confirm program times.**

Agenda items may not be considered in the exact order in which they are listed. If you have questions about the agenda, please call Chris Billington, Clerk of the Council, at (503) 797-1542. Public hearings are held on all ordinances second read and on resolutions upon request of the public. Documents for the record must be submitted to the Clerk of the Council to be included in the decision record. Documents can be submitted by e-mail, fax or mail or in person to the Clerk of the Council. For additional information about testifying before the Metro Council, and for other public comment opportunities, please go to this section of the Metro website [www.oregonmetro.gov/participate](http://www.oregonmetro.gov/participate). For assistance per the American Disabilities Act (ADA), dial Metro’s TDD line (503) 797-1804 or (503) 797-1540 for the (Council Office).

Agenda Item Number 3.0

**SUSTAINABILITY MANAGEMENT**

*Auditor Report*

Metro Council Meeting  
Thursday, February 19, 2009  
Metro Council Chamber



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**Sustainability Management:**  
*Focus efforts and evaluate progress*

February 2009  
A Report by the Office of the Auditor

Suzanne Flynn  
*Metro Auditor*

Audit Team: Fred King, Sr. Management Auditor  
Brian Evans, Sr. Management Auditor



## National Awards for Auditing

### **Metro Audit Winner of ALGA 2007 Award**

The Office of the Auditor was awarded with the Gold Award for Small Shops at the 2008 conference of the Association of Local Government Auditors (ALGA). The award was presented for the Natural Areas audit completed October 2007.

### **Metro Ethics Line**

The Metro Ethics Line gives employees and citizens an avenue to report misconduct, waste or misuse of resources in any Metro or Metropolitan Exposition Recreation Commission (MERC) facility or department.

The ethics line is administered by the Metro Auditor's Office. All reports are taken seriously and responded to in a timely manner. The auditor contracts with a hotline vendor, EthicsPoint, to provide and maintain the reporting system. Your report will serve the public interest and assist Metro in meeting high standards of public accountability.

*To make a report, choose either of the following methods:*

**Dial 888-299-5460 (toll free in the U.S. and Canada)**

**File an online report at [www.metroethicsline.org](http://www.metroethicsline.org)**



SUZANNE FLYNN

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## MEMORANDUM

February 12, 2009

To: David Bragdon, Council President  
Rod Park, Councilor, District 1  
Carlotta Collette, Councilor, District 2  
Carl Hosticka, Councilor, District 3  
Kathryn Harrington, Councilor, District 4  
Rex Burkholder, Councilor, District 5  
Robert Liberty, Councilor, District 6

From: Suzanne Flynn, Metro Auditor

**Subject: Audit of Sustainability Management**

The attached report covers our audit of Metro's sustainability efforts. This audit was included in our FY07-08 Audit Schedule.

Recently, a growing consensus about global warming has caused businesses and governments to look at their effect on the environment. This audit examined Metro's efforts to increase the sustainability of its internal operations.

We found that Metro has not directed its efforts towards the largest sources of emissions or those facilities with the largest impact. This is due in part to the implementation design for sustainability management. To date, limited resources have affected Metro's efforts. ENACT and the Green Teams are volunteers who have many other job duties to perform. Because funds were allocated from Solid Waste revenues, efforts were also limited in scope by State statute. If Metro is to move forward, it must decide what price premium it is willing to pay.

We have discussed our findings and recommendations with Scott Robinson, Deputy COO, Jim Desmond, Director, Sustainability Center, and Teri Dresler, Director, Parks and Environmental Services. We have also reviewed the audit with ENACT. A formal follow-up to this audit will be scheduled within 1-2 years. We would like to acknowledge and thank the management and staff in the Departments who assisted us in completing this audit.

A handwritten signature in cursive script, appearing to read "Suzanne Flynn".



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## Summary

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In 2008, the Metro Council made sustainability the guiding principle for all Metro policies and programs and called for stronger sustainable business practices within Metro. The purpose of this audit was to evaluate whether Metro's sustainability efforts related to its internal operations were strategically managed to achieve intended results and ensure cost effectiveness. The audit looked at all Metro facilities, including the Metropolitan Exposition Recreation Commission (MERC).

To accomplish its objectives, Metro relied on two cross-department teams. These teams lacked centralized authority and accountability. Despite this barrier, the teams put into operation a diverse set of projects to increase Metro's sustainability. The Oregon Convention Center was the first convention center in the U.S. to receive the Leadership in Energy and Environmental Design certification for an existing building. Both Metro and MERC have hired sustainability coordinators.

The funding available to these teams also created a barrier. Derived from revenue generated by Metro's solid waste management system, the teams could only fund projects that reduced or prevented solid waste from Metro operations. As a result, Metro's efforts in the past five years have not targeted the largest sources of carbon emissions and water use.

Our inventory of Metro's emissions found that electricity and natural gas consumption and landfill gas flaring accounted for 91% of the agency's estimated emissions. From FY04 to FY08, 3% of expenditures focused on energy efficiency, even though 59% of Metro emissions were generated by electricity and natural gas consumption. Conversely, commuting accounted for 6% of Metro emissions, yet 59% of expenditures focused on commuting.

In addition to lacking a strong organizational structure, we found that Metro needed a system-wide sustainability plan. As part of the plan, the Metro Council should specify how much the agency should spend on sustainability related activities. Metro should conduct cost-benefit analyses prior to implementation.

Even with a system-wide plan in place, it would still be difficult for Metro to measure progress. For example, during our audit, we attempted to extract information from Metro's financial system about the use of electricity, natural gas, and fleet fuel, and the amount of air travel. We were unable to get complete, accurate, and reliable information from existing data management systems and had to request data directly from utility providers.

We acknowledge that sustainability management is a relatively new concept. To be most effective, Metro needs to have a clear understanding of two aspects of its operations. It needs to determine the availability of reliable data to estimate environmental impacts and its level of control over its resource use. Based upon these two aspects, Metro can move forward to reduce its impact.

## Background

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There is a general consensus that the Earth's climate is changing, and that the changes are the result of human activity. The burning of fossil fuels (coal, natural gas and oil) has increased the concentration of carbon dioxide, methane, nitrous oxide, and fluorinated gases in the atmosphere. These “greenhouse” gases prevent heat from escaping from the atmosphere. The average temperature of the Earth has increased 1.2 to 1.4° F in the last 100 years. This change is likely to produce changes in rainfall patterns, sea level and more frequent weather extremes.

International, national and local communities have responded to this problem, and some government agencies have taken steps to reduce the greenhouse gas emissions of the communities they serve and their own internal operations. Metro has committed itself to establish a sustainable business plan in response to global climate change. In 2003, the Metro Council passed a resolution that provided for the creation of a sustainable business model, and set goals for internal sustainability at Metro facilities. These goals included:

1. zero net increase in carbon emissions,
2. zero discharge of persistent bio-accumulative toxins,
3. zero waste disposed and incinerated,
4. fifty percent reduction in water consumption and
5. zero net loss of biodiversity and productive healthy habitat for forests and riparian areas.

In 2008, the Council made sustainability the guiding principle for all Metro policies and programs. It called for the development of a regional climate change action plan and the implementation of stronger sustainable business practices within Metro.

Several departments have initiated projects to make Metro’s operations more environmentally sustainable. Metro has made efforts to reduce paper use, increase recycling, make lighting and heating more efficient, manage energy used for computers, and reduce single occupancy vehicle commuting. The Oregon Convention Center was the first convention center in the United States to receive the Leadership in Energy and Environmental Design (LEED) certification for an existing building.

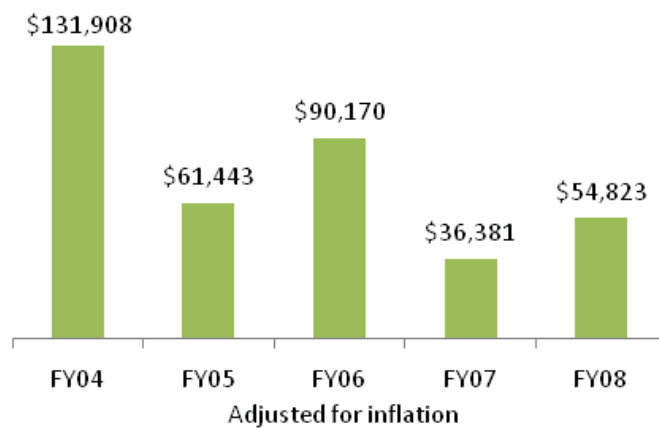
In 1999, the Environmental Action Team (ENACT) was convened to evaluate different sustainability models and to meet with local governments and businesses to review their sustainability programs. ENACT was made up of Metro employees from each department and Metropolitan Exposition Recreation Commission (MERC) facility. This volunteer group recommended funding for projects to reduce environmental impacts and to make facilities more resource-efficient. ENACT provided training in environmental sustainability and initiated projects for waste reduction, recycling, water use reduction and a “green

roof". ENACT also worked with Green Teams at three Metro facilities (Metro Regional Center, Oregon Zoo and Oregon Convention Center). These Green Teams identified opportunities to make Metro's operations more sustainable at individual facilities.

Metro has increased its recycling rate. Both Metro Regional Center (MRC) and the Oregon Convention Center now have Sustainability Coordinators and efforts have been made to increase the amount of "green" energy Metro purchases.

ENACT and Green Team expenditures have varied considerably over the last five years. Overall, ENACT and Green Team expenditures decreased by 58% between FY04 and FY08.

**Exhibit 1**  
ENACT and Green Team  
Expenditures



Source: Auditor's office analysis

In addition to ENACT, Metro had other programs that were designed to have a direct impact on environmental sustainability: a program to provide TriMet passes to employees and the Transportation Demand Management Program, which offered incentives for employees to walk, bicycle and use carpools for commuting to work.

## Scope and Methodology

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The objective of this audit was to evaluate whether Metro's internal environmental sustainability efforts were strategically managed to achieve its intended results and ensure cost-effectiveness. The scope of this audit encompasses all facilities operated by Metro, including the Metropolitan Exposition Recreation Commission (MERC) facilities. The purpose was to:

- Determine whether sustainability efforts were organized in a way that facilitated achievement of the agency's sustainability goals;
- Determine whether Metro monitored expected and actual results and used analysis in decision making;
- Analyze sustainability efforts and determine what was accomplished; and
- Determine which sustainability management strategies were most cost-effective and determine if Metro's was targeting those activities with the greatest impact.

Sustainability is typically defined as integrating three separate aspects: environmental, social, and economic. Metro's adopted definition says "Sustainability means using, developing and protecting resources in a manner that enables people to meet current needs and provides that future generations can also meet future needs, from the joint perspective of environmental, economic and community objectives of sustainability." For the purposes of this audit, we focused primarily on the environmental and economic impacts of Metro's internal operations.

To accomplish these objectives we reviewed Metro's goals, policies, strategies, organizational structure and funding for sustainability projects. We interviewed Metro staff members and reviewed expenditures related to environmental sustainability over the last five years in the agency's financial system. Since the financial data had been audited we believe this data is reasonable and accurate. We conducted research in best sustainability management practices. Finally, we collected electricity, natural gas, fleet fuel, landfill gas, recycling, air travel, water and commuting data for each Metro facility. Using this data we estimated the amount of greenhouse gases generated and water used at Metro's facilities.

To estimate greenhouse gas emissions and water use, we used data from:

- City of Portland Water Bureau
- City of Oregon City Utility Billing Department (water use)
- PacifiCorp (electricity)
- Portland General Electric (electricity)
- NW Natural (natural gas)
- Fleet fuel providers (gasoline, diesel, propane)

- State of Oregon (fleet fuel)
- Multnomah County (fleet fuel)
- Metro (St. Johns Landfill emissions, fuel)

We were able to compare water, fleet fuel and utility data with information collected from Metro's facilities and financial system. We concluded that the data from the utility providers was sufficiently reliable for the purposes of this audit. The methodology used to calculate greenhouse gas emissions is described in the appendix of this report.

The effects of Metro's purchases on the environment were considered during the survey phase of this audit. Metro Council resolutions and Executive Orders address sustainable procurement policies, and procurement has a direct effect on the agency's environmental sustainability. However, procurement and social aspects of sustainability management were excluded from this audit.

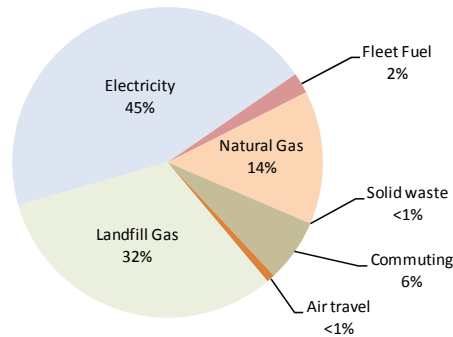
This audit was included in the FY08 audit schedule. We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

## Results

### Largest sources of carbon emissions not targeted

Metro's sustainability efforts over the last five years have not targeted the largest sources of carbon emissions and water use. Our inventory of Metro's emissions found that electricity and natural gas consumption and landfill gas flaring accounted for 91% of the agency's estimated emissions. Electricity was the single largest source accounting for 45% of total emissions. Flaring of landfill gas at St. Johns Landfill was the second largest source, accounting for 32% of agency emissions. Emissions from natural gas consumption account for 14% of emissions which was more than twice as much as the next largest emissions source.

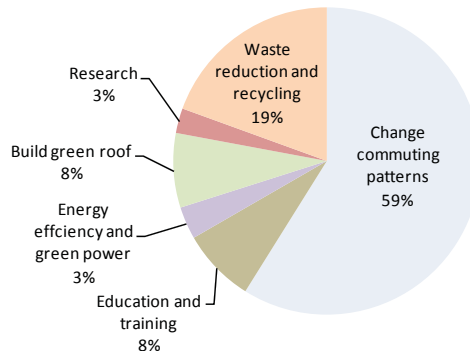
**Exhibit 2**  
Sources of greenhouse gas emissions



Source: Auditor's Office Analysis

In comparison, sustainability related expenditures (including ENACT, Green Teams, bike coupons and Tri-Met transit passes) for the last five years did not focus on the largest sources of emissions. From FY04 to FY08, 3% of expenditures focused on energy efficiency and/or green power even though 59% of Metro emissions were generated by electricity and natural gas consumption. Conversely, commuting accounted for 6% of Metro emissions, yet 59% of expenditures focused on commuting. Similarly, solid waste from Metro facilities accounted for less than 1% of total emissions (not counting St. Johns Landfill) but 19% of expenditures were for waste reduction and recycling. However, these efforts did address Metro's goal for zero waste disposal.

**Exhibit 3**  
Expenditure by objective FY04-FY08



Source: Auditor's Office Analysis



Metro has made some effort to reduce and mitigate emissions from electricity and landfill gas. Metro offset about 20% of its electricity emissions in 2007 by purchasing renewable power credits from PGE and PacifiCorp.

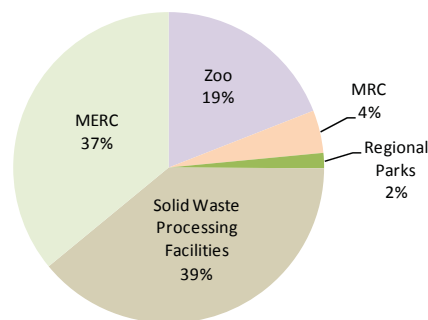
Metro has a lease agreement with Portland LFC Joint Venture which gives Portland LFC exclusive rights to sell the landfill gas from St. Johns Landfill until May 2012. Portland LFC currently sells landfill gas to Ash Grove Cement for use in its operations. In 2007, Ash Grove used about 48% of the gas generated at St. Johns Landfill. The other 52% was flared at the landfill accounting for 31% of Metro's estimated greenhouse gas emissions.

During our audit, we were told about several lighting and heating projects at Metro facilities to reduce energy consumption. These efforts may increase energy efficiency at Metro facilities but we were unable to verify their impact on emissions due to a lack of baseline data from before and after the projects were completed. These efforts demonstrate some success in addressing the largest source of emissions, but more coordination will be needed to strategically align resources with the sources of the largest impact.

**Focus efforts on facilities with the largest impact**

Some Metro facilities have a greater impact on carbon emissions than others. During our greenhouse gas inventory we found that the Zoo, Solid Waste facilities, and Metropolitan Exposition Recreation Commission (MERC) facilities account for 94% of Metro's estimated emissions. Metro's sustainability efforts over the last five years have not targeted these facilities in a coordinated way. To meet its goal of carbon neutrality Metro will need to target efforts to the facilities with the largest greenhouse gas impact.

**Exhibit 4**  
Sources of greenhouse gas emissions by facility



Source: Auditor's Office Analysis (see page 36 of Appendix for a full description of included facilities)

Our analysis of water use shows that the Zoo has the highest water use of all Metro facilities (76%) followed by MERC (14%) and Solid Waste facilities (8%). Sustainability expenditures for FY04-FY08 by ENACT and the Green Teams did not include expenditures for water use reduction at sites with the highest levels of water use. Metro’s ability to reduce water use by 50% will depend largely on strategies that reduce water use at the Zoo.

Another area where Metro faces challenges in meeting its sustainability goals is recycling. Metro established two recycling goals. One was the long-term goal in the 2003 resolution of zero waste disposal or incineration. The other was a regional waste recovery goal of 62% in Oregon Statute that was included in the Metro Regional Solid Waste Management Plan (RSWMP). The recycling rate across all Metro facilities (46%) in 2007 was below the regional goal for 2005.

**Exhibit 5**  
Recycling rates

Metro Facilities	2003 Recycling Rate	2007 Recycling Rate
Metro Regional Center	65%	58%
Regional Parks	0.2%	N/A *
Oxbow Park	0.6%	7%
Blue Lake Park	0.1%	N/A *
Oregon Zoo	69%	68%
MERC	18%	28%
Portland Center for Performing Arts	29%	38%
Oregon Convention Center	20%	31%
Expo Center	12%	20%
<b>TOTAL</b>	<b>40%</b>	<b>46%</b>

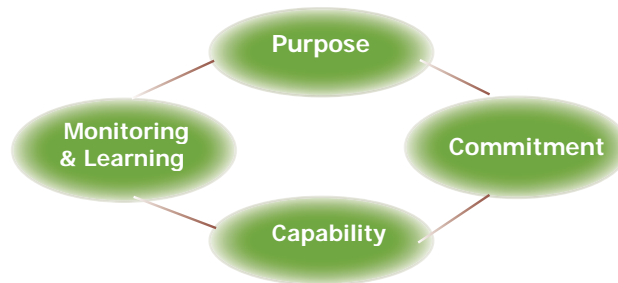
Source: Metro Sustainability Center  
\* Available beginning in 2008

In 2007, Metro Regional Center and the Zoo were the only two Metro facilities to meet or exceed the regional goal for 2005. Parks, MERC and Metro as a whole will need to increase their recycling rates considerably to meet the 2009 goals. Some progress has been made between 2003 and 2007 but Metro is still below its 2005 and 2009 goals, as well as the long-term goal of zero waste disposal (equivalent to a 100% recycling rate). Metro’s ability to demonstrate leadership in the region may be eroded if its facilities are unable to meet these goals.

## Sustainability efforts need better organization

Best practices indicate that an organization needs to focus on four iterative and interconnected controls to effectively meet an objective. Controls comprise those elements of an organization that, taken together, support people in the achievement of the organization's objectives.

**Exhibit 6**  
Control framework



Source: Canadian Institute of Chartered Accountants: *Guidance on Assessing Control*

**Purpose** provides a sense of the organization's direction including mission, vision and strategy; risks and opportunities; policies; planning; and performance targets and indicators.

**Commitment** focuses on the organization's identity and values including integrity; authority; responsibility and accountability.

**Capability** gives a sense of the organization's competence to ensure sufficient knowledge; skills and tools; communication process and information coordination.

**Monitoring and learning** provides a sense of the organization's evolution. This includes monitoring performance; challenging assumptions; reassessing information needs and systems; follow-up procedures and assessing the effectiveness of controls.

We used the above described control framework designed by the Canadian Institute of Chartered Accountants to assess Metro's sustainability management efforts and found areas for improvement at each stage of the control process.

Metro needs a plan in order to effectively manage its efforts

Controls related to purpose need to be strengthened. Metro's sustainability efforts over the last five years have consisted of a series of ad hoc projects with little agency wide coordination, policies, performance measures, or evaluation of costs and benefits. As a result, there does not appear to be a clear understanding of what price premium Metro is willing to pay to achieve greater sustainability.

The Metro Council has directed that Metro's definition of sustainability be the guiding principle for current and future policies and programs. To meet this requirement, Metro needs policies, plans and objectives that provide clear direction about the strategies the agency will use to meet its goals. Without a clear understanding of policy options and associated costs, there is a risk that Metro will not be able to target resources towards strategies that are most cost-effective.

Metro made limited progress toward meeting the sustainability goals in the 2003 and 2008 resolutions. While Metro has implemented many sustainability related projects, there has been little progress on the creation of an information management system, evaluation of accounting mechanisms, and annual reporting to Council as called for in the 2003 resolution.

Metro needs a system-wide sustainability plan. ENACT, Green Teams and individual departments have had success in providing leadership and implemented a diverse set of projects to increase Metro's internal sustainability. These projects have enhanced Metro's sustainability but have not been specific enough to identify and target activities that will be most cost-effective. Management states that the newly hired Sustainability Coordinator will create a sustainability management plan. This plan can help Metro create a coordinated strategy to reach its long-term sustainability goals. As part of the plan, Metro Council should clearly specify the price premium it is willing to pay for sustainability activities. The plan should include measurable short-term goals and objectives aligned with the long-term goals in the 2003 resolution.

During the audit, we found sustainability related projects are not consistently supported by objective cost-benefit analysis of their potential return on investment. In some cases, sustainability activities are very well planned, with detailed analysis of costs and benefits. In other cases, there is limited cost-benefit analysis, or analysis by vendors is used. As a result, there is no way to determine whether many of the sustainability activities deliver financial or environmental benefits that exceed their costs. To help Metro effectively manage its sustainability activities, there should be an assessment of the fiscal and environmental costs and benefits of projects prior to implementation.

#### Organizational design hindered implementation

Metro needs to strengthen its controls related to commitment and capability. Organizational and funding barriers prevented effective sustainability management at Metro. Metro relied on ENACT and Green Teams to coordinate and implement internal sustainability efforts. This management structure began in 1999 with the creation of ENACT and was formalized in the 2003 resolution.

ENACT and the Green Teams were volunteer groups that have completed many projects but lacked centralized authority, accountability, or control to direct efforts across all Metro facilities. The result was a completely

voluntary organizational structure for sustainability without clear direction about what is expected and who is responsible for achieving results.

In addition to ENACT and Green Team projects, individual departments undertook sustainability efforts independently. The goals and strategies that guide individual department decisions varied widely across the agency which made coordination for sustainability efforts difficult. These efforts were largely driven by individual advocates rather than formalized as part of position descriptions and work plans.

Because Metro's efforts were dependent on a relatively small number of people, there is a risk that employee turnover could impact outcomes. These factors made Metro's efforts variable from year-to-year as funding and management priorities fluctuated. Some progress has been made to address these issues with the creation of two Sustainability Coordinator positions in the FY09 budget.

Finally, the variety of Metro's operations presents challenges for coordinated sustainability management. Metro operates the Zoo, event facilities (MERC), solid waste processing facilities, office buildings, regional parks, and a landfill. Each facility has unique challenges and opportunities in managing sustainability. Metro's sustainability management organizational structure and plan should recognize these differences by creating facility and source specific strategies.

Source of funding  
limited effectiveness

Funding for ENACT was also a barrier to effective sustainability management and limited Metro's ability to strategically use funds. ENACT's funding came from solid waste revenue which by Oregon Statute can only be used for projects and programs "...related to solid waste and related planning, administrative and overhead costs of the district." As a result, the grants ENACT made each year for sustainability projects were limited to projects that reduced or prevented solid waste from Metro operations.

We found that this funding structure was one of the reasons why the agency focused its efforts on waste reduction and recycling. Moreover, it has limited ENACT's ability to fund projects that would have the greatest environmental impact. A 2007 consultant report recommended significant changes to ENACT'S business model including diversifying its sources of funding.

Limits on ENACT's funding may also contribute to the lack of coordination across the agency. Sustainability projects not focused on waste reduction and recycling were primarily funded from departmental budgets. This decreased the utility and authority of ENACT as a centralized planning and coordinating body. The result was uncoordinated efforts and disparities in the level of investment by departments.

Track important information

Even with a system-wide sustainability plan in place, it would be difficult for Metro to measure progress toward its sustainability goals. Metro lacked the fourth element of the control framework: monitoring and learning from its sustainability efforts. Metro did not collect data needed to track progress.

Metro's internal sustainability goals include zero net increase in carbon emissions and a fifty percent reduction in water consumption. Best practice research states that it is important to establish baseline data by facility and emission source in order to track progress towards sustainability goals.

We attempted to extract information about the amount of electricity, natural gas, and fleet fuel used and the amount of air travel from Metro's accounting system to estimate the amount of greenhouse gases generated. We also attempted to estimate greenhouse gases produced by employee commuting and to determine the amount of water used in Metro facilities. We were unable to get complete, accurate and reliable data on emissions sources and water use from Metro's data systems, and had to use data from the utility providers. We also found that the data was difficult to obtain and analyze.

*Utilities*

Metro staff provided a partial list of utility accounts. It was difficult to identify all the meters associated with Metro's facilities. To get complete electricity, gas and water consumption data required several contacts with two electric companies, two water utilities and a natural gas company.

To ensure that we obtained data for all Metro facilities, we compared account numbers and addresses the utilities provided to Metro facility addresses. The utility providers did not list all Metro accounts under the name "Metro," making it difficult to capture all Metro information from their databases as well. At one facility, the water meter was shared with another tenant, making it impossible to determine how much of the water was used by the Metro operation.

*Fleet fuel*

Metro does not track its vehicle fuel use. It was difficult to determine the amount of gasoline and other fuels Metro uses for several reasons:

- There was no single inventory for all Metro vehicles.
- No facilities were actively tracking their fuel consumption.
- The accounting systems used to pay for fuel varied by department and within departments. At some sites, fuel was purchased by individuals using procurement or fuel cards while at others fuel was delivered onsite.
- Some Metro facilities used more than one fuel vendor.

Eleven fuel vendors were contacted to get fuel consumption data for one year. Tracking fuel expenditures was further complicated by the fact that some MRC vehicles are billed through the State of Oregon while expenses for some Parks vehicles are billed through Multnomah County.

*Air Travel* It was also difficult to estimate the amount of greenhouse gases generated from Metro air travel. There is no accounting code to distinguish air travel from other travel expenditures, making it difficult to identify air travel in Metro's accounting system. Greenhouse gas estimates for air travel use the distance travelled, which can be determined using the destination of each trip. However, it was usually impossible to identify the travel destination from the electronic records in the accounting system without looking at scanned procurement card receipts.

*Commuting* Metro does not have information that can be easily used to estimate greenhouse gases generated by employee commuting. The Lloyd District Transportation Management Association conducted an annual survey of the travel modes used for commuting by staff for one facility (MRC). The survey estimated greenhouse gas reductions resulting from the use of transit and bicycles. This information was only collected for commutes during one week out of the year. Since the survey was conducted during the summer, it is likely that it does not represent typical commuting patterns.

*Solid Waste* The waste and recycling data Metro collects was more comprehensive than other sustainability management data we reviewed, but it was collected in a way that made it difficult to use to calculate greenhouse gas emissions. Metro facilities reported the amount of waste they dispose of and recycle, but this data was not collected consistently enough to allow analysis or comparability over time. Forms requesting the weight of the waste disposed or recycled were sometimes completed with other information (e.g. the number of dumpsters, fluid quantities or a list of items). Without the weight of these items, it was not possible to use this information to determine the amount of greenhouse gases they generate.

*Greenhouse Gas Emissions* Metro must select an appropriate model for estimating greenhouse gas emissions. Some models were developed for businesses, which have priorities that are different from government organizations. It is important to consider comparability, completeness, and suitability to the varied types of facilities Metro operates. As the science of greenhouse gas estimation is an evolving field, different models also use different assumptions to generate their greenhouse gas estimates, and yield different results. For example, estimates of the greenhouse gas emissions produced by the St. Johns Landfill vary widely. The State of Oregon Department of Environmental Quality estimates the fugitive emissions from the St. Johns Landfill for 2007 at 19,972 metric tons (CO<sub>2</sub> equivalent). Metro's Sustainability Center staff believes that fugitive emissions are "negligible."

*Expenditures* The 2003 Council resolution required Metro to "evaluate accounting mechanisms by which departments that make the capital investment in resource-efficient materials and services are able to receive operational savings even if those savings might accrue to another department." However, information about expenditures for sustainability was not tracked in Metro's accounting system. It was also difficult to know how much staff time is devoted to managing internal sustainability, since accounting codes for sustainability activities are not included in the agency's accounting system.

## Considerations and strategies to move forward

Sustainability management is a relatively new concept. The tools used to estimate impacts and manage efforts are evolving at a rapid pace, making best practices for sustainability management very dynamic. There are a variety of tools for estimating greenhouse gas emissions, reporting results and developing mitigation strategies. These tools are valuable resources but their effectiveness is dependent on the clarity of purpose, availability of data, consistency of efforts, and overarching strategy of Metro's sustainable business model. The previous sections of this report have outlined the environmental impacts, and organizational and data availability challenges of Metro's operations. Using this information, we suggest possible strategies to help Metro better manage its efforts.

Best practice research, as well as our own experiences during the audit, indicates that it is critical for Metro to have a clear understanding of two aspects of its operations to manage its sustainability efforts effectively. One is the availability of reliable data which has a large impact on the quality of estimating environmental impacts. Availability of data determines what can be measured and is critical for establishing baselines and tracking results. The other aspect is control over resource use. Metro has greater control over some parts of its operations than others.

At Metro, availability of data and control over usage varied by facility. For the most part Metro had the ability to obtain reliable data for its facilities and emissions sources although the complexity of gathering data varied by facility.

Control over resource use depended on the type of facility. For example, the Zoo and MERC have large indoor public facilities requiring considerable heating and cooling throughout the year. Metro had less control over resource use at these facilities than at others where only Metro employees worked. Metro had two types of facilities that impact the level of agency control over resource use:

- **Assembly facilities:** Oregon Convention Center, Exposition Center, Portland Center for the Performing Arts, Zoo, Regional Parks, Pioneer Cemeteries; and
- **Non-assembly facilities:** Metro Regional Center, South Transfer Station, St. Johns Landfill, Central Transfer Station, South Hazardous Waste Facility, Metro Paint.

Acknowledging and accounting for availability and control challenges is important for developing effective sustainability management strategies.



**Exhibit 7**  
Availability-control matrix

Control over usage				
Availability of relevant information		High control	Moderate control	Low control (or long term horizon for change)
	High availability	<ul style="list-style-type: none"> <li>Electricity (non-assembly facilities)</li> <li>Natural gas (non-assembly facilities)</li> <li>Water (non-assembly facilities)</li> </ul>	<ul style="list-style-type: none"> <li>Waste reduction (non-assembly facilities)</li> </ul>	<ul style="list-style-type: none"> <li>Electricity (assembly facilities)</li> <li>Natural gas (assembly facilities)</li> <li>Water (assembly facilities)</li> <li>Waste reduction (assembly facilities, regional parks)</li> <li>Landfill gas</li> </ul>
	Moderate availability		<ul style="list-style-type: none"> <li>Fleet</li> <li>Air travel</li> </ul>	<ul style="list-style-type: none"> <li>Employee commuting</li> </ul>
	Low availability	<ul style="list-style-type: none"> <li>Refrigerants</li> <li>Procurement</li> </ul>		

Source: Auditor's Office Analysis

Source-specific strategies should be planned

Metro's sustainability management plan should prioritize efforts based on the largest sources of emissions. If Metro is to become carbon neutral, it will need to mitigate about 32,000 metric tons of carbon equivalent emissions. Based on our greenhouse gas inventory electricity, natural gas and landfill gas flaring accounted for 91% of Metro's emissions. These three sources should be the primary targets for Metro's sustainability efforts related to carbon neutrality.

To its credit, Metro made efforts to reduce emissions from electricity consumption by implementing energy efficiency projects and purchasing renewable power credits from PGE and PacifiCorp. Metro could increase its efforts, however, to implement this requires Council direction. Our analysis indicated Metro offsets about 20% of its carbon emissions from electricity. These credits cost about \$56,000 per year, which added 2.4% to Metro's annual electricity costs. Metro could purchase renewable power credits to offset 100% of its electricity consumption. Purchasing these credits would offset 44% of Metro's total emissions, at a cost of about \$293,000 per year. Offsetting 100% would require an additional \$237,000 per year over current electricity costs, which is about 10% of Metro's annual cost for electricity. Such a purchase would require prioritizing carbon neutrality over other agency goals.

Metro was successful in reducing emissions from the St. Johns Landfill. There is a landfill gas collection system and Metro leases the gas to Portland LFC. Ash Grove Cement in turn purchases the gas from Portland LFC for use in its operations. In 2007, Ash Grove used about 48% of the gas generated at the landfill. The other 52% was flared at the landfill. If Ash Grove increased its use of landfill gas it could reduce up to 9,800 metric tons of Metro's carbon emissions. Landfill gas flaring accounted for 31% of Metro's total carbon emissions in 2007.

Another option to reduce Metro's emissions is to purchase offsets for natural gas consumption. NW Natural offers an offset program called Smart

Energy. OCC recently signed up for the program and will be purchasing credits to offset 100% of its natural gas use beginning in January 2009. Our analysis indicated it would cost an additional \$85,000 annually to offset 100% of Metro’s natural gas emissions. This represents a price premium of about 9% over current natural gas costs. Such a purchase would require Council direction.

Moving forward, Metro appears to have two complimentary strategies to target emissions from electricity, natural gas and landfill gas. One strategy focuses on reducing electricity and natural gas use by implementing energy efficiency projects and increasing the productive use of landfill gas rather than flaring. Another strategy involves increasing participation in offset programs for natural gas and electricity. Offsetting emissions from natural gas will cost Metro a little under \$20 per ton. Currently, Metro is paying on average a little over \$20 per ton to offset electricity emissions.

It is important to note that there appears to be a significant price difference between PGE and PacifiCorp offset programs. The majority of Metro’s offsets have been purchased through PacifiCorp. Our analysis indicates offsets from PacifiCorp are about \$7 cheaper than offsets from PGE on a per ton basis. Part of this price disparity is because the cost to offset electricity emissions decreases with the level of participation. Nonetheless, our analysis indicates that if Metro offset 100% of its electricity from each provider the cost per ton for PacifiCorp offsets would be about \$9 less expensive. This is important for strategy development because it might influence the relative trade-off between purchasing offsets and reducing consumption for electricity and natural gas.

**Exhibit 8**  
Offset program cost per ton

Program	Cost per metric ton	
	Current Levels	100% offset
PGE	\$26.20 (8.6% offset)	\$25.85
PacifiCorp	\$18.75 (30% offset)	\$16.67
NW Natural	\$19.71 (26% offset beginning in 2009)	\$19.71

Source: Auditor’s Office Analysis

**Facility-specific strategies**

In addition to prioritizing efforts based on the sources of emissions, Metro’s sustainability plan should include strategies to address the unique challenges at each facility. During the audit, we found sustainability efforts have not addressed facility specific approaches. Without a clear understanding of each facility’s resource use and management challenges, it will be difficult for Metro to meet its long-term goals.

The Zoo, Solid Waste facilities and MERC account for 94% of Metro’s carbon emissions. Reducing emissions from these facilities will be challenging. MERC and the Zoo include large indoor spaces for public use requiring heating and cooling throughout the year. As a result, electricity and natural gas consumption were significantly higher at these facilities than others.

OCC, which is part of MERC, offers an example of how the Zoo and other MERC facilities might address their sustainability challenges. OCC has completed energy efficiency projects and purchased offsets for 39% of its electricity and 100% of its natural gas consumption. They are considering options to let events pay to offset their emissions and working on putting solar panels on their roof to reduce emissions from electricity generation. PCPA is also considering purchasing offsets for natural gas consumption and has explored options to allow performers to offset the emissions from their events.

Based on the availability-control matrix and our analysis of Metro’s facilities and emission sources, the following priority areas and strategies for each facility may help focus efforts to reach the agency’s sustainability goals.

**Exhibit 9**  
Priority areas and possible strategies by facility

Facility	Priority Areas (% of facility emissions)	Possible Strategies
MRC	Electricity (65%)  Commuting	<ul style="list-style-type: none"> <li>• Increase offsets (currently purchasing credits for 32%)</li> <li>• Energy efficiency projects</li> <li>• Continue incentives for transit options</li> </ul>
Solid Waste	Landfill gas (81%)  Electricity (16%)	<ul style="list-style-type: none"> <li>• Increase use of landfill gas for industrial purpose</li> <li>• Energy efficiency projects</li> <li>• Increase offsets (currently purchasing credits for 30%)</li> </ul>
Regional Parks	Fleet fuel (45%) Recycling rate (low impact but important for regional leadership)	<ul style="list-style-type: none"> <li>• Continue efforts to reduce fleet fuel usage</li> <li>• Work with Sustainability Center and ENACT to increase recycling rates</li> </ul>
Zoo	Water (76% of all Metro water use) Electricity (55%) and natural gas (30%)	<ul style="list-style-type: none"> <li>• Explore water reduction/reuse options</li> <li>• Energy efficient projects</li> <li>• Purchase offsets</li> </ul>
OCC	Electricity (76%)  Natural gas (19%)  Recycling rate (low impact but important for regional leadership)	<ul style="list-style-type: none"> <li>• Increase offsets for electricity (currently purchasing credits for 39%)</li> <li>• Continue to purchase offsets for natural gas (starting Jan. 2009 will begin purchasing credits for 100%)</li> <li>• Work with Metro Sustainability Center to develop a plan to increase recycling rates</li> </ul>
Expo	Electricity (68%) and Natural gas (29%) Recycling rate (low impact but important for regional leadership)	<ul style="list-style-type: none"> <li>• Purchase offsets for electricity and natural gas</li> <li>• Energy efficiency projects</li> <li>• Work with Metro Sustainability Center to develop a plan to increase recycling rates</li> </ul>
PCPA	Electricity (63%) and Natural gas (27%)  Recycling rate (low impact but important for regional leadership)	<ul style="list-style-type: none"> <li>• Increase purchase offsets (currently purchasing credits for 9%)</li> <li>• Purchase offsets for natural gas</li> <li>• Energy efficiency projects</li> <li>• Work with Metro Sustainability Center to develop a plan to increase recycling rates</li> </ul>

Source: Auditor’s Office Analysis

**Use efforts to demonstrate leadership**

In the 2008 resolution, Metro Council instructed management to make sustainability the guiding principle for all its programs. As such, Metro has the opportunity to demonstrate successful sustainable business practices for the region. To provide this leadership, Metro will need to make sure it is meeting its goals and demonstrating cost-effective sustainability management.

During the audit, we found that there is a general belief that additional steps are needed to ensure that Metro is seen as a regional leader for sustainable operations. Metro's role in planning regional transportation, land use, and solid waste disposal provide ample opportunity to lead by example, yet there is a perception that the agency is not doing enough to "walk its talk." Without clear leadership, Metro risks losing credibility in the region which could undermine its ability to achieve its mission.

Reaching the long-term goals Metro has established for itself is one way to demonstrate leadership. Metro facilities, and the agency as a whole, are below the regional waste recovery goal. Even though emissions from solid waste are not a large component of Metro's carbon footprint, it is important for the agency to meet or exceed the regional goal.

Metro could also demonstrate leadership for sustainability management by publicizing the results of its pilot/demonstration projects on the web to help inform best practices for sustainability. Metro has implemented several innovative projects including the green roof at MRC, LEED certification at OCC, the landfill gas collection system at St. Johns Landfill, composting programs at MRC and OCC, and bonuses for reaching recycling goals in union contracts at OCC. Metro should make an effort to document the processes, challenges and successes, and results of these projects so that others can learn from Metro's innovative efforts.



## **RECOMMENDATIONS**



## Recommendations

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For Metro to provide regional leadership, demonstrate best management practices and meet its sustainability goals in a cost-effective way, the agency should address the following recommendations.

- 1. To develop clear policies and goals for agency sustainability;**
  - a. The Metro Council should specify the price premium it is willing to pay for sustainability activities related to its internal business operations.
  - b. Create an agency-wide sustainability plan that includes:
    1. Measurable short-term goals and objectives
    2. A strategy to prioritize, by facility and utility type, the highest impact areas
    3. Options to expand the use of landfill gas from St. Johns Landfill gas recovery system when the current lease agreement expires in 2012
    4. Strategies to ensure that Metro is meeting or exceeding regional recycling goals
- 2. To reduce organizational barriers, Metro should establish:**
  - a. Written roles and responsibilities for the various groups working on sustainability management at Metro (e.g. ENACT, Sustainability Coordinators, Green Teams and department managers).
  - b. A funding structure that enables effective sustainability management.
- 3. To ensure it has the tools needed to implement a sustainable business model, Metro should:**
  - a. Develop a data management system that can track the major sources of greenhouse gas emissions and water use.
  - b. Assess costs and potential economic and environmental benefits of sustainability activities.
  - c. Standardize the protocols used to estimate greenhouse gas emissions for internal operations and projects.
  - d. Utilize staff expertise and resources in the Sustainability Center to help managers develop strategies to increase recycling.
- 4. To measure progress towards meeting objectives and disseminate results of its efforts, Metro should:**
  - a. Issue regular sustainability reports.
  - b. Collect and analyze data to measure progress towards its sustainability goals.
  - c. Publish results of its innovative demonstration projects to help inform best practices for sustainability management and provide leadership in the region.





## **MANAGEMENT RESPONSE**





Date: Feb. 9, 2009

To: Suzanne Flynn, Metro Auditor

From: Michael Jordan, Chief Operating Officer  
Scott Robinson, Deputy Chief Operating Officer  
David Woolson, Chief Executive Officer, MERC  
Kathy Taylor, Chief Operating Officer, MERC  
Jim Desmond, Director, Sustainability Center  
Teri Dresler, Director, Parks and Environmental Services

CC: Matt Korot, Program Director, Resource Conservation & Recycling  
Molly Chidsey, Sustainability Coordinator

Re: Sustainability Management Audit

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This memorandum is management's response to the final audit report transmitted by your office on Jan. 23, 2009. We appreciate this thoughtful insight and recommendations as Metro builds a sustainability program for its operations.

After reviewing available data on resource use and investigating the methods by which Metro has managed its sustainability program for internal operations, the report finds that the program has made some progress toward sustainable operations. However, the primary conclusion is that a more focused, organized, and strategic approach is needed if Metro is to meet or exceed its goals and be a model for sustainable business operations.

We agree with this finding and believe that Metro's actions over the past year demonstrate that this approach is being implemented. The Metro Council's sustainability resolution in spring 2008, the creation of new Metro and Oregon Convention Center sustainability coordinator positions, and a number of other actions have positioned us to take significant steps to enhance the sustainability of Metro's operations.

### **Response to Recommendations in the Auditor's Report**

The following summarizes the Sustainability Center's response to the specific recommendations in the Auditor's report.

#### **Recommendation 1:**

To develop clear policies and goals for its sustainability:

- A. The Metro Council should specify the price premium it is willing to pay for sustainability activities related to its internal business operations.

#### ***Response:***

This recommendation is directed to the Metro Council. The Chief Operating Officer could provide the Council with information on the relative benefits and costs of specific sustainability activities that could assist Council in its decision-making. Given the variety of Metro operations, these benefits and costs may vary significantly by facility. For example, costs could be high to implement certain changes at some MERC facilities due to the relative age and condition of those facilities.

B. Create an agency-wide sustainability plan that includes:

1. Measurable short-term goals and objectives.

**Response:**

Metro, now staffed by Molly Chidsey, Metro's Sustainability Coordinator, is developing an agency-wide sustainability plan. This plan will include interim goals and objectives by which Metro can measure progress toward the Council-adopted goals.

2. A strategy to prioritize, by facility and utility type, the highest impact areas.

**Response:**

We agree that that the plan should prioritize the areas in which Metro's operations have the most significant environmental and sustainability impacts.

3. Options to expand the use of landfill gas from St. John's landfill gas recovery system.

**Response:**

Parks and Environmental Services will explore potential options when Metro's contract with Ash Grove Cement for use of the landfill gas expires in 2012.

4. Strategies to ensure that Metro is meeting or exceeding regional recycling goals.

**Response:**

The audit report notes a range of recycling performance across Metro's different facilities and locations. Actions taken during 2008 included completion of waste composition studies at several Metro locations. Waste reduction and recycling efforts can now be targeted to areas of greatest need. Metro and MERC staff will continue to work to implement the most effective best management practices to increase recycling levels at these locations and integrate waste reduction into the sustainability plan.

**Recommendation 2:**

To reduce organizational barriers, Metro should establish:

- A. Written roles and responsibilities for the various groups working on sustainability management at Metro (e.g. ENACT, Sustainability Coordinators, Green Teams and department managers).

**Response:**

We agree that roles should be more clearly defined. We can report that this work began with the hiring of Metro's Sustainability Coordinator in fall 2008 and will also be integrated into the sustainability plan.

- B. A funding structure that enables effective sustainability management.

**Response:**

The Chief Operating Officer will make funding recommendations to Council through the annual budget process.

**Recommendation 3:**

To ensure it has the tools needed to implement a sustainable business model, Metro should:

- a. Develop a data management system that can track the major sources of greenhouse gas emissions and water use.

***Response:***

As part of Metro's climate initiative work, the Research Center is developing greenhouse gas emission models and data management systems that will also be applicable to Metro's internal operations. We will look into the feasibility of an analogous system for water use.

- b. Assess costs and potential economic and environmental benefits of sustainability activities.

***Response:***

The intent of the sustainability plan under development is to provide a framework in which to prioritize actions Metro can take to improve its operations. This prioritization will necessarily include an assessment of relative benefits and costs.

- c. Standardize the protocols used to estimate GHG emissions for internal operations and projects.

***Response:***

This will be achieved as a result of the work that the Research Center is doing on Metro's climate initiative.

- d. Utilize staff expertise and resources in the Sustainability Center to help managers develop strategies to increase recycling.

***Response:***

We agree that expertise of Metro staff should be tapped. To this end, Metro's new Sustainability Coordinator is placed in the Resource Conservation and Recycling section of the Sustainability Center. Participation on this team will ensure that internal operations mirror Metro's programs for influencing behavior change toward recycling and sustainable practices in the region.

**Recommendation 4:**

To measure progress towards meeting objectives and disseminate results of its efforts, Metro should:

- a. Issue regular sustainability reports.
- b. Collect and analyze data to measure progress towards its sustainability goals.

***Response:***

The Sustainability Center will coordinate the collection and analysis of data from all Metro departments and facilities, and provide a sustainability status report to Council on an annual basis.

- c. Publish results of its innovative demonstration projects on the web to help inform best practices for sustainability management and provide leadership in the region.

***Response:***

Agreed.



## **APPENDIX**

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# APPENDIX

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### I. Greenhouse Gas Inventory

#### A. Determining Metro’s Organizational Boundaries

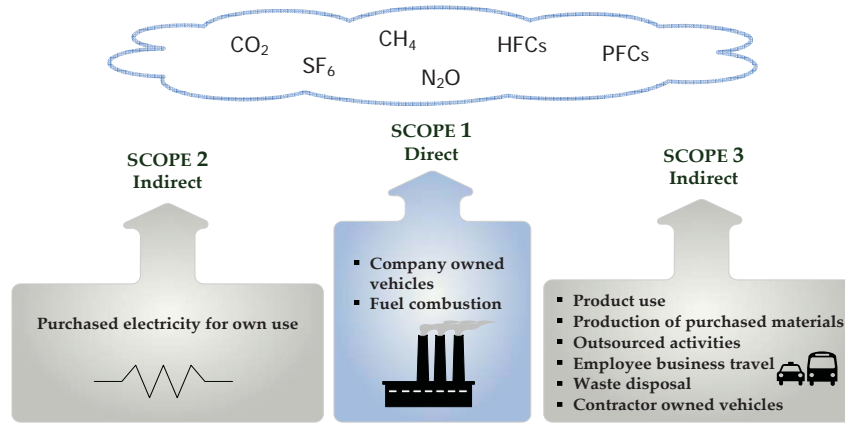
Metro owns and operates office buildings, a convention center, an exposition center, performing arts venues, a zoo, regional parks, cemeteries, solid waste transfer facilities, a paint recycling center, and a landfill. Each of these facilities generates carbon emissions. According to best practices<sup>1</sup>, it is important to identify the sources of emissions and choose a scope for accounting and reporting emissions. Scopes are typically grouped into three categories.

- Scope 1:** All direct greenhouse gas (GHG) emissions (with the exception of direct CO<sub>2</sub> emissions from biogenic sources).
- Scope 2:** Indirect GHG emissions associated with the consumption of purchased or acquired electricity, steam, heating, or cooling.
- Scope 3:** All other indirect emissions not covered in Scope 2, such as emissions resulting from the extraction and production of purchased materials and fuels, transport-related activities in vehicles not owned or controlled by the reporting entity (e.g. employee commuting and business travel), outsourced activities, waste disposal, etc.

Together, the three scopes provide a comprehensive accounting framework for managing and reducing direct and indirect emissions.

<sup>1</sup> ICLEI-Local Governments for Sustainability, “Local Government Operations Protocol” (September 2008, Version 1)  
<http://www.icleiusa.org/programs/climate/ghg-protocol>

**Exhibit 10**  
Overview of scopes  
and emission sources



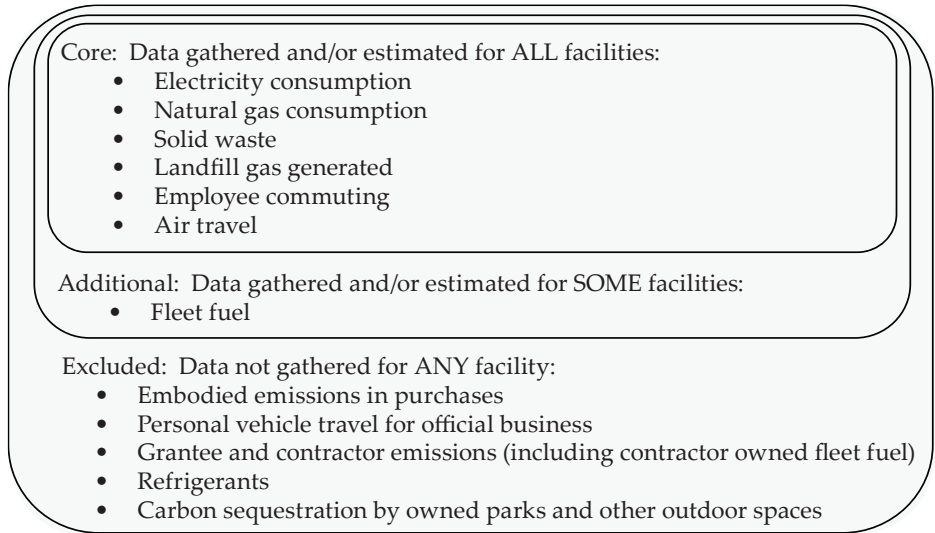
Source: Derived from the WRI/WECS D GHG Protocol Corporate Standard, Chapter 4 (2004)

Our analysis attempted to estimate all three scopes but due to data limitations, we were unable to estimate some emissions in scope three, like production of purchased materials and contractor owned vehicles. It is also important to note that inventory focused exclusively on CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O emissions. We were unable to get reliable data for other greenhouse gas emissions like SF<sub>6</sub>, HFCs and PFCs. Below is a summary of the Metro facilities used to set the organizational boundary for our analysis.

**Exhibit 11**  
Facilities included in  
GHG inventory

Facility Name	Facility Description
Metro Regional Center	Office building
Solid Waste Processing Facilities	Transfer facilities (South and Central) Hazardous waste processing (South and Central) Paint Recycling (Metro Paint) St. Johns Landfill
Regional Parks	Oxbow Blue Lake Smith and Bybee Lakes Mt. Talbert Nature Park Howell Territorial Park Beggars-tick Wildlife Refuge Glendoveer Golf Course Boating facilities Pioneer Cemeteries Native Plant Center
Oregon Convention Center	Largest convention center in the Pacific Northwest
Portland Metropolitan Exposition Center	Seven multi-purpose event halls
Portland Center for the Performing Arts	Arlene Schnitzer Concert Hall Keller Auditorium Newmark Theatre Dolores Winningstad Theatre
Oregon Zoo	64 acre zoo

**Exhibit 12**  
Metro greenhouse gas  
inventory boundaries



**B. Time frame for data sources**

To make comparisons among sources of greenhouse gas generation, data on utility use was collected for use in this report. For emissions sources for air travel and solid waste, data from fiscal year 2007 was used. Water data used in this report is also from fiscal year 2007.

For the following sources, data was not available for fiscal year 2007, and calendar year 2007 data was used:

- Electricity
- Natural gas
- Fleet fuel
- St. Johns Landfill

The commute estimate was based on the employee list as of October 6, 2008.

**C. Emissions from Natural Gas**

The methodology used to estimate emissions from Metro’s natural gas consumption is based on ICLEI’s Local Government Operations Protocol (September 2008, Version 1) using data from NW Natural.

Data was collected from NW Natural for Metro’s accounts at the following facilities:

- MRC
- Zoo
- Metro Paint
- OCC
- Expo
- Howell Territorial Park
- PCPA
- Glendoveer Golf Course

<sup>2</sup> Diagram adapted from “Oregon University System Greenhouse Gas Inventory” (July 2007).  
[http://www.oregon.gov/ENERGY/GBLWRM/docs/OUS\\_GHG\\_Inventory.pdf](http://www.oregon.gov/ENERGY/GBLWRM/docs/OUS_GHG_Inventory.pdf)

The following steps were completed using the data supplied by NW Natural. The steps are based on ICLEI Protocol 6.1.1 Recommended Approach.

**Step 1: Determine annual consumption of each fuel combusted at your facilities.** Note: NW Natural data was in therms. Converted therms to MMBtus using Equation 6.14 from ICLEI’s Protocol.

<b>Equation 6.14</b>	Converting steam consumption from therms to MMBtu
Energy Consumption (MMBtu)	= Energy Consumption (therms) x 0.1 (MMBtu/therm)

**Step 2: Select the appropriate CO<sub>2</sub> emission factor for each fuel.**

*Factor for fossil fuel combustion (ICLEI Table G.1)*

Fuel type	CO <sub>2</sub> emission factor (per united energy)
Natural gas (by heat content)	kgCO <sub>2</sub> /MMBtu
Weighted U.S. Avg	53.06

**Step 3: Determine the appropriate CH<sub>4</sub> and N<sub>2</sub>O emission factors for each fuel.**

*Factors by fuel type and sector (ICLEI Table G.3)*

Fuel type / End-use Sector	CH <sub>4</sub> (g/MMBtu)	N <sub>2</sub> O (g/MMBtu)
Natural gas		
Commercial/Institutional	5	0.1

Note: “For most local government operations, you will use the “commercial/institutional” sector emissions factors.”

**Step 4: Calculate each fuel’s CO<sub>2</sub> emissions and convert to metric tons.**

<b>Equation 6.2</b>	Calculating CO <sub>2</sub> emissions from stationary combustion (fuel use in gallons)
<b>Fuel A CO<sub>2</sub> Emissions</b> (metric tons) = Fuel Consumed (gallons) x Emission Factor (kg CO <sub>2</sub> /gallon) ÷ 1,000 (kg/metric ton)	
<b>Fuel B CO<sub>2</sub> Emissions</b> (metric tons) = Fuel Consumed (gallons) x Emission Factor (kg CO <sub>2</sub> /gallon) ÷ 1,000 (kg/metric ton)	
<b>Total Emissions</b> (metric tons) = CO <sub>2</sub> from Fuel A (metric tons) + CO <sub>2</sub> from Fuel B (metric tons) + . . . (metric tons)	

<sup>3</sup> Available online at <http://www.icleiusa.org/programs/climate/ghg-protocol>.

**Step 5: Calculate each fuel's CH<sub>4</sub> and N<sub>2</sub>O emissions and convert to metric tons.**

<b>Equation 6.3</b>	Calculating CH <sub>4</sub> emissions from stationary combustion
<b>Fuel/Sector A</b>	CH <sub>4</sub> Emissions = Fuel Use x Emission Factor ÷ 1,000,000 (metric tons) (MMBtu) (g CH <sub>4</sub> /MMBtu) (g/metric ton)
<b>Fuel/Sector B</b>	CH <sub>4</sub> Emissions = Fuel Use x Emission Factor ÷ 1,000,000 (metric tons) (MMBtu) (g CH <sub>4</sub> /MMBtu) (g/metric ton)
<b>Total CH<sub>4</sub> Emissions</b>	(metric tons) = CH <sub>4</sub> from Type A + CH <sub>4</sub> from Type B + ... (metric tons) (metric tons) (metric tons)

<b>Equation 6.4</b>	Calculating N <sub>2</sub> O emissions from stationary combustion
<b>Fuel/Sector A</b>	N <sub>2</sub> O Emissions = Fuel Use x Emission Factor ÷ 1,000,000 (metric tons) (MMBtu) (g N <sub>2</sub> O/MMBtu) (g/metric ton)
<b>Fuel/Sector B</b>	N <sub>2</sub> O Emissions = Fuel Use x Emission Factor ÷ 1,000,000 (metric tons) (MMBtu) (g N <sub>2</sub> O/MMBtu) (g/metric ton)
<b>Total N<sub>2</sub>O Emissions</b>	(metric tons) = N <sub>2</sub> O from Type A + N <sub>2</sub> O from Type B + ... (metric tons) (metric tons) (metric tons)

**Step 6: Convert CH<sub>4</sub> and N<sub>2</sub>O emissions to units of CO<sub>2</sub> equivalent and determine total emissions from stationary combustion.**

<b>Equation 6.5</b>	Converting to CO <sub>2</sub> e and determining total emissions
<b>CO<sub>2</sub> Emissions</b>	= CO <sub>2</sub> Emissions x 1 (metric tons CO <sub>2</sub> e) (metric tons) (GWP)
<b>CH<sub>4</sub> Emissions</b>	= CH <sub>4</sub> Emissions x 21 (metric tons CO <sub>2</sub> e) (metric tons) (GWP)
<b>N<sub>2</sub>O Emissions</b>	= N <sub>2</sub> O Emissions x 310 (metric tons CO <sub>2</sub> e) (metric tons) (GWP)
<b>Total Emissions</b>	= CO <sub>2</sub> + CH <sub>4</sub> + N <sub>2</sub> O (metric tons CO <sub>2</sub> e) (metric tons CO <sub>2</sub> e)

**D. Emissions from Electricity**

The methodology used to estimate emissions from Metro's electricity consumption is based ICLEI's Local Government Operations Protocol (September 2008, Version 1) using data from Portland General Electric (PGE) and PacifiCorp (the parent company of PacificPower). Data was collected for Metro's accounts at the following facilities:

PGE	PacifiCorp
<ul style="list-style-type: none"> <li>Regional Parks</li> <li>Solid Waste</li> <li>Expo Center</li> <li>Zoo</li> </ul>	<ul style="list-style-type: none"> <li>Metro Regional Center</li> <li>PCPA</li> <li>OCC</li> </ul>

The following steps were completed using the data supplied by PGE and PacifiCorp. The steps are based on ICLEI Protocol 6.2.1 Recommended Approach.

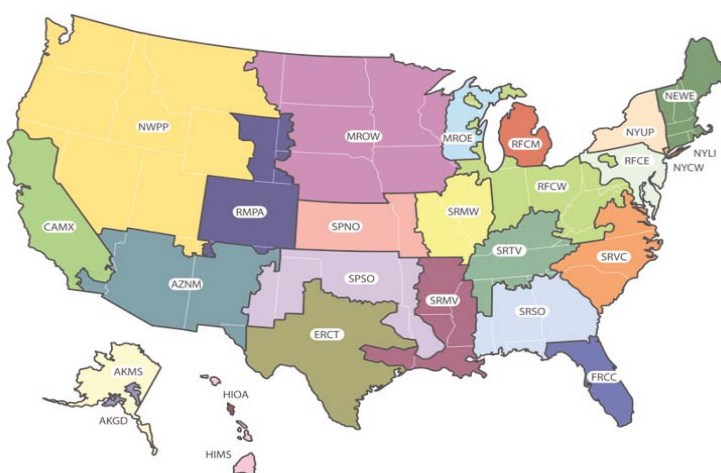
**Step 1: Determine annual electricity consumption.**

Note: Data from PGE and PacifiCorp was provide in units of kilowatt hours (kWh) which were converted to megawatt hours (MWh) by dividing kWh by 1,000.

**Step 2: Select appropriate emission factors.**

Note: Emissions factors for electricity consumption are based on the methods used to generate electricity (e.g. hydropower, coal, wind etc.). EPA estimates emissions factors by region based on the mix of electricity generation methods used in that region. Below is a map of the EPA subregions followed by a table of emissions factors for subregion NWPP, which includes all of Oregon.

eGRID Subregions (ICLEI Figure G.1)



Source: ICLEI, "Local Government Operations Protocol" (September 2008, Version 1)

eGRID Electricity Emission Factors (ICLEI Table G.7)

Map No.	eGrid 2006 Subregion	eGrid 2006 Sub-region name	Carbon Dioxide (CO <sub>2</sub> )	Methane (CH <sub>4</sub> )	Nitrous Oxide (N <sub>2</sub> O)
21	NWPP	WECC Northwest	921.1	0.022	1.3

**Step 3: Determine total annual emissions.**

Equation 6.8	Calculating indirect emissions from electricity use
CO <sub>2</sub> Emissions (metric tons) = Electricity Use x Emission Factor ÷ 2,204.62 (MWh) (lbs CO <sub>2</sub> /MWh) (lbs/metric ton)	
CH <sub>4</sub> Emissions (metric tons) = Electricity Use x Emission Factor ÷ 2,204.62 (MWh) (lbs CH <sub>4</sub> /MWh) (lbs/metric ton)	
N <sub>2</sub> O Emissions (metric tons) = Electricity Use x Emission Factor ÷ 2,204.62 (MWh) (lbs N <sub>2</sub> O/MWh) (lbs/metric ton)	

**Step 4: Convert total annual emission to metric tons of carbon dioxide equivalent.**

Equation 6.9	Converting to CO <sub>2</sub> equivalent and determining total emissions	
CO <sub>2</sub> Emissions (metric tons CO <sub>2</sub> e)	=	CO <sub>2</sub> Emissions (metric tons) x 1 (GWP)
CH <sub>4</sub> Emissions (metric tons CO <sub>2</sub> e)	=	CH <sub>4</sub> Emissions (metric tons) x 21 (GWP)
N <sub>2</sub> O Emissions (metric tons CO <sub>2</sub> e)	=	N <sub>2</sub> O Emissions (metric tons) x 310 (GWP)
<b>Total Emissions</b> (metric tons CO <sub>2</sub> e)	=	CO <sub>2</sub> + CH <sub>4</sub> + N <sub>2</sub> O (metric tons CO <sub>2</sub> e)

**E. Emissions from Fleet Fuel**

The methodology used to estimate emissions from Metro’s fleet fuel consumption (i.e. mobile sources) is based on ICLEI’s Local Government Operations Protocol (September 2008, Version 1) using data from the following sources:

**Exhibit 13**  
Fleet fuel types and sources by facility

Facility	Fuel Type	Data Sources
Metro Regional Center	<ul style="list-style-type: none"> <li>• Diesel</li> <li>• Gasoline</li> <li>• Ethanol (E10)</li> <li>• Ethanol (E85)</li> </ul>	<ul style="list-style-type: none"> <li>• Voyager card</li> <li>• State of Oregon, Dept of Administrative Services</li> </ul>
Zoo	<ul style="list-style-type: none"> <li>• Diesel</li> <li>• Gasoline</li> <li>• Propane</li> </ul>	<ul style="list-style-type: none"> <li>• AmeriGas Propane</li> <li>• Don Thomas Petroleum</li> </ul>
OCC	<ul style="list-style-type: none"> <li>• Diesel</li> <li>• Gasoline</li> <li>• Propane</li> </ul>	<ul style="list-style-type: none"> <li>• Transaction receipts</li> </ul>
Expo	<ul style="list-style-type: none"> <li>• Diesel</li> <li>• Ethanol (E10)</li> <li>• Ethanol (E8)</li> <li>• Biodiesel (B5)</li> </ul>	<ul style="list-style-type: none"> <li>• Star Oil Company</li> </ul>
Parks	<ul style="list-style-type: none"> <li>• Diesel</li> <li>• Gasoline</li> <li>• Biodiesel (B20)</li> <li>• Motor oil</li> </ul>	<ul style="list-style-type: none"> <li>• Don Thomas Petroleum</li> <li>• Multnomah County</li> <li>• Voyager card</li> </ul>
Solid Waste	<ul style="list-style-type: none"> <li>• Diesel</li> <li>• Gasoline</li> <li>• Ethanol (E10)</li> <li>• Ethanol (E8)</li> <li>• Biodiesel (B20)</li> <li>• Biodiesel (B5)</li> <li>• Propane</li> </ul>	<ul style="list-style-type: none"> <li>• FerrellGas Propane</li> <li>• Don Thomas Petroleum</li> <li>• Star Oil Company</li> <li>• PetroCard</li> <li>• Legacy Propane</li> </ul>

*Note:* Obtaining fuel consumption data was challenging. Each Metro facility has a slightly different method for purchasing fuel and no facilities appear to be actively tracking their fuel consumption. The accounting systems used to track and pay for fuel varies by department/facility and within departments. In some cases fuel is purchased by individuals using procurement cards or fuel cards (e.g. Voyager, PetroCard) while at others fuel is delivered on site (e.g. Solid Waste, Parks). The process is further complicated because some MRC vehicles are billed through the State of Oregon and some Parks vehicles are billed through Multnomah County. Another complication is that fuel vendors vary by facility so obtaining data for a given period of time requires contacting multiple providers for each facility.



Another challenge was determining how complete and accurate the records were for each facility. Without a detailed vehicle and equipment inventory, it is difficult to know the type of fuel that is used by each asset. To overcome this challenge, expenditure data from Metro’s PeopleSoft accounting system was used to determine the vendor names associated with fuel and lubricant purchases over the last two years. Depending on how the purchases are coded, it is possible that some vendors were not identified using this method. For example, fuel and lubricants are purchased for Parks vehicles, but they are billed through vendor Multnomah County. Conversely, Solid Waste purchases fuel and lubricants for its contracted haulers but these costs are passed on to the contractor. We did not use this method for MERC facilities (OCC, PCPA and Expo) because they use a different accounting system (EBMS) which was not readily accessible. The fleet at these facilities appears to be relatively small. No data was readily available for PCPA. As a result, it is possible that fleet fuel emissions are underestimated for MERC facilities.

The following steps were completed using the data detailed above. The steps are based on ICLEI Protocols: 7.1.1.1 Recommended Approach; 7.1.2 CO<sub>2</sub> Emissions from Vehicles Combusting Biofuels; and 7.1.3.1 Recommended Approach.

**Step 1: Identify total annual fuel consumption by fuel type.**

**Step 2: Determine the appropriate CO<sub>2</sub> emission factor for each fuel.**

*Factors for Transport Fuels (ICLEI Table G.9)*

Fuel Type	Carbon content (per unit energy)	Heat content	Fraction oxidized	CO <sub>2</sub> emission factor (per unit volume)
Fuels measured in gallons	kg C/MMBtu	MMBtu / barrel		kg CO <sub>2</sub> / gallon
Crude oil	20.33	5.8	1	10.29
Disel fuel No. 1 and 2	19.95	5.825	1	10.15
Propane	17.2	3.824	1	5.74
Motor gasoline	19.33	5.218	1	8.81
<b>Non-fossil fuels</b>	<b>kg C/MMBtu</b>	<b>MMBtu / barrel</b>		<b>kgCO<sub>2</sub> / gallon</b>
Biodiesel (B100) +	N/A	N/A	1	9.46
Ethanol (E100) +	17.99	3.539	1	5.56

**Step 3: Calculate CO<sub>2</sub> emissions and convert to metric tons.**

Equation 7.2	Calculating CO <sub>2</sub> emissions from mobile combustion
	<b>Fuel A CO<sub>2</sub> Emissions</b> (metric tons) = Fuel Consumed x Emission Factor ÷ 1,000 (gallons) (kg CO <sub>2</sub> /gallon) (kg/metric ton)
	<b>Fuel B CO<sub>2</sub> Emissions</b> (metric tons) = Fuel Consumed x Emission Factor ÷ 1,000 (gallons) (kg CO <sub>2</sub> /gallon) (kg/metric ton)
	<b>Total CO<sub>2</sub> Emissions</b> (metric tons) = CO <sub>2</sub> from Fuel A + CO <sub>2</sub> from Fuel B + . . . (metric tons) (metric tons) (metric tons)

**Step 4: Identify the vehicle type, fuel type, and technology type or model year of all the vehicles you own and operate.**

*Note:* This was the final step completed for the majority of Metro’s emissions from fleet fuel consumption. As a result our emissions estimates for fleet fuel are in metric tons of CO<sub>2</sub>, not CO<sub>2</sub>e. Data for miles driven by vehicle type is required to calculate CO<sub>2</sub>e resulting from N<sub>2</sub>O and CH<sub>4</sub> emissions. We were only able to calculate N<sub>2</sub>O and CH<sub>4</sub> emissions for Metro’s fleet that is leased through the State of Oregon due to insufficient data related to miles traveled and vehicle type. Our estimates for N<sub>2</sub>O and CH<sub>4</sub> emissions indicate that these two emissions sources account for about 3% of CO<sub>2</sub>e emissions for this subset of Metro’s fleet. As result, we may have underestimated fleet fuel emissions by up to 3%.

**Step 5: Identify the annual mileage by vehicle type.**

**Step 6: Select the appropriate emission factor for each vehicle type.**

*Factors for Highway Vehicles by Model Year (ICLEI Table G.10)*

Vehicle Type	Year	N <sub>2</sub> O (g/mi)	CH <sub>4</sub> (g/mi)
<b>Gasoline passenger cars</b>			
Model Years	1984-1993	0.0647	0.0704
Model Year	1994	0.056	0.0531
Model Year	1995	0.0473	0.0358
Model Year	1996	0.0426	0.0272
Model Year	1997	0.0422	0.0268
Model Year	1998	0.0393	0.0249
Model Year	1999	0.0337	0.0216
Model Year	2000	0.0273	0.0178
Model Year	2001	0.0158	0.011
Model Year	2002	0.0153	0.0107
Model Year	2003	0.0135	0.0114
Model Year	2004	0.0083	0.0145
Model Year	2005	0.0079	0.0147
<b>Gasoline light trucks (vans, pickup trucks, SUV’s)</b>			
Model Year	1987-1993	0.1035	0.0813
Model Year	1994	0.0982	0.0646
Model Year	1995	0.0908	0.0517
Model Year	1996	0.0871	0.0452
Model Year	1997	0.0871	0.0452
Model Year	1998	0.0728	0.0391
Model Year	1999	0.0564	0.0321
Model Year	2000	0.0621	0.0346
Model Year	2001	0.0164	0.0151
Model Year	2002	0.0228	0.0178
Model Year	2003	0.0114	0.0155
Model Year	2004	0.0132	0.0152
Model Year	2005	0.0101	0.0157
<b>Diesel passenger cars</b>			
Model Year	1960-1982	0.0012	0.0006
Model Year	1983-2004	0.001	0.0005
<b>Diesel light trucks</b>			
Model Year	1960-1982	0.0017	0.0011
Model Year	1983-1995	0.0014	0.0009
Model Year	1996-2004	0.0015	0.001

**Step 7: Calculate CH<sub>4</sub> and N<sub>2</sub>O emissions by vehicle type and sum to obtain total CH<sub>4</sub> and N<sub>2</sub>O emissions.**

<b>Equation 7.6</b>	Calculating CH <sub>4</sub> emissions from mobile combustion
<b>Vehicle Type A CH<sub>4</sub> Emissions</b> (metric tons) = Annual Distance x Emission Factor ÷ 1,000,000 (miles) (g CH <sub>4</sub> /mile) (g/metric ton)	
<b>Vehicle Type B CH<sub>4</sub> Emissions</b> (metric tons) = Annual Distance x Emission Factor ÷ 1,000,000 (miles) (g CH <sub>4</sub> /mile) (g/metric ton)	
<b>Total CH<sub>4</sub> Emissions</b> = CH <sub>4</sub> from Type A + CH <sub>4</sub> from Type B + . . . (metric tons) (metric tons) (metric tons)	

<b>Equation 7.7</b>	Calculating N <sub>2</sub> O emissions from mobile combustion
<b>Vehicle Type A N<sub>2</sub>O Emissions</b> (metric tons) = Annual Distance x Emission Factor ÷ 1,000,000 (miles) (g N <sub>2</sub> O/mile) (g/metric ton)	
<b>Vehicle Type B N<sub>2</sub>O Emissions</b> (metric tons) = Annual Distance x Emission Factor ÷ 1,000,000 (miles) (g N <sub>2</sub> O/mile) (g/metric ton)	
<b>Total N<sub>2</sub>O Emissions</b> = N <sub>2</sub> O from Type A + N <sub>2</sub> O from Type B + . . . (metric tons) (metric tons) (metric tons)	

**Step 8: Convert CH<sub>4</sub> and N<sub>2</sub>O emissions to units of CO<sub>2</sub> equivalent and determine total emissions from mobile combustion.**

<b>Equation 7.8</b>	Converting to CO <sub>2</sub> equivalent and determining total emissions
<b>CO<sub>2</sub> Emissions</b> (metric tons CO <sub>2</sub> e) =	CO <sub>2</sub> Emissions x 1 (metric tons) (GWP)
<b>CH<sub>4</sub> Emissions</b> (metric tons CO <sub>2</sub> e) =	CH <sub>4</sub> Emissions x 21 (metric tons) (GWP)
<b>N<sub>2</sub>O Emissions</b> (metric tons CO <sub>2</sub> e) =	N <sub>2</sub> O Emissions x 310 (metric tons) (GWP)
<b>Total Emissions</b> (metric tons CO <sub>2</sub> e) =	CO <sub>2</sub> + CH <sub>4</sub> + N <sub>2</sub> O (metric tons CO <sub>2</sub> e)

## F. Emissions from St. Johns Landfill

Two estimates of the greenhouse gases produced by the St. Johns Landfill were reviewed. One was prepared by Rob Smoot, a Senior Engineer in Metro's Parks and Environmental Services, and the other by David Allaway, Senior Policy Analyst at the Oregon State Department of Environmental Quality. The estimate prepared by Rob Smoot was used in the analysis because it was supported by a more comprehensive explanation of how it was calculated than the estimate from David Allaway. However, the estimate from David Allaway is also presented here in order to provide a complete representation of the available data.

**Exhibit 14**  
Comparison of  
emission estimates

	Smoot estimate (metric tons CO <sub>2</sub> equivalent)	Allaway estimate (metric tons CO <sub>2</sub> equivalent)
Flare emissions	9,807	9,807 (from Smoot estimate)
Fugitive emission	~ 0	19,192
Total emissions from St. Johns Landfill in calendar year 2007	9,807	28,999

The following description of the landfill gas collection system used at St. Johns Landfill is taken from Metro's brochure: *Fueling the Future: St. Johns gas pipeline*.

"The landfill gas is kept from escaping into the atmosphere by creating a vacuum beneath the landfill cover and drawing out the gas through a network of vertical and horizontal (trench) wells. Each of the wells is connected by a web of pipelines to the motor blower/flare facility, which creates the vacuum. Metro began collecting and flaring gas from the landfill in 1993.

The landfill cover includes a plastic cap, which prevents air from infiltrating the landfill as the gas is removed and creating a condition in which underground fires can start. The cap also prevents rainwater from leaching contaminants into groundwater.

Most of the wells are drilled to the bottom of the refuse, while horizontal wells are constructed in the top few feet of the waste. The spacing and location of the wells efficiently removes gas from all areas of the landfill.

Moisture is removed from the landfill gas by collecting "condensate" at low points throughout the landfill and at tanks at the motor blower/flare facility. If the moisture was not removed, it would block the flow of gas. The blowers move the gas to the compressor station, where the gas is compressed and chilled to remove any remaining moisture before entering the pipeline: A dedicated 9,400-foot pipeline delivers the gas to Ash Grove Cement Co., almost two miles away."

**Metro estimate**

Rob Smoot, the engineer with the Solid Waste department, estimated that the total amount of gas collected at St. Johns Landfill was 399,798,720 cubic feet. 193,232,922 cubic feet was sent to Ash Grove Cement, and the remainder, 206,565,798 was burned at the flare facility.

**Exhibit 15**  
Gas allocation at  
St. Johns Landfill

Metro 2007		Ash Grove 2007		Flared 2007	
gas (CF)	methane (CF)	gas (CF)	methane (CF)	gas (CF)	methane (CF)
399,798,720	201,936,257	193,232,922	110,143,517	206,656,798	91,792,1740

Based on those measurements, he estimates that the flare facility produced 9,807 metric tons (CO<sub>2</sub> equivalent) during calendar year 2007.

**Exhibit 16**  
CO<sub>2</sub> equivalence  
calculation

Volume	Description
399,798,720	cubic feet(cf) landfill gas generated in 2007
193,232,922	cf gas to Ash Grove in 2007
206,565,798	cf gas to flare in 2007
50%	approximate methane in landfill gas
103,282,899	cf methane flared in 2007
1.7	CO <sub>2</sub> factor
175,580,929	cf CO <sub>2</sub> from flared landfill gas in 2007
0.116	lbs. CO <sub>2</sub> per cubic foot
20,367,388	lbs. CO <sub>2</sub> from flared landfill gas in 2007
0.00002	lbs. NOx per cf landfill gas flared
4.214	lbs. NOx from flared landfill gas in 2007
296.0	CO <sub>2</sub> equivalence per NOx
1,247,327	lbs. CO <sub>2</sub> equivalence from NOx
9,807	metric tons of CO <sub>2</sub> equivalence from landfill flare in 2007

Rob Smoot supplied the following additional notes to support his calculations:

One mole of methane, CH<sub>4</sub>, burns in air to form one mole of carbon dioxide, CO<sub>2</sub>, plus two moles of water, 2H<sub>2</sub>O, plus 7.53 moles of nitrogen, N<sub>2</sub>.

If all the methane in the landfill gas is burned an equal volume of carbon dioxide will be created.

Landfill gas is about 50% methane and 35% carbon dioxide. If this ratio stays the same, then carbon dioxide is about 70% of the value of the methane in landfill gas. Therefore the volume of carbon dioxide created by burning landfill gas is about 1.7 times its methane content.

Nitrogen oxides also contribute to greenhouse gas at about 296 CO<sub>2</sub> equivalence per NOx (from EPA website). The emission factor for NOx creation in burning landfill gas is 2.04 x 10<sup>-5</sup> pounds per cf of landfill gas burned (from source testing).

**Allaway estimate**

David Allaway is a Senior Policy Analyst of the Oregon Department of Environmental Quality Solid Waste Policy & Program Development division. The main difference between his estimate and the one provided by Robert Smoot is how fugitive emissions are treated. Mr. Smoot believes that the gas capture system gets most of the gas generated by the landfill and that gas that escapes into the atmosphere (beyond the gas burned in the flare facility) is negligible. Mr. Allaway believes that about 30% of the greenhouse gases generated from landfills escape into the atmosphere as fugitive emissions. This assumption was developed by DEQ based on a combination of gas collection reports, modeled generation rates, and the professional judgment by DEQ staff. He stated that this assumption is used in and is consistent with the State’s Greenhouse Gas Emissions Inventory. Mr. Allaway estimated that in 2007, an additional 1,048 short tons of methane were emitted from the St. Johns Landfill. This converts to 22,015.54 short tons carbon equivalent, using the conversion factor of 21. The conversion factor of 0.90718474 was used to convert this number to 19,192 metric tons (CO<sub>2</sub> equivalent).

### G. Emissions from employee commuting

Greenhouse gases generated by employee commuting during one year were estimated using the following method:

1. Audit staff requested and received a list of employee addresses from Metro Human Resources. This file was a one-day snapshot of all Metro employees as of October 6, 2008. Measures were taken to maintain employee confidentiality.
2. Addresses for work sites were determined. Geographically central locations were used in place of a work site address in cases where the employees typically report to more than one work site (Pioneer Cemeteries, PCPA, and Demonstration Garden).
3. Audit staff requested assistance from the Data Resource Center to determine the distances between work facilities and home addresses. Planning Department staff generated a file of commute distances using the home and work addresses with Metro's travel model. This model currently uses 1998 transportation analysis zones (TAZs) to represent the four metro area counties (Clackamas, Multnomah, Washington, Clark). Distances were extracted from Metro's 2005 model by associating employee residences and worksites with the TAZs in which they are located. Trip distances were calculated from the shortest path, in miles, between employee residence TAZs and worksite TAZs.
4. There were several addresses for which trip distances could not be calculated using the above method. Audit staff used Google Maps to obtain travel distance for these addresses. In cases where only post office boxes or out-of-state addresses were available, the average commute distance for all other employees at that site was used, since that is likely to be closer to the actual commute distance than zero.
5. Adjustments for seasonal Zoo workers were made based on information provided by Zoo staff (377 out of the 745 Zoo employees in the file were seasonal employees who work an average of 68.32 days per year, and 49% of them use mass transit to get to work). Zoo staff also provided estimates of employee bicycle commuting to the Zoo.
6. An adjustment to trip distances was made for the estimated percentage of employees who commute by bicycle. This was based on commute percentages from 2005 American Community Survey, US Census Bureau. Other estimates of bicycle commuting (for example, the Lloyd District TMA estimate) were not judged to be sufficiently accurate to use, except in the case of the Zoo, who had year-round estimates of commute mode.
7. Audit staff used survey results and raw data from the MRC transportation surveys from the Lloyd District Transportation Management Association along with census information to estimate the proportion of people using 2 and 3 person carpools. This information was not used to estimate overall proportions of bike and carpool commuters, since it estimated percentages of employees at MRC only, and only for one week during the month of June. The census estimate was judged to be more accurate and reliable. Adjustments were made to the total commute distance for carpool users as follows:
  - a. The percentage of Portland commuters using carpools from the 2005 American Community Survey (US Census Bureau) was 10.4%.
  - b. The percentage of Metro Regional Center commuters from the 2007 Lloyd District TMA survey was 8.9% for 2-person carpools and 2.4% for 3-person carpools.

- c. The Lloyd TMA proportions of 2- and 3-person carpools was used to apportion the census estimate for general carpooling into those two groups was used to get a more accurate estimate of carpool commute distances as follows.

Taken together, the 2- and 3-person carpool users added up to 11.3% (from Lloyd TMA survey)

$$8.9\% + 2.4\% = 11.3\%$$

Out of the 10.4% that use carpools (from Census data), the proportion of them that used 2-person carpools is:

$$\frac{(8.9\% \times 10.4\%)}{11.3\%} = 8.19\%$$

The balance of the 10.4% of carpoolers (3-car carpools) is:

$$10.4\% - 8.19\% = 2.21\%$$

This results in an estimate of 8.9% of employees using 2-person carpools and 2.21% of employees using 3-person carpools.

- 8. An estimate of the daily round trip distance for all employees at each site was made by doubling the calculated distance between the home address and the work site.
- 9. Based on the estimated number of miles travelled, daily fuel consumption was estimated using a fuel efficiency of 22.4 mpg based on information from the Bureau of Transportation Statistics.
- 10. Based on that estimate of fuel consumption, daily greenhouse gas generation was estimated using the ICLEI Model for Local Governments. This included:
  - a) an estimate of CO<sub>2</sub> emissions (kg) at 8.81 kg per gallon of gasoline used
  - b) an estimate of CH<sub>4</sub> (methane) emissions at 0.041901 grams per mile travelled
  - c) an estimate of N<sub>2</sub>O emissions at 0.037975 grams per mile travelled.
- 11. Daily CH<sub>4</sub> and N<sub>2</sub>O emissions were converted to CO<sub>2</sub> equivalents.
- 12. Total daily CO<sub>2</sub> equivalents for CO<sub>2</sub>, N<sub>2</sub>O and CH<sub>4</sub> added together.
- 13. Daily greenhouse gas generation estimates were converted to an annual estimate using a conversion factor of 261 working days per year.

## H. Emissions from air travel

Greenhouse gas generation from Metro employee air travel was estimated for this report. Due to the difficulty of identifying air travel expenditures in the accounting system, the estimate was limited to FY07.

### 1. MRC and Zoo air travel

- A. A PeopleSoft query was used to extract information about all procurement card travel purchases for FY07.
- B. These results were filtered to include only payments to air carriers and travel services.
- C. Destinations for these trips were found by examination of scanned PDF (Portable Document Format) files of procurement card receipts.
- D. Based on this data, starting and end points of most trips were determined.
- E. Three methods were considered to estimate greenhouse gas generation from air travel. The online International Civil Aviation Organization Emissions calculator was judged to be more accurate than other methods

of estimating greenhouse gas generation from air travel. It uses more factors to make this estimate than other methods (type of planes used on specific air routes).

- F. GHG emissions were derived from the International Civil Aviation Organization Carbon Emissions Calculator.
- G. Using these emission estimates, round trip emission estimates were made where applicable.
- H. The emissions calculator gave results in kilograms. These results were converted to both short tons and metric tons.

## 2. MERC air travel

- A. A spreadsheet of travel expenditures was requested and received from the MERC accounting department.
- B. Entries were filtered for air carriers and travel services.
- C. In cases where the destination could not be identified from the description field of the spreadsheet, staff members were contacted via email for the destinations.
- D. Greenhouse gas emissions were derived from the International Civil Aviation Organization Carbon Emissions Calculator as in Step 1F above.
- E. These results were converted to both short tons and metric tons as in Step 1H above.

Note: It was challenging to get a complete depiction of greenhouse gases generated from Metro employee air travel. Air travel expenditures do not have unique coding that would allow them to be extracted from the financial database, and current records often omit the destination of air travel.

## I. Emissions from waste and recycling

- 1. Data from Metro waste and recycling reports for FY07 was summarized.
- 2. This data was sorted into the categories used in the Environmental Protection Agency's Excel Version of the Waste Reduction Model (WaRM), and a report summary of greenhouse gases emitted was generated.

Note: Estimating greenhouse gas generation from solid waste was hampered by a lack of standardization in recycling reports. While the report forms call for measurement of waste and recycled materials in terms of weight, the forms are sometimes completed with other information (lists of items disposed, fluid quantities) that cannot be used to determine approximate greenhouse gas generation potential.

## II. Estimating Water Consumption

- 1. Metro Finance and Administrative Services provided a spreadsheet with account numbers for several utility accounts.
- 2. OCC staff provided water consumption records for the Convention Center.
- 3. Audit staff requested water use information from City of Portland's Water Bureau and Oregon City.
- 4. City of Portland's Water Bureau provided spreadsheets of water account information.
- 5. Audit staff researched the addresses associated with each account, associated each account with a Metro facility, sorted the information by fiscal year, converted it into gallons and summarized it by facility and department.





Office of the Auditor  
600 NE Grand Avenue  
Portland, Oregon 97232  
503-797-1892

Agenda Item Number 5.1

Consideration of Minutes of the February 12, 2009 Metro Council Regular Meeting

***Consent Agenda***

Metro Council Meeting  
Thursday, February 19, 2009  
Metro Council Chamber

Agenda Item Number 5.2

**Resolution No.09-4027**, Confirming the Reappointment of Members to the Nature in Neighborhoods Capital Grants Review Committee, Designating the Chair and Appointing a New Metro Natural Resources Staff Person.

Metro Council Meeting  
Thursday, February 19, 2009  
Metro Council Chamber

BEFORE THE METRO COUNCIL

CONFIRMING THE REAPPOINTMENT OF MEMBERS TO THE NATURE IN NEIGHBORHOODS CAPITAL GRANTS REVIEW COMMITTEE, DESIGNATING THE CHAIR, AND APPOINTING A NEW METRO NATURAL RESOURCES STAFF REPRESENTATIVE. ) RESOLUTION NO. 09-4027 ) Introduced by Council President Bragdon )

WHEREAS, on November 1, 2007, the Metro Council approved Resolution No. 07-3879, "Confirming the Appointment of Members to the Nature in Neighborhoods Capital Grants Review Committee;"

WHEREAS, on December 6, 2007, the Metro Council approved Resolution No. 07-3874, "Confirming the Appointment of the Chair of the Nature in Neighborhoods Capital Grants Review Committee;"

WHEREAS, three of the members were appointed to one-year terms and are eligible to serve two additional two-year terms;

WHEREAS, the Metro Natural Resources staff person that was previously appointed to the committee no longer works at Metro, so a new staff person must be appointed to fill that position;

WHEREAS, the Council President desires to reappoint the three current members of the committee, to reconfirm the designation of the Chair of the committee, and to appoint a new Metro Natural Resources staff person to the committee; now, therefore,

BE IT RESOLVED, that the Metro Council confirms the reappointments to the Nature in Neighborhoods Capital Grants Review Committee, the designation of the Chair of the committee, and the appointment of a new Metro Natural Resources staff member to the committee, as set forth in Exhibit "A" attached hereto.

ADOPTED by the Metro Council this \_\_\_\_\_ day of \_\_\_\_\_ 2009.

\_\_\_\_\_  
David Bragdon, Council President

Approved as to Form:

\_\_\_\_\_  
Daniel B. Cooper, Metro Attorney

**Exhibit A to Resolution No. 09-4027**

**Nature in Neighborhoods  
Capital Grants Review Committee**

**Committee Member Appointments**

The following persons shall serve two-year terms, and be eligible thereafter to serve one additional two-year term:

Todd Alsbury	Fish Biologist, Oregon Department of Fish and Wildlife
Sue Marshall	Independent Consultant, Former Executive Director of Tualatin Riverkeepers
Mike Faha	Founding Principal of Greenworks P.C.

The chairperson of the committee shall be: Sue Marshall

The following Metro Natural Resources staff member shall fill a position that is not term-limited:

Curt Zonick	Natural Resource Scientist
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## STAFF REPORT

### CONFIRMING THE REAPPOINTMENT OF MEMBERS TO THE NATURE IN NEIGHBORHOODS CAPITAL GRANTS REVIEW COMMITTEE, DESIGNATING THE CHAIR, AND APPOINTING A NEW METRO NATURAL RESOURCES STAFF REPRESENTATIVE.

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Date: February 19, 2009

Prepared by: Jim Desmond  
Kathleen Brennan-Hunter

## BACKGROUND

The Natural Areas Bond Measure provides \$15 million for a Nature in Neighborhoods Capital Grants Program to provide local organizations and public entities with additional funds for land acquisition and projects that protect and enhance natural resources in the urban environment.

The Metro Council created a new Nature in Neighborhoods Capital Grants Review Committee in November 2007. The Capital Grants Review Committee consists of 9 members that were appointed by the Council President and confirmed by the Metro Council on November 1, 2007, by its approval of Resolution No. 07-3879, "Confirming the Appointment of Members to the Nature in Neighborhoods Capital Grants Review Committee."

Members of the committee are drawn from all areas of the region and from a variety of technical and professional disciplines, including water quality specialists, a fish biologist, and a landscape architect.

The grant review committee reviews grant applications that Metro staff has screened and makes recommendations for funding to the Metro Council. The Metro Council awards all grants under this program.

This Resolution reappoints three committee members, and appoints a new Metro Natural Resources staff member to the committee because the prior staff member no longer works at Metro. This Resolution also documents the Council President's designation of Sue Marshall as the Chair of the committee.

## ANALYSIS/INFORMATION

### 1. **Known Opposition**

None.

### 2. **Legal Antecedents**

Metro Resolution No. 06-3672B, "For the Purpose of Submitting to the Voters of the Metro Area a General Obligation Bond Indebtedness in the Amount of \$227.4 Million to Fund Natural Area Acquisition and Water Quality Protection," approved by the Metro Council on March 9, 2006.

Metro Code Section 2.19.230, "Nature in Neighborhoods Capital Grants Review Committee," which section establishes the purpose, authority, and member appointment process for the committee.

Metro Resolution No. 07-3879, "Confirming the Appointment of Members to the Nature in Neighborhoods Capital Grants Review Committee," approved by the Metro Council on November 1, 2007.

Metro Resolution No. 07-3874, "Confirming the Appointment of the Chair of the Nature in Neighborhoods Capital Grants Review Committee," approved by the Metro Council on December 6, 2007.

3. **Anticipated Effects**

By approving resolution 09-4027, the Metro Council will reappoint three committee members whose terms have expired but wish to continue serving, will reconfirm the designation of the Chair of the committee, and will appoint a replacement Metro Natural Resources staff member to the committee. The expertise of these Committee members have helped ensure that grant funds are awarded to projects that best meet the goals and objectives of the Natural Areas Bond Measure.

4. **Budget Impacts**

There are no budget impacts.

**RECOMMENDED ACTION**

Staff recommends adoption of Resolution No. 09-4027.

Agenda Item Number 6.1

**Ordinance No. 09-1210**, For the Purpose of Amending Metro Code Section  
4.01.050(a) Admission Fees, Effective June 1, 2009.

*First Reading*

Metro Council Meeting  
Thursday, February 19, 2009  
Metro Council Chamber



BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF AMENDING METRO ) ORDINANCE NO. 09-1210  
CODE SECTION 4.01.050(a) ADMISSION FEES, )  
EFFECTIVE JUNE 1, 2009 ) Introduced by Michael Jordan, Chief  
) Operating Officer, with the concurrence of  
) Council President David Bragdon

WHEREAS, the Oregon Zoo periodically needs to increase admission charges to keep pace with increased operating costs; and

WHEREAS, Oregon Zoo admission fees have not been increased since January 1, 2005; now, therefore,

THE METRO COUNCIL ORDAINS AS FOLLOWS:

- 1. That Metro Code Section 4.01.050(a) Admission Fees - Regular Fee Schedule is amended to read as follows:

“4.01.050 Admission Fees and Policies

(a) Regular Fee Schedule

Adult (12 years and over)	\$9.50	\$10.25
Youth (3 years through 11 years)	\$6.50	\$7.25
Child (2 years and younger)	Free	
Senior Citizen (65 years and over)	\$8.00	\$8.75”

- 2. That all other provisions of Metro Code Section 4.01.050 Admission Fees and Policies remain the same.
- 3. The amendment to Metro Code Section 4.01.050(a) Admission Fees – Regular Fee Schedule, takes effect June 1, 2009.

ADOPTED by the Metro Council this \_\_\_\_\_ day of February 2009.

\_\_\_\_\_  
David Bragdon, Council President

Attest:

Approved as to Form:

\_\_\_\_\_  
Christina Billington, Recording Secretary

\_\_\_\_\_  
Daniel B. Cooper, Metro Attorney

## STAFF REPORT

IN CONSIDERATION OF ORDINANCE NO. 09-1210, FOR THE PURPOSE OF AMENDING METRO CODE SECTION 4.01.050(a) ADMISSION FEES, EFFECTIVE JUNE 1, 2009

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Date: January 13, 2009

Prepared by: Craig M. Stroud  
(503) 220-2451

### BACKGROUND

The purpose of this ordinance is to amend Metro code section 4.01.050(a) to increase admission fees by \$.75, effective June 1, 2009. The last increase of \$.50 to the zoo admission fee was effective January 1, 2005.

The zoo is also increasing the \$1.00 discount offered to non-members who ride mass transit to the zoo by \$.50. The new transit discount of \$1.50 will be effective June 1, 2009.

### ANALYSIS/INFORMATION

- 1. Known Opposition:** None known.
- 2. Legal Antecedents:** Metro Code Section 4.01.050(a) Admission Fees and Policies identifies policies on Zoo admission fees, and requires the Zoo to request an amendment to increase fees.
- 3. Anticipated Effects:** The \$.75 fee increase proposed for June 1, 2009 would bring the adult admission rate to \$10.25. This rate is still the lowest of comparable facilities on the west coast and considerably lower than the two other Association of Zoos & Aquariums accredited facilities in Oregon. Community Tuesday admissions of \$2.00, offered the second Tuesday of every month, and periodic free zoo admission days are well attended, and offer opportunities to guests that might otherwise not be able to visit the zoo as frequently.

West Coast Zoos, Aquariums & Attractions	Location	Adult Admission
Oregon Museum of Science and Industry	Portland, OR	\$11.00
Oregon Coast Aquarium *	Newport, OR	\$14.25
Wildlife Safari *	Winston, OR	\$17.99
Woodland Park Zoo	Seattle, WA	\$16.50
Point Defiance Zoo	Tacoma, WA	\$13.00
San Francisco Zoo	San Francisco, CA	\$15.00
Los Angeles Zoo	Los Angeles, CA	\$12.00
	<b>Average</b>	<b>\$14.25</b>
	<b>Oregon Zoo Proposed Fee as of June 1, 2009</b>	<b>\$10.25</b>

\* The only other Association of Zoos & Aquariums accredited facilities in Oregon.

The admission fee structure is proposed as follows:

<u>Category</u>	<u>Current</u>	<u>Proposed</u>	<u>Increase</u>
Adult	\$9.50	\$10.25	\$.75
Child	\$6.50	\$7.25	\$.75
Senior	\$8.00	\$8.75	\$.75

- 4. Budget Impacts:** The additional revenue generated by the admission fee increases, net transit discount, is estimated at \$76,304 for June 2009, and \$516,993 for fiscal year 2009-10. The fiscal year 2008-09 adopted budget assumes a \$.25 fee increase, and the fiscal year 2009-10 requested budget assumes a \$.50 fee increase. This ordinance implements these increases.

**RECOMMENDED ACTION**

The Chief Operating Officer recommends adoption of this Ordinance.

Agenda Item Number 6.2

**Ordinance No. 09-1211**, For the Purpose of Amending Metro Code, Chapter 12.02 Regional Park Fees, Section 10.02.020, to Adjust Park Entry Fees and Delegate to the Chief Operating Officer the Authority to Set all Other Regional Park Use Fees and Rental Fees.

*First Reading*

Metro Council Meeting  
Thursday, February 19, 2009  
Metro Council Chamber

BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF AMENDING METRO	)	ORDINANCE NO. 09-1211
CODE CHAPTER 10.02 REGIONAL PARK	)	
FEES, SECTION 10.02.020, TO ADJUST PARK	)	Introduced by Chief Operating Officer
ENTRY FEES AND DELEGATE TO THE CHIEF	)	Michael J. Jordan, with the concurrence of
OPERATING OFFICER THE AUTHORITY TO	)	Council President David Bragdon
SET ALL OTHER REGIONAL PARK USE FEES	)	
AND RENTAL RATES	)	

WHEREAS, Metro’s regional park entry fees are established and adjusted by ordinance, and were last increased in 2003 via Ordinance No. 03-1008 (For the Purpose of Amending Metro Code Title X, Metro Regional Parks and Greenspaces, to Increase Park Fees), adopted on June 5, 2003; and

WHEREAS, regional park attendance has increased steadily in the past two years, resulting in rising costs; and

WHEREAS, an increase in regional park entry fees is needed to offset rising costs and continue to maintain the regional parks at an acceptable level and offer the highest level of community service possible; and

WHEREAS, regional park use fees and rental rates are also established and adjusted by ordinance; and

WHEREAS, a more flexible and immediate means of adjusting Metro regional park use fees and rental rates to account for seasonal attendance and economic conditions is necessary; now therefore,

THE METRO COUNCIL ORDAINS AS FOLLOWS:

Effective June 1, 2009, Metro Code Chapter 10.02 Regional Park Fees, Section 10.020 Park Fees, shall be amended to read as follows:

“10.02.020 Park Fees

The following fees shall be charged and collected by Metro for and prior to the following park uses and activities:

(a) Reservation fees for shelters and reservable picnic areas at Blue Lake Park shall be set ~~and adjusted by the Chief Operating Officer or the Chief Operating Officer’s designee forth in Appendix "A" to Chapter 10.02. However, reservation fees for weekday events (except holidays) shall be reduced by 20 percent. Off season reservation fees (November 1 through May 14) shall be reduced by 50 percent.~~

(b) Fees for alcohol permits at Blue Lake Park shall be ~~set and adjusted by the Chief Operating Officer or the Chief Operating Officer’s designee.\$225.00 for all areas~~

(c) Overnight camping fees at Oxbow Park, ~~including fees for additional vehicles,~~ shall be ~~set and adjusted by the Chief Operating Officer or the Chief Operating Officer’s designee \$15.00 per site per night.~~ Permit must be displayed. ~~The fee for each additional vehicle shall be \$4.00 per night.~~ Each vehicle must pay entry fee on initial day of entry.

(d) Entry fees at Blue Lake Park and Oxbow Park shall be \$~~4~~5.00 per motorized vehicle on all days and \$7.00 per bus on all days.

(e) Boat launching and/or parking fees at the M. James Gleason Boat Ramp shall be \$5.00 and fees at the Chinook Landing Marine Park shall be \$5.00 per motorized vehicle on all days.

(f) Fees for special events shall be set and adjusted by the Chief Operating Officer or the Chief Operating Officer's designee~~by the Director of the Regional Parks and Greenspaces Department.~~

(g) Fees for nightly use of overnight group camps at Oxbow Park by nonprofit and youth organizations shall be set and adjusted by the Chief Operating Officer or the Chief Operating Officer's designee as follows:

~~————— (1) ——— \$25.00 minimum for the first 10 people for Group Camps #2 and then \$2.50 per person up to a \$87.50 maximum (this does not include the vehicle entry fee). 35 people per night maximum per site.~~

~~————— (2) ——— \$50.00 minimum for the first 20 people for Group Camp #1 and then \$2.50 per person up to a \$325.00 maximum (this does not include the vehicle entry fee). 150 people maximum per night.~~

~~————— (3) ——— A reservation fee of \$10.00 will be charged to all groups.~~

(h) Picnic area reservation fees shall be set and adjusted by the Chief Operating Officer or the Chief Operating Officer's designee~~at Oxbow Park shall be as follows (does not include vehicle entry fees):~~

~~————— Area A — \$280.00~~

~~————— Area B — \$170.00~~

~~————— Area C — \$215.00~~

~~————— Area D — \$260.00~~

~~However, reservation fees for weekday events (except holidays) shall be reduced by 20 percent. Off-season reservation fees (November 1 through May 14) shall be reduced by 50 percent.~~

(i) The fee for annual passes in lieu of daily entrance fees, launching and/or parking fees at Blue Lake Park, Oxbow Park, Chinook Landing, and M. James Gleason Boat Ramp shall be as follows:

(1) Regular: \$40.00 per year (January 1 through December 31)

(2) Seniors: \$30.00 per year (January 1 through December 31)

(3) Low-Income/Disabled: \$10.00 per year (January 1 through December 31)

(j) Entrance fees at Blue Lake Park and Oxbow Regional Park shall be waived for any police officer (officers' fees are waived also at Chinook Landing Marine Park and the Gleason Boat Ramp) or Metro employee who presents valid current identification at the park entrance. Fee waivers shall not apply to any special events or other facilities.

(k) Entrance Fees at Blue Lake Park, Oxbow Park, Chinook Landing, and M. James Gleason Boat Ramp, and camping fees at Oxbow Park, shall be waived for any disabled veteran who presents valid current photo identification and an Oregon State Parks Special Access Pass for Veterans with Service Connected Disabilities ID Card and green placard issued by Oregon State Parks in said veteran's vehicle in full view on the dashboard or hanging from the rear-view mirror.

Fee waivers shall not apply to fees for the use of other facilities.

(l) Except for use by Metro, ~~the rental rates fees and security deposit, along with \$300.00 refundable deposit,~~ for "The Lake House" at Blue Lake Park shall be set and adjusted by the Chief Operating Officer or the Chief Operating Officer's designee.

<del>(1)</del>	<del>April 1 to October 31 (Friday after 5:00 p.m. and Sundays):</del>	
<del>10:00 a.m. to 4:00 p.m.</del>	<del>\$1,000.00</del>	
<del>6:00 p.m. to 11:00 p.m.</del>	<del>\$1,000.00</del>	
<del>10:00 a.m. to 10:00 p.m.</del>	<del>\$1,500.00</del>	
<del>(2)</del>	<del>April 1 to October 31 (Saturday):</del>	
<del>10:00 a.m. to 4:00 p.m.</del>	<del>\$1,100.00</del>	
<del>6:00 p.m. to 11:00 p.m.</del>	<del>\$1,100.00</del>	
<del>10:00 a.m. to 10:00 p.m.</del>	<del>\$1,600.00</del>	
<del>(3)</del>	<del>November 1 to March 30 (Friday after 5:00 p.m. and Sundays):</del>	
<del>10:00 a.m. to 4:00 p.m.</del>	<del>\$700.00</del>	
<del>6:00 p.m. to 11:00 p.m.</del>	<del>\$700.00</del>	
<del>10:00 a.m. to 10:00 p.m.</del>	<del>\$1,050.00</del>	
<del>(4)</del>	<del>November 1 to March 30 (Saturday)</del>	
<del>10:00 a.m. to 4:00 p.m.</del>	<del>\$800.00</del>	
<del>6:00 p.m. to 11:00 p.m.</del>	<del>\$800.00</del>	
<del>10:00 a.m. to 10:00 p.m.</del>	<del>\$1,150.00</del>	
<del>(5)</del>	<del>Weekdays (Monday through Thursday and Friday until 5:00 p.m.):</del>	
<del>\$40.00 per hour (10:00 a.m. — 5:00 p.m.) with a three hour minimum charge</del>		
<del>\$60.00 per hour (5:00 p.m. — 11:00 p.m.) with a three hour minimum charge</del>		

**APPENDIX "A"**  
**TO CHAPTER 10.02.020(a)**  
**PARK FEES, BLUE LAKE REGIONAL PARK**

<u>AREA</u>	<u>GROUP SIZE</u>	<u>FEE</u>	<u>ENTIRE AREA FEE</u>
11A	100	\$65.00	
11B Full Canopy	50	\$100.00	\$165.00
12A Full Canopy	100	\$120.00	
12B	50	\$ 50.00	
12C	50	\$ 50.00	
12D	50	\$ 50.00	\$270.00
13A	50	\$ 50.00	
13B	50	\$ 50.00	
13C	100	\$ 65.00	
13D	50	\$ 50.00	\$215.00

14A	100	\$ 65.00	
14B Full Canopy	50	\$100.00	
14C	50	\$ 50.00	
14D	100	\$ 65.00	
14E	50	\$ 50.00	\$330.00
<b>Celilo Shelter *</b>			
A	60	\$135.00	
B	60	\$135.00	\$265.00
<b>Chinook Shelter *</b>			
A	125	\$215.00	
B	125	\$215.00	\$430.00
17A	100	\$ 65.00	
17B	100	\$ 65.00	
17C	100	\$ 65.00	
17D	100	\$ 65.00	\$265.00
18A *	100	\$ 65.00	
18B *	100	\$ 65.00	\$130.00
19	100	\$ 65.00	\$ 65.00
<b>Multnomah Shelter *</b>			
A	60	\$135.00	
B	60	\$135.00	
C	60	\$135.00	
D	60	\$135.00	\$530.00
<b>Shahala Shelter *</b>			
A	125	\$215.00	
B	125	\$215.00	\$430.00
<b>Clatsop Shelter *</b>			
A	125	\$215.00	
B	125	\$215.00	\$430.00
21 *	200	\$165.00	\$165.00

\* Alcohol allowed in these areas only; alcohol permit must be obtained from Reservation Office at the time reservation is booked (additional fee) pursuant to Sections 10.01.200 and 10.02.020(b).

Please Note: The cost of a reservation does not include the entry fee."

ADOPTED by the Metro Council this \_\_\_\_\_ day of \_\_\_\_\_ 2009.

\_\_\_\_\_  
David Bragdon, Council President

Attest:

Approved as to Form:

\_\_\_\_\_  
Christina Billington, Recording Secretary

\_\_\_\_\_  
Daniel B. Cooper, Metro Attorney



## STAFF REPORT

IN CONSIDERATION OF ORDINANCE NO. 09-1211, FOR THE PURPOSE OF AMENDING METRO CODE CHAPTER 10.02 REGIONAL PARK FEES, SECTION 10.02.020, TO ADJUST PARK ENTRY FEES AND DELEGATE TO THE CHIEF OPERATING OFFICER THE AUTHORITY TO SET ALL OTHER REGIONAL PARK USE FEES AND RENTAL RATES

---

Date: February 5, 2009

Prepared by: Mike Brown  
Parks and Environmental Services  
(503) 797-1509

### BACKGROUND

Park entry fees and campground fees have not been increased since 2003. Since that time labor costs increased 29% from 2003 to 2008 in the Columbia District, utilities expenditures have increased (despite numerous conservation efforts), additional staff time has been devoted to an aggressive recycling program, and an overall emphasis on regular maintenance of the landscape and facilities has increased the demand for labor district-wide. Park attendance has increased steadily in the past two years with continued increased attendance anticipated due to the poor economic climate. (An analysis of past economic downturns indicates that families recreate closer to home in tough economic times.) In an effort to continue to maintain the parks at an acceptable level, continue to accomplish maintenance and repair projects, and offer the highest level of customer service possible, an entry fee increase is needed to offset our rising costs.

Currently the Metro Council must amend Metro Code, Section 10.02.020, when Metro wishes to increase Park entry fees, user fees and rental rates at Metro's Regional Park facilities. A more flexible and immediate means of adjusting park use fees and rental rates to account for seasonal attendance and economic conditions is needed. Delegating to the Chief Operating Officer the authority to periodically set and adjust user fees and rates will make it possible to increase or decrease user fees and rates to adjust for seasonal demands and economic market shifts, without amending the Metro Code in each instance.

### ANALYSIS/INFORMATION

1. **Known Opposition.** No known opposition.

2. **Legal Antecedents.**

Ordinance No. 96-659A (For the Purpose of Adopting Metro Code Title X, Metro Regional Parks and Greenspaces), adopted on February 20, 1997;

Ordinance No. 98-722 ((For the Purpose of Amending Metro Code Title X, Metro Regional Parks and Greenspaces, to Increase Rental Fees at Blue Lake Regional Park's Lake House) adopted on March 5, 1998;

Ordinance No. 01-894 (For the Purpose of Amending Metro Code Title X, Metro Regional Parks and Greenspaces, to Increase Park Fees), adopted on March 1, 2001;

Ordinance No. 03-1008 (For the Purpose of Amending Metro Code Title X, Metro Regional Parks and Greenspaces, to Increase Park Fees) adopted on June 5, 2003;

Ordinance No. 04-1047 (For the Purpose of Amending Metro Code Chapter 10.02 to Increase the Refundable Deposit at the Lake House at Blue Lake Regional Park), adopted on June 3, 2004;

Ordinance No. 06-1109 (For the Purpose of Amending Metro Code, Title X, Metro Regional Parks and Greenspaces, Metro Code Chapter 10.02 Regional Park Fees, Section 10.02.020, to Adjust Park Use and Rental Fees), adopted on January 26, 2006; and

Ordinance No. 07-1166 (For the Purpose of Amending the Metro Code Chapter 10.02 Regional Park Fees to Provide Free Admission to U.S. Veterans With Service-Connected Disabilities), adopted on November 8, 2007.

3. **Anticipated Effects.** Ordinance No. 09-1211 will amend Metro Code Section 10.02.020 “Entry Fees” to increase entry fees to Oxbow Park and Blue Lake Park. This increase in entry fees at the parks facilities will offset the costs associated with operating the facilities, and ensure the fees are commensurate with the State of Oregon Parks.

The following is a summary of proposed changes:

<u>Vehicle Entry Fees</u>	<u>Current</u>	<u>Proposed</u>
Blue Lake Park	\$4 passenger vehicle/\$7 bus	\$5 passenger vehicle/\$7 bus
Oxbow Park	\$4 passenger vehicle/\$7 bus	\$5 passenger vehicle/\$7 bus

#### Oxbow Park Campsite Fees

Once authorization has been granted, the Chief Operating Officer will increase fees for overnight camping in group camp sites from \$15.00 per night to \$20.00 per night beginning January 1, 2010, commensurate with current State of Oregon Parks camping fees.

This ordinance will also amend Metro Code Section 10.02.020 to grant the Chief Operating Officer the authority to set and adjust the following non-entry park use fees and rental rates:

- Picnic Shelters and Picnic Areas reservation fees;
- Alcoholic Beverages Permit Fees;
- Camping Fees; and
- Blue Lake House rental rates.

This ordinance will not delegate to the Chief Operating Officer the authority to establish any new Park fees.

4. **Justification.** Park Entry fees and campsite fee increases will bring Metro Park Facility fees in line with comparable parks such as State of Oregon Parks. In addition the fees will help offset costs for the facilities to operate, while addressing on-going needs for maintenance of aging systems and structures.
5. **Budget Impacts.** This Ordinance provides the General Fund an increase in user fees of approximately \$118,130.00, and \$8,860.00 in excise tax. The new Park Entry fees would go into effect June 1, 2009. The increase to overnight camping fees at Oxbow Regional Park will become effective January 1, 2010. The FY 2009-10 Proposed Budget will include these fee increases.

#### **RECOMMENDED ACTION**

Michael Jordan, Chief Operating Officer, with the concurrence of David Bragdon, Council President, recommends adoption of Ordinance 09-1211.

Agenda Item Number 6.3

**Ordinance No. 09-1212**, Amending the FY 2008-09 Budget and Appropriations Schedule Recognizing Donations to the Oregon Zoo, Amending the Capital Improvement Plan, and Declaring an Emergency

*First Reading*

Metro Council Meeting  
Thursday, February 19, 2009  
Metro Council Chamber

BEFORE THE METRO COUNCIL

AMENDING THE FY 2008-09 BUDGET AND	)	ORDINANCE NO. 09-1212
APPROPRIATION SCHEDULE RECOGNIZING	)	
DONATIONS TO THE OREGON ZOO,	)	Introduced by Michael Jordan, Chief
AMENDING THE CAPITAL IMPROVEMENT	)	Operating Officer, with the concurrence of
PLAN, AND DECLARING AN EMERGENCY	)	Council President David Bragdon
	)	

WHEREAS, the Metro Council has reviewed and considered the need to increase appropriations within the FY 2008-09 Budget; and

WHEREAS, Oregon Budget Law ORS 294.326 allows for the expenditure in the year of receipt of grants, gifts, bequests, and other devices received by a municipal corporation in trust for a specific purpose; and

WHEREAS, the need for the increase of appropriation has been justified; and

WHEREAS, adequate funds exist for other identified needs; now, therefore,

THE METRO COUNCIL ORDAINS AS FOLLOWS:

1. That the FY 2008-09 Budget and Schedule of Appropriations are hereby amended as shown in the column entitled "Revision" of Exhibits A and B to this Ordinance for the purpose of recognizing donations to the Oregon Zoo.
2. That the FY 2008-09 through FY 2012-13 Capital Improvement Plan is hereby amended to include the projects shown in Exhibit C to this Ordinance.
3. This Ordinance being necessary for the immediate preservation of the public health, safety or welfare of the Metro area in order to meet obligations and comply with Oregon Budget Law, an emergency is declared to exist, and this Ordinance takes effect upon passage.

ADOPTED by the Metro Council this \_\_\_\_\_ day of \_\_\_\_\_ 2009.

\_\_\_\_\_  
David Bragdon, Council President

Attest:

Approved as to Form:

\_\_\_\_\_  
Christina Billington, Recording Secretary

\_\_\_\_\_  
Daniel B. Cooper, Metro Attorney

**Exhibit A**  
**Ordinance No. 09-1212**

ACCT	DESCRIPTION	Current Budget		Revision		Amended Budget	
		FTE	Amount	FTE	Amount	FTE	Amount
<b>Metro Capital Fund</b>							
<b>Resources (this fund formerly included renewal &amp; replacement now budgeted in a separate fund)</b>							
<b><i>Resources</i></b>							
<i>BEGBAL</i>	<i>Beginning Fund Balance</i>						
3500	* Prior year ending balance		7,547,235		0		7,547,235
3500	* Prior year PERS Reserve		6,553		0		6,553
<i>GRANTS</i>	<i>Grants</i>						
4100	Federal Grants-Direct		104,973		0		104,973
4105	Federal Grants-Indirect		820,000		0		820,000
4110	State Grants-Direct		1,340,800		0		1,340,800
4115	State Grants-Indirect		100,000		0		100,000
4120	Local Grants-Direct		413,764		0		413,764
<i>INTRST</i>	<i>Interest Earnings</i>						
4700	Interest on Investments		110,854		0		110,854
<i>DONAT</i>	<i>Contributions from Private Sources</i>						
4750	Donations and Bequests		3,698,027		0		3,698,027
<i>CAPGRT</i>	<i>Capital Contributions &amp; Donations</i>						
4755	Capital Contributions & Donations		0		586,625		586,625
<i>MISCRV</i>	<i>Miscellaneous Revenue</i>						
4890	Miscellaneous Revenue		2,751,919		0		2,751,919
<i>EQTRV</i>	<i>Fund Equity Transfers</i>						
4970	Transfer of Resources						
	* from General Renewal & Replacement Fund		375,000		0		375,000
	* from General Fund (per ton on SW)		270,000		0		270,000
	* from General Fund-FAS projects		65,000		0		65,000
	* from General Fund-IT Projects		140,000		0		140,000
<b>TOTAL RESOURCES</b>			<b>\$17,744,125</b>		<b>\$586,625</b>		<b>\$18,330,750</b>
<b>Total Personal Services</b>		<b>2.00</b>	<b>\$179,631</b>	<b>-</b>	<b>\$0</b>	<b>2.00</b>	<b>\$179,631</b>
<b>Total Materials &amp; Services</b>			<b>\$540,000</b>		<b>\$0</b>		<b>\$540,000</b>
<b><i>Capital Outlay</i></b>							
<i>CAPNON</i>	<i>Capital Outlay (non-CIP Projects)</i>						
5750	Office Furniture & Equip		25,000		0		25,000
<i>CAPCIP</i>	<i>Capital Outlay (CIP Projects)</i>						
5710	Improve-Oth thn Bldg		8,453,800		0		8,453,800
5720	Buildings & Related		100,000		0		100,000
5730	Exhibits and Related		5,296,000		556,625		5,852,625
5740	Equipment & Vehicles		135,959		30,000		165,959
5750	Office Furniture & Equip		265,000		0		265,000
<b>Total Capital Outlay</b>			<b>\$14,275,759</b>		<b>\$586,625</b>		<b>\$14,862,384</b>
<b>Total Interfund Transfers</b>			<b>\$97,174</b>		<b>\$0</b>		<b>\$97,174</b>
<b>Total Contingency &amp; Unappropriated Balance</b>			<b>\$2,651,561</b>		<b>\$0</b>		<b>\$2,651,561</b>
<b>TOTAL REQUIREMENTS</b>			<b>2.00</b>	<b>\$17,744,125</b>	<b>-</b>	<b>\$586,625</b>	<b>2.00</b>
							<b>\$18,330,750</b>

**Exhibit A  
Ordinance No. 09-1212**

ACCT	DESCRIPTION	Current		Revision		Amended	
		FTE	Amount	FTE	Amount	FTE	Amount
<b>General Fund</b>							
<b>Resources</b>							
<i>Resources</i>							
<i>BEGBAL</i>	<i>Beginning Fund Balance</i>						
3500	Beginning Fund Balance						
	* Undesignated		4,094,902		0		4,094,902
	* Prior period audit adjustment: TOD		5,865,983		0		5,865,983
	* Reserved for Underspending		334,000		0		334,000
	* Project Carryover		1,481,337		0		1,481,337
	* Tourism Opportunity & Comp. Account		96,655		0		96,655
	* Recovery Rate Stabilization Reserve		1,012,884		0		1,012,884
	* Reserved for Local Gov't Grants (CET)		602,046		0		602,046
	* Reserve for Future Debt Service		2,397,852		0		2,397,852
	* Tibbets Flower Account		352		0		352
	* Reserved for Future Planning Needs		1,604,140		0		1,604,140
	* Reserved for Future Election Costs		290,000		0		290,000
	* Reserved for Nature in Neighborhood Grants		1,050,000		0		1,050,000
	* Reserved for Reg. Afford. Housing Revolving F		1,000,000		0		1,000,000
	* Reserved for Metro Regional Center Remodel		413,000		0		413,000
	* Reserve for Future Natural Areas Operations		764,453		0		764,453
	* Prior year PERS Reserve		2,782,174		0		2,782,174
<i>EXCISE</i>	<i>Excise Tax</i>						
4050	Excise Taxes		15,106,909		0		15,106,909
4055	Construction Excise Tax		1,497,954		0		1,497,954
<i>RPTAX</i>	<i>Real Property Taxes</i>						
4010	Real Property Taxes-Current Yr		10,618,031		0		10,618,031
4015	Real Property Taxes-Prior Yrs		318,541		0		318,541
<i>GRANTS</i>	<i>Grants</i>						
4100	Federal Grants - Direct		3,999,452		0		3,999,452
4105	Federal Grants - Indirect		5,578,045		0		5,578,045
4110	State Grants - Direct		1,351,000		0		1,351,000
4120	Local Grants - Direct		5,503,093		0		5,503,093
<i>LGSHRE</i>	<i>Local Gov't Share Revenues</i>						
4135	Marine Board Fuel Tax		114,000		0		114,000
4139	Other Local Govt Shared Rev.		447,967		0		447,967
<i>GVCNTB</i>	<i>Contributions from Governments</i>						
4145	Government Contributions		410,633		0		410,633
<i>LICPER</i>	<i>Licenses and Permits</i>						
4150	Contractor's Business License		412,000		0		412,000
<i>CHGSVC</i>	<i>Charges for Service</i>						
4160	Boat Ramp Use Permits		508		0		508
4165	Boat Launch Fees		150,000		0		150,000
4180	Contract & Professional Service		563,178		0		563,178
4200	UGB Fees		50,000		0		50,000
4230	Product Sales		387,519		0		387,519
4280	Grave Openings		179,325		0		179,325
4285	Grave Sales		144,675		0		144,675
4500	Admission Fees		7,759,908		0		7,759,908
4501	Conservation Surcharge		150,000		0		150,000
4510	Rentals		807,341		0		807,341
4550	Food Service Revenue		5,155,669		0		5,155,669
4560	Retail Sales		2,216,110		0		2,216,110
4580	Utility Services		2,000		0		2,000

**Exhibit A**  
**Ordinance No. 09-1212**

ACCT	DESCRIPTION	Current Budget		Revision		Amended Budget	
		FTE	Amount	FTE	Amount	FTE	Amount
<b>General Fund</b>							
<b>Resources</b>							
4610	Contract Revenue		883,315		0		883,315
4620	Parking Fees		930,000		0		930,000
4630	Tuition and Lectures		1,239,645		0		1,239,645
4635	Exhibit Shows		1,049,986		0		1,049,986
4640	Railroad Rides		805,462		0		805,462
4645	Reimbursed Services		270,000		0		270,000
4650	Miscellaneous Charges for Service		13,831		0		13,831
4760	Sponsorships		57,000		0		57,000
<i>INTRST</i>	<i>Interest Earnings</i>						
4700	Interest on Investments		994,972		0		994,972
<i>DONAT</i>	<i>Contributions from Private Sources</i>						
4750	Donations and Bequests		1,310,895		35,600		1,346,495
<i>INCGRV</i>	<i>Internal Charges for Service</i>						
4670	Charges for Service		48,124		0		48,124
<i>MISCRV</i>	<i>Miscellaneous Revenue</i>						
4170	Fines and Forfeits		20,000		0		20,000
4890	Miscellaneous Revenue		151,000		0		151,000
4891	Reimbursements		1,411,973		0		1,411,973
<i>EQTREV</i>	<i>Fund Equity Transfers</i>						
4970	Transfer of Resources						
	* from MERC Pooled Capital Fund		97,174		0		97,174
<i>INDTRV</i>	<i>Interfund Reimbursements</i>						
4975	Transfer for Indirect Costs						
	* from MERC Operating Fund		1,842,802		0		1,842,802
	* from Natural Areas Fund		1,028,311		0		1,028,311
	* from Solid Waste Revenue Fund		3,681,110		0		3,681,110
<i>INTSRV</i>	<i>Internal Service Transfers</i>						
4980	Transfer for Direct Costs						
	* from Natural Areas Fund		128,513		0		128,513
	* from Smith & Bybee Lakes Fund		119,980		0		119,980
	* from Solid Waste Revenue Fund		738,056		0		738,056
<b>TOTAL RESOURCES</b>			<b>\$103,535,785</b>		<b>\$35,600</b>		<b>\$103,571,385</b>

**Exhibit A**  
**Ordinance No. 09-1212**

ACCT	DESCRIPTION	Current Budget		Revision		Amended Budget	
		FTE	Amount	FTE	Amount	FTE	Amount
<b>General Fund</b>							
<b>Oregon Zoo</b>							
<b>Total Personal Services</b>		<b>153.98</b>	<b>\$15,761,655</b>	<b>0.00</b>	<b>\$0</b>	<b>153.98</b>	<b>\$15,761,655</b>
<b><i>Materials &amp; Services</i></b>							
<i>GOODS Goods</i>							
	5201 Office Supplies		115,715		0		115,715
	5205 Operating Supplies		1,383,558		9,600		1,393,158
	5210 Subscriptions and Dues		58,754		0		58,754
	5214 Fuels and Lubricants		82,000		0		82,000
	5215 Maintenance & Repairs Supplies		367,550		0		367,550
	5220 Food		1,260,000		0		1,260,000
<i>SVCS Services</i>							
	5245 Marketing		6,650		0		6,650
	5240 Contracted Professional Svcs		1,004,772		25,000		1,029,772
	5251 Utility Services		2,228,970		0		2,228,970
	5255 Cleaning Services		37,600		0		37,600
	5260 Maintenance & Repair Services		160,775		0		160,775
	5265 Rentals		179,350		0		179,350
	5280 Other Purchased Services		940,091		0		940,091
	5290 Operations Contracts		1,962,692		0		1,962,692
<i>CAPMNT Capital Maintenance</i>							
	5262 Capital Maintenance - Non-CIP		314,800		0		314,800
<i>IGEXP Intergov't Expenditures</i>							
	5300 Payments to Other Agencies		91,680		0		91,680
	5315 Grants to Other Governments		10,000		0		10,000
<i>OTHEXP Other Expenditures</i>							
	5445 Grants		165,000		0		165,000
	5450 Travel		105,705		0		105,705
	5455 Staff Development		49,980		1,000		50,980
	5490 Miscellaneous Expenditures		135,265		0		135,265
<b>Total Materials &amp; Services</b>			<b>\$10,660,907</b>		<b>\$35,600</b>		<b>\$10,696,507</b>
<b>Total Capital Outlay</b>			<b>\$255,000</b>		<b>\$0</b>		<b>\$255,000</b>
<b>TOTAL REQUIREMENTS</b>		<b>153.98</b>	<b>\$26,677,562</b>	<b>0.00</b>	<b>\$35,600</b>	<b>153.98</b>	<b>\$26,713,162</b>



**Exhibit B**  
**Ordinance 09-1212**  
**Schedule of Appropriations**

	<b>Current Appropriation</b>	<b>Revision</b>	<b>Revised Appropriation</b>
<b>GENERAL FUND</b>			
Council Office	3,109,046	0	3,109,046
Finance & Administrative Services	5,489,506	0	5,489,506
Human Resources	1,737,211	0	1,737,211
Information Technology	2,808,244	0	2,808,244
Metro Auditor	651,286	0	651,286
Office of Metro Attorney	1,997,616	0	1,997,616
Oregon Zoo	26,677,562	35,600	26,713,162
Planning	24,467,799	0	24,467,799
Public Affairs & Government Relations	1,993,617	0	1,993,617
Regional Parks & Greenspaces	8,425,902	0	8,425,902
Special Appropriations	3,538,480	0	3,538,480
Former ORS 197.352 Claims & Judgments	100	0	100
Non-Departmental			
Debt Service	1,450,486	0	1,450,486
Interfund Transfers	5,165,928	0	5,165,928
Contingency	7,285,705	0	7,285,705
Unappropriated Balance	8,737,297	0	8,737,297
<b>Total Fund Requirements</b>	<b>\$103,535,785</b>	<b>\$35,600</b>	<b>\$103,535,785</b>
<b>METRO CAPITAL FUND</b>			
Capital Program	14,995,390	586,625	15,582,015
Non-Departmental			
Interfund Transfers	97,174	0	97,174
Contingency	2,293,857	0	2,293,857
Unappropriated Balance	357,704	0	357,704
<b>Total Fund Requirements</b>	<b>\$17,744,125</b>	<b>\$586,625</b>	<b>\$17,744,125</b>

*All other appropriations remain as previously adopted*

**EXHIBIT C  
Ordinance 09-1212**

**Capital Project Request - Project Detail**

<b>Project Title:</b>	Red Ape Reserve "Orangutan"			<b>Fund:</b>	Zoo Capital Projects Fund		
<b>Project Status:</b>	Incomplete	<b>Funding Status:</b>	Funded	<b>FY First Authorized:</b>	2007-08	<b>Department:</b>	Oregon Zoo
<b>Project Number</b>	ZPR12	<b>Active:</b>	<input checked="" type="checkbox"/>	<b>Dept. Priority:</b>	3	<b>Facility:</b>	
		<b>Division:</b>	Construction Maintenance				
<b>Source Of Estimat</b>	Preliminary	<b>Source:</b>		<b>Start Date:</b>	7/07	<b>Date:</b>	12/4/2006
		<b>Cost Type:</b>	Facilities				
<b>Type of Project:</b>	New	<b>Request Typ</b>	Initial	<b>Completion Date:</b>	6/09	<b>Prepared By:</b>	Craig Stroud

<b>Project Estimates</b>	<b>Actual</b>	<b>Budget/Est</b>	<b>Prior</b>						
<b>Capital Cost:</b>	<b>Expend</b>	<b>2007-2008</b>	<b>Years</b>	<b>2008-2009</b>	<b>2009-2010</b>	<b>2010-2011</b>	<b>2011-2012</b>	<b>2012-2013</b>	<b>Total</b>
Design and Engineering	\$0	\$95,000	\$95,000	\$0	\$0	\$0	\$0	\$0	\$95,000
Construction	\$0	\$130,000	\$130,000	\$1,900,125	\$0	\$0	\$0	\$0	\$2,030,125
Project Contingency	\$0	\$0	\$0	\$144,000	\$0	\$0	\$0	\$0	\$144,000
1% for Art	\$0	\$0	\$0	\$16,000	\$0	\$0	\$0	\$0	\$16,000
<b>Total:</b>	\$0	\$225,000	\$225,000	\$2,060,125	\$0	\$0	\$0	\$0	\$2,285,125

**Funding Source:**

Fund Balance - Capital Reserve	\$0	\$225,000	\$225,000	\$1,575,000	\$0	\$0	\$0	\$0	\$1,800,000
Donations	\$0	\$0	\$0	\$485,125	\$0	\$0	\$0	\$0	\$485,125
<b>Total:</b>	\$0	\$225,000	\$225,000	\$2,060,125	\$0	\$0	\$0	\$0	\$2,285,125

**Annual Operating Budget Impact**

<b>Annual Revenues</b>				\$0	\$405,360	\$205,382	\$156,064	\$118,568	\$885,374
<b>Annual Expenditures</b>									
Materials and Services				\$0	\$17,000	\$17,000	\$17,000	\$17,000	\$68,000
Subtotal, Expenditures:				\$0	\$17,000	\$17,000	\$17,000	\$17,000	\$68,000
<b>Net Operating Contribution (Cost):</b>				\$0	\$388,360	\$188,382	\$139,064	\$101,568	\$817,374

<b>Project Description / Justification:</b>	<b>Estimated Useful Life (yrs):</b>	20	<b>First Full Fiscal Year of Operation:</b>	2009-10
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Construction of a new indoor exhibit, the construction of new holding/shift rooms, and the renovation of existing outdoor exhibits. The Oregon Zoo Foundation donated \$438,725 and the American Association of Zoo Keepers is donating \$46,400 designated for use in this exhibits construction.

**EXHIBIT C  
Ordinance 09-1212**

**Capital Project Request - Project Detail**

<b>Project Title:</b>	Family Farm Addition			<b>Fund:</b>	Zoo Capital Projects Fund		
<b>Project Status:</b>	Incomplete	<b>Funding Status:</b>	Funded	<b>FY First Authorized:</b>	2008-09	<b>Department:</b>	Oregon Zoo
<b>Project Number</b>	ZGN03	<b>Active:</b>	<input checked="" type="checkbox"/>	<b>Dept. Priority:</b>	6	<b>Facility:</b>	
<b>Source Of Estimat</b>	Preliminary	<b>Source:</b>		<b>Start Date:</b>	7/08	<b>Date:</b>	12/12/2007
<b>Cost Type:</b>							Facilities
<b>Type of Project:</b>	Replacement	<b>Request Type</b>	Initial	<b>Completion Date:</b>	6/09	<b>Prepared By:</b>	Craig Stroud

Project Estimates	Actual	Budget/Est	Prior						
Capital Cost:	Expend	2007-2008	Years	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	Total
Construction	\$0	\$0	\$0	\$75,000	\$0	\$0	\$0	\$0	\$75,000
<b>Total:</b>	\$0	\$0	\$0	\$75,000	\$0	\$0	\$0	\$0	\$75,000

**Funding Source:**

Fund Balance - Capital Reserve	\$0	\$0	\$0	\$51,000	\$0	\$0	\$0	\$0	\$51,000
Donations	\$0	\$0	\$0	\$24,000	\$0	\$0	\$0	\$0	\$24,000
<b>Total:</b>	\$0	\$0	\$0	\$75,000	\$0	\$0	\$0	\$0	\$75,000

**Annual Operating Budget Impact**

<b>Annual Revenues</b>	\$0	\$51,000	\$41,000	\$31,000	\$20,000	\$143,000
<b>Net Operating Contribution (Cost):</b>	\$0	\$51,000	\$41,000	\$31,000	\$20,000	\$143,000

<b>Project Description / Justification:</b>	<b>Estimated Useful Life (yrs):</b>	20	<b>First Full Fiscal Year of Operation:</b>	2009-10
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Expand the zoo's family farm to accommodate one or more additional species that interact with the visitors. Farm pigs and a cow are the current species identified for the addition. Furthermore, the construction would better demarcate the Family Farm portion from the Cascade Canyon portion of the Great Northwest exhibit, increasing visitor awareness that the exhibit was designed to simulate traveling from the peaks of the Cascade mountains to the waves of the Pacific ocean. Since the expansion was originally planned the zoo has added stormwater management elements. The Oregon Zoo Foundation has donated \$24,000 to fund this work.

## STAFF REPORT

IN CONSIDERATION OF ORDINANCE NO. 09-1212, FOR THE PURPOSE OF AMENDING THE FY 2008-09 BUDGET AND APPROPRIATION SCHEDULE RECOGNIZING DONATIONS TO THE OREGON ZOO, AMENDING THE CAPITAL IMPROVEMENT PLAN, AND DECLARING AN EMERGENCY

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Date: January 28, 2009

Prepared by: Craig M. Stroud  
503-220-2451

### BACKGROUND

The Oregon Zoo received restricted donations totaling \$575,825 from The Oregon Zoo Foundation (Foundation) and \$46,400 from the American Association of Zoo Keepers, Portland Chapter (AAZK) for FY 2008-09 that were not forecast when the budget was presented and adopted. This ordinance recognizes the new revenues and increases expenditure authority for the purposes described below.

#### *Red Ape Reserve Project*

The Red Ape Reserve project constructs a new Orangutan exhibit as part of the primates building. The primates building, constructed in 1959, has undergone significant renovations in the past five years. Following the theme "Forests of the World", the zoo has been transforming the building, in phases, from a mid-century relic to a state-of-the-art, naturalistic experience for visitors and animals. The Red Ape Reserve continues the transformation, becoming the cornerstone exhibit for the Asian forest wing of the building and housing the zoo's orangutans and gibbons. The exhibit is scheduled to open to the public during the 2009 summer.

The adopted Capital Improvement Plan (CIP) includes the Red Ape Reserve project with a total cost of \$1.8 million. The Foundation is donating \$438,725 and AAZK is donating \$46,400 designated for use in the exhibits construction and finish elements. These funds will help cover higher than forecast construction costs, and additional project elements, such as storm water capture. This ordinance recognizes the revenue and capital outlay in the Capital Fund, as well as amends the CIP to increase the Red Ape Reserve total project cost to \$2,285,125.

#### *Tiger Viewing Enhancement*

The zoo's tiger viewing could be improved. The exhibit was constructed in 1959 and is laid out so that visitors are required to look over a three foot tall metal railing, hedge, and concrete barrier to view the animals, making it difficult for some guests to see the tigers. Staff frequently observes adults lifting children and holding them against the railing to help with tiger viewing.

To improve viewing, the zoo will eliminate portions of the barrier and install three covered structures with floor to ceiling glass partitions. This modification provides visitors weather protection, as well as provides excellent views for all guests. The Foundation is donating \$47,500 for this enhancement. This ordinance recognizes the revenue and capital outlay in the Capital Fund.

#### *Family Farm Expansion*

The zoo capital budget and CIP currently includes a \$51,000 expansion of the Family Farm to accommodate one or more new species, and to better demarcate the Family Farm from Cascade Canyon. The Great Northwest portion of the zoo includes both these exhibits, and was designed to simulate traveling from the peaks of the Cascade Mountains to the waves of the Pacific Ocean.

Since the expansion was originally planned, the zoo has added storm water management elements. The Foundation is donating \$24,000 to fund this additional work. This ordinance recognizes the revenue and capital outlay in the Capital Fund, as well as amends the CIP to increase the Family Farm total project cost to \$75,000.

***Green Vehicle***

The Foundation is donating \$30,000 for the purchase of a signature vehicle that emphasizes sustainability and green environmental practices. This signature vehicle will promote the Oregon Zoo and the vehicle's green environmental aspects. This ordinance recognizes the revenue and capital outlay in the Capital Fund.

***Elephant Program Study***

The Foundation is donating \$25,000 to study the zoo's elephant program. The study will primarily include elephant husbandry and management techniques, facility improvements, and programmatic considerations for managing an off-site elephant facility. While the work will inform the zoo bond funded elephant facility projects, the study is primarily focused on program considerations that cannot be bond funded. This ordinance recognizes the revenue and expenditures in the General Fund.

***Animal Enrichment***

Private sources donated \$10,600 restricted to zoo animal enrichment items. This ordinance recognizes the revenue and expenditures in the General Fund.

**ANALYSIS/INFORMATION**

- 1. Known Opposition:** None known.
- 2. Legal Antecedents:** ORS 294.326(3) provides an exemption to Oregon Budget Law allowing for the expenditure in the year of receipt of grants, gifts and bequests received by a municipal corporation in trust for a specific purpose.
- 3. Anticipated Effects:** This action allows the department to recognize the donations dedicated to the purpose described in this report and make expenditures to fulfill the terms of the donations.
- 4. Budget Impacts:** This action requests the recognition of \$622,225 in donations and private contributions as reflected in Exhibit A to this ordinance for the purposes described above. It also increases appropriation authority for the Oregon Zoo in the General Fund by \$35,600 and in the Metro Capital Fund by \$586,625, as described in Exhibit B, Schedule of Appropriations.

**RECOMMENDED ACTION**

The Chief Operating Officer recommends adoption of this Ordinance.

Agenda Item Number 7.1

**Resolution No. 09-4018**, For the Purpose of Approval of the Regional Travel  
Options Program Work Plan and Funding Sub-allocations for Fiscal Year 2009-  
2010

Metro Council Meeting  
Thursday, February 19, 2009  
Metro Council Chamber

BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF APPROVAL OF THE ) RESOLUTION NO. 09-4018  
REGIONAL TRAVEL OPTIONS PROGRAM )  
WORK PLAN AND FUNDING SUB- )  
ALLOCATIONS FOR FISCAL YEAR 2009-2010 ) Introduced by Councilor Rex Burkholder

WHEREAS, the Metro Council and Joint Policy Advisory Committee on Transportation established funding levels for the Regional Travel Options Program in the 2008-2011 Metropolitan Transportation Improvement Program through the Transportation Priorities funding process; and

WHEREAS, the Metro Council approved a five-year strategic plan for the Regional Travel Options Program in March 2008 that established goals and objectives for the Regional Travel Options Program; and

WHEREAS, the Regional Travel Options Subcommittee of the Transportation Policy Alternatives Committee (TPAC) adopted proposed work plans and funding sub-allocations to TriMet and Wilsonville SMART for Regional Travel Options program activities in fiscal year 2009-2010 on January 9, 2009; and

WHEREAS, the proposed work plans and funding sub-allocations support implementation of the Regional Travel Options Program five-year strategic plan; now therefore

BE IT RESOLVED that the Metro Council hereby approves of the Regional Travel Options Program fiscal year 2009-2010 work plan and funding sub-allocations.

ADOPTED by the Metro Council this 19th day of February 2009.

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David Bragdon, Council President

Approved as to Form:

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Daniel B. Cooper, Metro Attorney

Resolution No. 09-4018

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## STAFF REPORT

### IN CONSIDERATION OF RESOLUTION NO. 09-4018, FOR THE PURPOSE OF APPROVAL OF THE REGIONAL TRAVEL OPTIONS PROGRAM WORK PLAN AND FUNDING SUB-ALLOCATIONS FOR FISCAL YEAR 2009-2010

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Date: December 29, 2008

Prepared by: Pam Peck  
Contact No.: 503-797-1866

#### BACKGROUND

The Regional Travel Options (RTO) Program implements regional policy to reduce reliance on the automobile and promote alternatives to driving for all trips. The program emphasizes all alternative modes of travel and all trip purposes, reflecting policies in the Regional Transportation Plan. The Metro Council approved a five-year strategic plan for the Regional Travel Options program in March 2008 that established goals and objectives for the program.

Key components of the RTO program include a collaborative marketing program, regional rideshare program, transportation management association program, and grant program that provides funds to partner agencies and organizations through a competitive project selection process. Program activities are implemented by partner organizations and agencies, as well as by Metro staff and consultant contracts administered by Metro.

The Metro Council and Joint Policy Advisory Committee on Transportation established funding levels for the Regional Travel Options Program in the 2008-2011 Metropolitan Transportation Improvement Program through the Transportation Priorities funding process. The Regional Travel Options Subcommittee of TPAC is charged with recommending detailed work plans, and grant awards and funding sub-allocations to partner agencies and organizations to support program implementation activities.

The subcommittee adopted the attached proposed work plan for fiscal year 2009-2010 (Attachment 1) at their December 10, 2008 meeting. The work plan continues implementation of the program's five-year strategic plan and includes recommendations for the sub-allocation of program funds to TriMet and Wilsonville SMART. The funding sub-allocations will result in an MTIP amendment that enables TriMet and Wilsonville SMART to apply directly to the Federal Transit Administration for funds to support RTO program implementation activities related to employer and community outreach.

In addition, the work plan budget designates the portion of Metro funds that will be awarded to Transportation Management Associations (TMA), government agencies and non-profit organizations through grants and funding agreements. Attachment 2 provides a summary of RTO grant awards recommended by the RTO Subcommittee of TPAC through a competitive process. TMA grants are not included in the summary, as TMA funds are awarded on an ongoing basis by the RTO Subcommittee to TMAs that meet performance criteria. Grant awards to individual TMAs for fiscal year 2009-2010 will be considered by the RTO Subcommittee in May 2009.

#### ANALYSIS/INFORMATION

1. **Known Opposition:** None.



## **2. Legal Antecedents:**

1991 Federal Clean Air Act Amendments. The need for a comprehensive regional TDM program was addressed in Metro Resolution No. 91-1474 (For the Purpose of Amending the FY 92 Unified Work Program to Include Air Quality Planning Activities), adopted July 25, 1991, in response to the Oregon Transportation Planning Rule and the Federal Clean Air Act Amendments of 1990.

TDM Subcommittee. The TPAC TDM Subcommittee was established by Metro Resolution No. 92-1610 (For the Purpose of Establishing the TPAC Transportation Demand Management Subcommittee), adopted May 28, 1992. Oversight for the development and evaluation of TDM strategies, and formation of final recommendations to Transportation Policy Alternatives Committee (TPAC), Joint Policy Advisory Committee on Transportation (JPACT) and Metro Council concerning TDM planning, programming and implementation activities were assigned to the Subcommittee.

TDM Relationship to DEQ's Ozone Maintenance Plan (Governor's Task Force on Motor Vehicle Emissions Reduction (HB 2214)). The task force recommended a base plan focused on specific strategies to maximize air quality benefits. The air quality strategies selected by the region formed the base for a 10-year air quality maintenance plan for the Portland area. The primary TDM transportation control measures (TCMs) in the maintenance plan are the employee commute options program (ECO) and the regional parking ratio program.

Transportation Management Association (TMA) Policy. The policy basis and funding strategy for TMAs was adopted through Metro Resolution No. 98-2676 (For the Purpose of Establishing a Policy Basis and Funding Strategy for Transportation Management Associations (TMAs) For the MTIP/STIP Development Process), adopted October 1, 1998. Metro Resolution No. 99-2864 (For the Purpose of Selection and Funding Allocation of \$1 Million to Transportation Management Associations For FY 2000 to FY 2003), adopted December 2, 1999) allocated regional funding to existing and new TMAs. Metro Resolution No. 02-3183 (For the Purpose of Revising the Regional Transportation Management Association (TMA) Policy to Provide Additional Regional Funding Options for TMAs), adopted May 2, 2002) revised TMA policy by calling for balanced support of existing TMAs with the start-up of new TMAs.

2000 Regional Transportation Plan. The RTP establishes regional TDM policy and objectives to help reduce vehicle trips and vehicle miles traveled per capita. Chapter 1 (Ordinance 00-869A-01 (For the Purpose of Adopting the 2000 Regional Transportation Plan; Amending Ordinance No. 96-647C and Ordinance No. 97-715B), adopted August 10, 2000, Resolution No. 00-2969B (For the Purpose of Adopting the 2000 Regional Transportation Plan as the Federal Metropolitan Transportation Plan), adopted August 10, 2000, and Ordinance No. 02-946A (For the Purpose of Adopting the Post-Acknowledgement Amendments to the 2000 Regional Transportation Plan (RTP)), adopted June 27, 2002) provides TDM policies and objectives that direct the region's planning and investment in the regional TDM program.

Regional Travel Options 5-Year Strategic Plan. The strategic plan established a new vision for the region's transportation demand management programs and proposed a reorganized and renamed Regional Travel Options program that emphasized partner collaboration to implement an integrated program with measurable results. JPACT and the Metro Council adopted the plan through Resolution No. 04-3400 (For the Purpose of Adopting the Regional Travel Options Program 5-Year Strategic Plan), which also renamed the TDM Subcommittee the RTO Subcommittee, and was adopted on January 15, 2004.

2035 Regional Transportation Plan. The federal component of the plan, pending air-quality analysis, was approved by Metro Council Resolution No. 07-3831B.01 (For the Purpose of Approving the Federal Component of the 2035 Regional Transportation Plan (RTP) Update, Pending Air Quality Conformity Analysis), adopted on December 13, 2007. The RTP establishes system management and trip reduction goals and objectives that are supported by the RTO program strategies.

Regional Travel Options 5-Year Strategic Plan. The strategic plan established goals and objectives for Regional Travel Options program for 2008 to 2013. JPACT and the Metro Council adopted the plan through Resolution No. 08-3919 (For the Purpose of Adopting the Regional Travel Options 2008-2013 Strategic Plan), adopted on April 3, 2008.

3. **Anticipated Effects:** Sub-allocates \$385,220 of RTO program funds to support the TriMet Employer Program and \$62,315 to support Wilsonville SMART's Community and Employer Programs in fiscal year 2009-2010.
4. **Budget Impacts:** The proposed budget includes \$21,357 in Metro funds to match federal grant funds for that will be used to support program administration, evaluation, and regional rideshare services.

## **RECOMMENDED ACTION**

Staff recommends the approval of Resolution No. 09-4018 as follows:

1. Approval of the fiscal year 2009-10 work plan and budget for the Regional Travel Options program described in Attachment 1 to the staff report, actual budget levels for RTO activities carried out by Metro will be established through the FY 09-10 Metro budget decision-making process.
2. Approval of the funding sub-allocations to TriMet and Wilsonville SMART described in described in Attachment 1 to the staff report.

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Regional Travel Options Program  
**FY 2009-2010 work plan**

Dec. 10, 2008

 Metro | [www.oregonmetro.gov](http://www.oregonmetro.gov)

## **Background**

The Regional Travel Options (RTO) Program implements regional policy to reduce reliance on the automobile and promote alternatives to driving for all trips. The program emphasizes all alternative modes of travel and all trip purposes, reflecting policies in the Regional Transportation Plan.

This scope of work identifies the activities and tasks that will be carried out by Metro RTO staff to implement the Regional Travel Options 2008-2013 Strategic Plan in fiscal year 2009-2010. The strategic plan was developed by the RTO subcommittee of the Transportation Policy Alternatives Committee (TPAC) in 2007 and adopted by the Metro Council in March 2008. The strategic plan established the following program goals:

Goal 1: Continue a regional collaborative marketing campaign to increase awareness and use of travel options and reduce drive-alone car trips.

Goal 2: Support employers and commuters to increase the use of travel options for commute trips.

Goal 3: Provide information and services to support increased use of travel options for all trips.

Goal 4: Promote and provide services that support increased use of travel options in local downtowns and centers.

Goal 5: Report progress to aid decision-making and encourage innovation.

Goal 6: Follow a collaborative decision-making structure that provides program oversight and advances the goals and objectives of the Regional Transportation Plan (RTP).

## **Key program objectives for fiscal year 2009-2010**

- Coordinate the regional collaborative marketing program and support implementation of ODOT Drive Less/Save More marketing campaign in the Portland metropolitan area.
- Administer RTO travel options, individualized marketing and Transportation Management Association (TMA) grants and provide technical assistance to grant recipients.
- Coordinate multi-agency employer and commuter outreach activities and support partner collaboration.
- Market CarpoolMatchNW.org and Metro Vanpool to employers and commuters in coordination with the multi-agency employer outreach program
- Work with partner organizations to develop a multi-state, on-line ridematching system, serving Idaho, Oregon and Washington.
- Collect, analyze and report data for each RTO program to ensure that funds are invested in the most cost effective ways

## **Collaborative marketing**

The RTO Collaborative Marketing Program works to increase awareness and use of travel options and to reduce drive-alone car trips. Metro's scope of work will focus on coordination of marketing activities carried out by all RTO partners to maximize the program's effectiveness and reach target audiences identified in the 2008-2013 RTO strategic plan. Partner coordination will be carried through the Collaborative Marketing Working group, the development of a regional events calendar and a regional earned media calendar.

Overall management of the Drive Less/Save More Marketing Campaign will shift from Metro to ODOT in June 2009. Metro RTO staff will continue to support implementation of the campaign in the Portland metropolitan area through development and coordination of earned media activities that highlight RTO programs, direct outreach at up to twelve community events selected in coordination with RTO partners, and the development of local campaign sponsors and partnerships. RTO staff will look for opportunities to collaborate with Metro's Sustainability Center to coordinate campaign outreach with other social marketing programs. In addition, Metro staff will also act as the liaison to the statewide effort and will disseminate campaign tools and information to RTO partners.

RTO staff will also work to promote the benefits of bicycling and walking and to increase the use of these modes for transportation purposes. Activities in this area will include disseminating safety messages and information and promoting the use of regional trails for transportation purposes. RTO staff will coordinate activities in this area with staff from Metro's Long-Range Transportation Planning and Trails Planning work groups and the regional Connecting Green Initiative. Marketing and promotions in this area will focus on Metro's Bike There! and Walk There! programs.

Metro RTO staff will provide project oversight, support sales, marketing and distribution, and implement marketing strategies for the regional Bike There! map. The Bike There! map will be updated in FY 09-10 with additional support from Metro's Long-Range Transportation Planning section and in coordination with the Regional Trails Program to include updated bicycle suitability and safety information. Funds for printing the updated map were generated by the sales of the map over the previous three years.

Metro, Kaiser Permanente and other partners distributed more than 35,000 free copies of the Walk There! guidebook in FY 08-09. Metro is in discussions with Kaiser Permanente about making the program self-sustaining by reprinting the publication in early 2009 and selling a portion of the books (some books would continue to be provided for free through Kaiser's community health programs). In addition, Metro and Kaiser are exploring the development of a series of up to 20 community walking events to promote walking for short trips and use of regional trails for transportation purposes. If Kaiser provides funds for these projects in FY 08-09, Metro RTO staff will provide project oversight, support sales, marketing and distribution, and coordinate any remaining walking events in FY 09-10. Revenue from the guidebook sales will be used to support the development and printing of future editions.

Metro RTO collaborative marketing staff will be the primary Metro staff contact for RTO individualized marketing grants, as well as for any travel options grants that have a relationship to the collaborative marketing program. In this capacity RTO staff will review progress reports, compile comprehensive progress reports for the RTO Subcommittee and the FTA, and work with the RTO financial analyst to recommend payment of grant invoices. Metro RTO program staff, augmented by contracted professional services, will carry out the following tasks:

- Support marketing working group for effective coordination and partner communication.
- Support implementation of ODOT's Drive Less/Save More campaign in the Portland metropolitan area, coordinate earned media opportunities, represent the campaign at up to twelve community events, disseminate campaign information to RTO partners, and act as liaison to ODOT.
- Develop regional calendar of events, coordinate presence of RTO partners and provide staff support for one community event per month.
- Research and develop white papers and fact sheets to support consistent messaging in RTO marketing activities.
- Develop RTO collateral materials consistent with the Drive Less/Save More campaign, including fact sheets, brochures, web pages, and other collateral materials.
- Provide oversight for Metro's regional Bike There! map product, implement map marketing strategies, oversee sales and distribution, and support collaboration with local and regional partners related to development of bike maps.
- Provide oversight for Metro's regional Walk There! guidebook, implement marketing strategies, oversee sales and distribution, and support collaboration with local and regional partners related to the promotion of walking for short trips.
- Review progress reports for individualized marketing projects and travel options grants related to collaborative marketing activities, compile comprehensive progress reports, and work with the RTO financial analyst to recommend payment of grant invoices.
- Coordinate collaborative marketing activities with other Metro departments to leverage resources and further disseminate program messages.

#### **Key milestones for FY 09-10**

- September 09 – Earned media and events calendars for next quarter completed.
- December 09 – Earned media and events calendars for next quarter completed.
- March 10 – Earned media and events calendars for next quarter completed.
- June 10 – Earned media and events calendars for next quarter completed.

#### **Deliverables**

- RTO collateral materials
- RTO events calendar
- RTO earned media calendar
- Updated Bike There! map
- Quarterly progress reports

## **Commuter services**

The 2008-2013 Regional Travel Options Strategic Plan calls for increased efforts to coordinate the outreach activities of partner's employer and commuter programs. The intended outcomes include avoiding duplication of effort, leveraging resources, and more strategic delivery of services to locations where the greatest impact can be attained. Employer and commuter programs are projected to reduce approximately 47,660,000 vehicle miles of travel per year during the plan timeline.

Currently, the following partners carry out employer and commuter programs: Metro, Oregon Department of Environmental Quality (DEQ), TriMet, Wilsonville SMART, Vancouver Commute Trip Reduction Program, Portland Transportation Options and Transportation Management Associations (TMAs).

A large portion of employer outreach is generated by the Employee Commute Options (ECO) program. The DEQ is responsible for oversight and implementation of the ECO program (OAR 340.242). In its current form, this program mandates that Portland-region businesses with over 100 employees at a given worksite must have a plan in place which aims to reduce by 10 percent from an established baseline the number of drive-alone auto trips to that worksite. This regulation has been in effect in the Portland region since 1996.

The DEQ, TriMet and other regional partners are currently working with 787 affected businesses, 85 percent of which are in compliance, which represents 668,000 employees (35 percent) of the region's employees, making this an effective means of conducting outreach to businesses around the region. This work plan builds on the existing ECO program framework and will encourage all employers working with RTO partners to achieve the 10 percent reduction goal and to use a survey similar to the ECO survey to measure progress.

RTO staff will explore opportunities to collaborate with Metro's Sustainability Center to better integrate agency employer outreach efforts, leverage investments in technology, and coordinate messages.

Metro will continue management of the regional vanpool program and provide subsidies to eligible groups of commuters. Beginning in FY 09-10, C-TRAN will no longer provide funding to Metro to subsidize Washington-based vans and will instead begin operation of their own vanpool fleet. Metro will continue to work closely with C-TRAN to market their vanpools to Portland area employers. Metro will begin work in January 2009 to release a new RFP for vanpool lease providers, building on lessons learned during 06-09 vanpool contract period.

Metro RTO program staff, augmented by contracted professional services, will carry out the following tasks to coordinate the employer program and provide commuter services:

- Coordinate partner outreach activities, facilitate communication between partners and identify a lead agency or organization for each employment site.

- Develop a standardized approach to conducting, tracking and evaluating employer outreach activities.
- Identify target markets and business sectors.
- Add to and standardize the amount of data collected on employer efforts.
- Create a web-based resource for employers in the Drive Less web site that links them to RTO partner programs and services.
- Implement a regional employer recognition program.
- Utilize and maintain a shared contact management database to track employer program contacts and outcomes.
- Provide assistance to other partners at strategically selected outreach events.
- Provide lead role in working with businesses needing rideshare assistance.
- Provide initial response to phone or web-generated contacts; assess level of interest and coordinate hand-off to appropriate external partner.
- Maintain ridematching database, create scatter maps and other outreach tools and collateral materials as needed.
- Review progress reports for travel options grants related to employer outreach activities, compile comprehensive progress reports, and work with the RTO financial analyst to recommend payment of grant invoices.
- Collaborate with Metro's Sustainability Center to better integrate agency employer outreach efforts, leverage investments in technology, and coordinate messages.

#### **Key milestones for FY 09-10**

- September 09 – Implementation of contact management database
- September 09 – Employer outreach coordination plan complete
- September 09 – Quarterly report completed
- December 09 – Collateral materials web site online (ongoing development)
- December 09 – Quarterly report completed
- March 10 – Quarterly report completed
- June 10 – Quarterly report completed

#### **Deliverables**

- Plan for standardizing, conducting and evaluating employer outreach activities.
- Contact management database.
- Collateral materials and web information
- Employer outreach calendar.
- Quarterly progress reports.



### **Traveler information tools**

This program activity serves to provide information and services supporting increased use of travel options for all trips. In FY 09-10 RTO staff will continue to work with partner organizations led by Washington State Department of Transportation (WSDOT) to develop a multi-state, on-line ridematching system, serving Idaho, Oregon and Washington. The proposed system will be an off-the-shelf program procured by WSDOT to replace a variety of systems currently in use by transit and rideshare agencies in the Northwest. This system will replace Metro's existing system, CarpoolMatchNW.org. Initial implementation is expected to take place late summer/fall 2008 with various system expansions taking place over the next two to three years. Development of a new marketing and outreach effort will be conducted, potentially at the state level in concert with other rideshare agencies and Oregon Department of Transportation (ODOT).

Metro RTO staff will carry out the following tasks in 09-10:

- Continue discussions Oregon Department of Transportation (ODOT) staff to expand their involvement and commitment to marketing and operation of the regional rideshare system.
- Work with WSDOT on implementation issues related to the new rideshare system.
- Establish contracts and agreements related to rideshare system operations and maintenance.
- Review progress reports for travel options grants related to traveler information tools, compile comprehensive progress reports, and work with the RTO financial analyst to recommend payment of grant invoices.

### **Key milestones for FY 08-09**

- September 09 – Quarterly report completed
- December 09 – Quarterly report completed
- December 09 – Ridematching system implementation and agreements
- March 10 – Quarterly report completed
- June 10 – Quarterly report completed

### **Deliverables**

- Ridematching system
- Quarterly progress reports

## **Downtowns and centers**

The Regional Travel Options Program promotes and provides services that support increased use of travel options in local downtowns and centers by supporting grants to local jurisdictions, non-profit groups and public private partnerships. The RTO program provides ongoing support to six area Transportation Management Association (TMAs). TMAs are nonprofit coalitions of local businesses and/or public agencies that work in centers and employment areas to strengthen partnerships with businesses to reduce traffic congestion and pollution by improving commuting options for their employees. The RTO Subcommittee will consider the results of a South Waterfront TMA feasibility study in FY 08-09. If the Subcommittee approves regional start-up funding for this TMA, Metro will provide services to seven TMAs in FY 09-10.

Metro RTO staff will carry out the following tasks related to downtowns and centers program objectives:

- Provide technical assistance for TMA project planning, implementation and evaluation activities.
- Develop work plans for each TMA that support the unique character of each area and recognize that each area is at a different level of development and has a unique mix of transportation infrastructure.
- Develop and manage TMA funding agreements.
- Coordinate meetings of TMA directors.
- Track TMA performance toward meeting outreach and performance targets.
- Provide progress reports to the RTO subcommittee.

Additional downtowns and centers objectives will be carried out through the Regional Travel Options grant program. Grant program tasks, milestones and deliverables are described in the program administration portion of this work plan.

## **Key milestones for FY 09-10**

- Sept 09 – TMA directors meeting held
- Jan 10 – TMA directors meeting held
- March 10 – TMA directors meeting held
- May 10 – TMA work plans and booster grant proposals presented to RTO Subcommittee.
- June 10 – TMA work plans and contracts finalized.

## **Deliverables**

- TMA work plans and agreements
- Quarterly progress reports

## **Measurement**

This program collects, analyzes and reports data for each RTO program to ensure that funds are invested in the most cost-effective ways. Evaluation reports are used to refine program development, marketing and implementation. RTO program staff will be responsible for carrying out Goal 5 (Measurement) of the RTO Strategic Plan and the RTO Evaluation Framework, approved in 2007.

The Evaluation Framework guides the level of analysis for each type of RTO project. It also clarifies that both RTO staff and RTO-funded partners have a key role in data collection. RTO will continue to use independent researchers to evaluate the program.

Metro's Travel Research and Modeling staff and Data Resource Center staff will be called upon to consult on the development of new research methods and tools.

Metro RTO staff will carry out the following tasks related to measurement and evaluation in FY 09-10:

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- Conduct on-going data collection and tracking for RTO-funded programs.
- Disseminate findings from the independent evaluation of RTO programs completed by PSU in FY 08-09.
- Provide technical assistance to all RTO-funded partners.
- Develop information-sharing partnerships.
- Explore new methods and tools for storing data, analyzing data and reporting.

## **Key milestones for FY 09-10**

- Present findings from the independent evaluation of RTO programs completed by PSU in FY 08-09.

## **Deliverables**

- Data is collected and methods and databases improved.
- Technical services provided to RTO partners.
- Information-sharing partnerships are developed.

## **Policy, funding and program administration**

This scope of work supports the program structure called for by the strategic plan including administration and management of RTO program functions by Metro.

The RTO program staff will:

- Chair and support RTO Subcommittee of TPAC, including logistics, scheduling and production of meeting summaries.
- RTO Subcommittee research and support on technical and financial issues.
- Create presentations about RTO program for Metro committees and regional partners.
- Administer contracts and agreements for RTO programs.

- Develop and submit FTA application for CMAQ grant funds and administer grants for RTO programs.
- Identify local matching funds sources for future years.
- Complete Business Energy Tax Credit (BETC) applications for the vanpool program.
- Develop the RTO work plan and program budget for fiscal year 10-11.
- Provide local transportation system plan support on achieving 2020 non-SOV targets.
- Provide staff support for demand management and parking components of the Regional Transportation Plan Update and the Transportation System Management and Operations (TSMO) policy update.
- Represent RTO program at Metro committees and jurisdictions and agency meetings.

**Key milestones for FY 09-10**

- Nov 09 – FY 09-10 work program and budget reviewed and adopted by RTO subcommittee
- Feb 10 – FY 09-10 work program and budget reviewed and adopted by TPAC, JPACT and the Metro Council
- June 10 – Submit BETC applications for FY 09-10 projects.

**Deliverables**

- FY 10-11 budget
- RTO subcommittee meeting summaries
- Quarterly progress reports

<b>RTO BUDGET 2009-2010</b>				
<b>Revenues: (as of 7-1-2008)</b>		<b>(BUDGETED) FY 09-10</b>		<b>Totals</b>
		1,800,000		1,800,000
MTIP Key 14442		606,712		606,712
MTIP Key 14441		17,510		17,510
Bike There! (Current year sales)		60,000		60,000
Walk There! (Current year sales)		10,000		10,000
Walk There! (Current Year Grant)		21,357		21,357
Metro match (General Fund)				
<b>Fund Balance:</b>				
BETC (prior years)		50,000		50,000
<b>Total Revenue to/from Metro:</b>		2,565,579		2,565,579
<b>Expenditures:</b>	<b>FTE</b>	<b>(BUDGETED) FY 09-10</b>		<b>Totals</b>
<b>Administration:</b>				
FTE	0.758	104,657		104,657
M & S		10,106		10,106
<b>Evaluation and Measurement:</b>				
FTE	1.500	167,513		167,513
M & S		11,192		11,192
<b>Collaborative Marketing:</b>				
FTE	1.220	102,977		102,977
Sponsorships		22,054		22,054
M & S		56,238		56,238
<b>Commuter Program:</b>				
FTE	1.500	144,993		144,993
TriMet		385,220		385,220
SMART		62,315		62,315
Ridematch		50,000		50,000
M & S		60,281		60,281
<b>RTO Grants:</b>				
FTE	0.600	85,879		85,879
Travel Options		262,500		262,500
Individualized Marketing		356,000		356,000
<b>TMA:</b>				
FTE	0.500	73,964		73,964
TMA Grants		153,000		153,000
Booster Grants		125,000		125,000
South Waterfront		75,000		75,000
<b>Regional Vanpool:</b>				
FTE	0.500	73,989		73,989
M & S		182,700		182,700
Total expenditures	6.578	2,565,579		2,565,579
Budget Surplus/(Shortfall)		0		(0)
<b>Partners Match:</b>				
Partners match		237,059		237,059
Total Match:		237,059		237,059
<b>Total Expense</b>		<b>2,802,638</b>		<b>2,802,638</b>



**Date:** December 29, 2008  
**To:** TPAC  
**From:** Pam Peck, Metro RTO Manager  
**Re:** **RTO Subcommittee Grants Awards Summary**

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### Background

The Regional Travel Options (RTO) program carries out regional strategies to increase use of travel options, reduce air pollution and carbon emissions, and improve mobility. The RTO program receives federal Congestion Mitigation and Air Quality (CMAQ) funds through the regional Flexible Funds decision-making process. The CMAQ funds are used to support grants to local jurisdictions and non-profit organizations to advance RTO program objectives. Projects must be carried out within the Metro boundary, which includes the urbanized portions of Clackamas, Multnomah and Washington counties.

The RTO Subcommittee of TPAC conducts a competitive process to select projects for RTO grant funding. In 2008, the Subcommittee established two grant categories with unique scoring and selection criteria, a general category for projects that will be carried out from July 2009 to June 2011, and an individualized marketing category for projects that will be carried out from March 2009 to June 2012. Proposals were scored by a Subcommittee working group and a package of proposed grant awards in each category was forwarded to the RTO Subcommittee for approval. This memo summarizes the grant awards in each category adopted by the Subcommittee at November 12, 2008 meeting.

### Travel options grants

#### Regional projects

Program and recipient	Grant award	Project description
Multi-Modal Trip Planner TriMet	\$68,930	The project will test the usability of an Open Source Multi-Modal Trip Planner System which is expected to increase mode share for bike, walk, and transit trips during peak commute hours while decreasing drive-alone trips.
Bike Commute Challenge BTA	\$25,000	The BTA bike commute challenge-work place against workplace-to see who can get the most people biking in September. Any business, non-profit or public agency is eligible to participate. Individual cyclists may also participate. This program reduces single-occupant vehicle use and traffic congestion and improved air quality by encouraging people to try bike commuting.
Carefree Commuter Challenge WTA	\$38,000	The Carefree Commuter Challenge is a regional auto trip reduction program creating excitement, competition and camaraderie at the workplace. WTA staff provides a turn-key trip reduction program to employers to help them motivate employees to take transit, bike, walk, carpool, vanpool and telecommuting instead of driving alone.

TriMet Bike Park  TriMet	\$50,000	TriMet will install electronic-access bike lockers at Beaverton Transit Center with space for 22 bikes and evaluate their effectiveness as a strategy for encouraging bicycling to transit. Evaluation will include the controlled-access bike parking facility at the Portland State University light rail station. As 39% of MAX bike passengers would drive if they did not have a bike-transit option, this project will increase the number of bicycling and transit trips while decreasing drive-alone trips.
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**Local projects**

<b>Program and recipient</b>	<b>Grant award</b>	<b>Project description</b>
Lloyd Links  Lloyd TMA	\$41,445	Lloyd Links will link Lloyd employees from the residence to their Lloyd work sites via personal contact and direct one-on-one assistance. This is coupled with education, promotion, incentives and evaluation.
Sunday Parkways  City of Portland	\$30,000	Sunday Parkways provide a car-free environment where families, cyclist, walkers and others can enjoy our streets and parks. Sunday Parkways reduce auto trips, improve air quality, increase the health and activity levels of residents and increase the awareness and acceptability of bicycling and walking as modes of travel in Portland. The grant will support three (3) Sunday Parkways in North and Northeast Portland in 2009.
Tigard Bike Map  City of Tigard	\$20,000	This project will replace the long outdated Tigard-area bike map published in 1983, with an upgraded and enhanced city bike-route map. The map would supplement the current Metro Bike There! Map, which provides limited coverage of Tigard and includes few low traffic (green) and moderate traffic (yellow) street designations in comparison with other areas. The inclusion of other information as grades, key neighborhood trails accessways, bus stops, transit and how to access transit, including commuter rail, will make it easier for bicyclists to use the bicycle for all types of transit trips. The map is part of a city strategy to make bicycling safer and more convenient through a variety of efforts.
Bike Racks for Commuters  WTA	\$15,000	Bike Racks for Commuters program will make staple racks available to businesses that participate in the WTA's Westside Commuter Club and will offer \$100 toward installation or city fees. Employers can add funding if there is a greater need for more than two racks. Employees will be encouraged to try cycling with well-sited bike parking on company property.
Wilsonville Bike/Ped Coordinator  Wilsonville SMART	\$80,000	The project will expand the SMART Options program by hiring a Bike and Pedestrian Coordinator who will implement priorities set forth in the City of Wilsonville's Bicycle and Pedestrian and Transit Master Plan. As well as creating tools, such as maps and brochures, this person will build on the established community walking and biking programs to engage the growing community interest and establish a structured program similar to the City of Portland's "Options Ambassadors".
Swan Island TNT (Trip Not Taken)	\$28,000	The project seeks to reduce vehicle miles traveled by encouraging Swan Island employees to relocate to adjacent neighborhoods in

Swan Island TMA		North and inner Northeast Portland and by helping residents of those neighborhoods find job and career opportunities on Swan Island.
Gresham Way Finding City of Gresham	\$50,000	The City of Gresham will install a network of pedestrian and bicycle way-finding signs to aid travelers in finding the locations of local amenities and facilities. The signs will include arrows and distance markers. The City will also produce a bicycle map for the Gresham area that will show bicycle routes and amenities.
Diverse Cultures Cycling Needs Assessment and Pilot Project Community Cycling Center	\$78,625	The proposed project aims to increase the awareness and acceptability of bicycling as a transportation option among minority and low-income participants in North and Northeast Portland by creating a culturally-specific program to meet the unique needs of a diverse community. The project will reach 250 people through ten community organizations included in a culturally-appropriate needs assessment. Results will be applied to develop a pilot program to increase bicycle trips and reduce car trips among these target audiences.

### Individualized marketing grants

Individualized marketing projects identify people within a specific geographic area who want to change the way they travel. The projects use personal, individualized contact to motivate travel behavior change. Projects in Portland and more than 300 cities around the world have achieved significant reductions in the number of people driving alone and increased the number of people cycling, walking and using transit.

Recipient	Grant award	Project	Timeline
City of Portland	\$200,000	North/Northwest SmartTrips (approx. 25,000 households)	Spring 2009 to Fall 2009
City of Gresham	\$100,000	Project will target residents who live within one-half mile of the Civic Drive MAX Station (approx. 6,500 households)	Spring 2009 to Fall 2011
City of Portland	\$300,000	Green Line SmartTrips (approx. 27,000 households in east Portland adjacent to MAX Green Line)	Summer 2009 to Fall 2010
City of Wilsonville SMART	\$228,480	Project will target residential areas of Wilsonville (approx. 5,942 households)	Summer 2010 to Fall 2011
City of Portland	\$171,520	Street Car Loop and South Waterfront SmartTrips (approx. 20,000 households, contingent on completion of Street Car Loop project)	Winter 2011 to Spring 2012

### For more information

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