



## King County

### Transportation, Economy and Environment Committee

#### STAFF REPORT

<b>Agenda Item:</b>	13	<b>Name:</b>	Jenny Giambattista
<b>Proposed No.:</b>	2013-B0048	<b>Date:</b>	April 30, 2013
<b>Invited:</b>	Matt Kuharic, Senior Climate Change Specialist, Department of Natural Resources and Parks Megan Smith, Environmental Policy Advisor, Executive Office Christina O'Claire, Strategic Planning and Analysis Supervisor, Department of Transportation		

#### SUMMARY

In 2012, King County adopted a comprehensive action plan, the Strategic Climate Action Plan, for how County government can reduce climate pollution and prepare for the impacts of climate change. This year the Transportation, Economy, and Environment ("TREE") Committee will focus on implementing this foundational plan with four focus sessions to take an in-depth look at the goals and programs outlined in the plan. Today's briefing is the second of these briefings and will explore the goals for the "Transportation and Land Use" section of the plan.

#### BACKGROUND

##### *King County Strategic Climate Action Plan*

In February 2012, the Council passed Ordinance 17270 which required the Executive to develop a Strategic Climate Action Plan ("SCAP"). The goals of this Plan are to provide: (1) "one-stop-shopping" on the issue of climate change for elected officials, staff, and community members; (2) help agencies coordinate their work; and (3) inform the business plans and budgets of individual County agencies. SCAP is the first cross-functional plan developed using the framework of strategic planning established in the 2010-2014 King County Strategic Plan ("KCSP"). The SCAP summarizes King County's goals, objectives, strategies and actions to reduce greenhouse gas emissions and prepare for the effects of climate change. It includes goals and objectives for both government operations and in the services it provides to the community.

The 2012 SCAP is organized around five goal areas of climate change action, both in the services County government provides and within King County's internal operations.

The five goal areas include:

1. Transportation and Land Use
2. Energy
3. Forests and Agriculture
4. Consumption and Materials Management
5. Preparing for Climate Change Impacts

Over the course of the year, Executive and Council staff worked collaboratively to develop the SCAP. The Council adopted it in December 2012.

*SCAP Briefings a Key Part of 2013 TrEE Committee Workplan*

This year the TREE Committee is focused on implementing this foundational plan with four briefings to take an in-depth look at the goals and programs outlined in the SCAP. The first briefing occurred in February and provided background on King County's GHG emissions inventory and Goal Area #4, Consumption and Materials Management.

**Today's briefing will focus on Goal Area #1, Transportation and Land Use (Goal Area #1).**

Briefing Three will address County government facility energy use reduction and renewable energy production (Goal Area #2).

Briefing Four will discuss forestry and agriculture (Goal Area #3) and preparing for the impacts of climate change (Goal Area #5).

Each briefing will address the following information:

- What percentage of county government/community emissions are from this goal area?
- What are the primary sources of emissions in this goal area?
- What are the actions (community and operational level) the county is doing to address these primary sources?

This staff report will provide an overview of the Transportation and Land Use Goal area. The attached presentation by Executive staff highlights the County's progress in implementing the strategies and actions of this goal area. Executive staff will also discuss the impact of a potential Transit service cut on GHG emissions in King County.

## **TODAY'S BRIEFING - TRANSPORTATION AND LAND USE GOAL AREA**

The Transportation and Land Use section of the SCAP includes strategies to reduce GHG emissions through the services that the County offers and strategies to reduce transportation related GHG emissions in County operations.

### County Services

Transit is the most important service King County provides for reducing community-level GHG emissions in King County. Nearly 25 percent of GHG emissions in King County come from personal vehicle travel. King County’s goal is to reduce the need for driving and provide and encourage the use of sustainable transportation choices such as public transit, alternative technology vehicles, ridesharing, walking and bicycling.

The SCAP includes the following objectives and strategies shown in Table 1 to reduce the need for driving and provide and encourage the use of sustainable transportation choices such as public transit, alternative technology vehicles, ridesharing, walking and bicycling.

**Table 1**  
**Strategies to reduce the need for driving and encourage sustainable transportation choices**

OBJECTIVES	STRATEGIES
<b>Objective S.1.1:</b> Provide and increase transportation choices	<p><b>Strategy A:</b> Provide and expand public transit service</p> <p><b>Strategy B:</b> Improve the reliability and efficiency of transit</p> <p><b>Strategy C:</b> Expand King County's partnerships with employers and businesses to support their efforts to reduce transportation-related greenhouse-gas emissions</p>
<b>Objective S.1.2:</b> Increase the use of alternative transportation vehicles and technologies	<p><b>Strategy A:</b> Collaborate with private industry, community groups, utilities and other agencies to build markets and infrastructure related to alternative vehicles and technologies</p> <p><b>Strategy B:</b> Demonstrate leadership by partnering in pilot projects that help improve the viability of alternative vehicles and technologies</p>
<b>Objective S.1.3:</b> Promote and invest in community design that reduces the need to drive and enables walking, bicycling and public transit use	<p><b>Strategy A:</b> Focus development within the Urban Growth Area and reduce development pressure on rural and resource lands</p> <p><b>Strategy B:</b> Use incentives, land-use designations, and zoning authority that create development and community design matched to the needs and preferences of transit</p>

users, pedestrians, and bicyclists

**Strategy C:** Maintain and expand the Regional Trails System

### **Performance Measures for Transportation Services Not on Track**

The SCAP includes performance measures and targets for each major goal area. For transportation services, the SCAP includes two measures:

#### **Measure 1: Annual passenger boardings on Metro Transit services**

The following targets are based on Puget Sound Regional's Council Transportation 2040 regional projections and would require a significant increase in funding for additional transit service.

2015: 122 million passenger boardings

2020: 137 million passenger boardings

2040: 214 million passenger boarding

Metro reports in 2012 it will achieve 115 million boardings and is not on track to achieve its 2015 target. The projected funding shortfall will significantly impact Metro's passenger boarding targets.

#### **Measure 2: Percent of commuters in King County not driving alone**

Target: 10 percent reduction in drive alone rates below 2011 by 2015.

Executive staff will provide a progress report on drive alone rates at today's briefing.

#### County Operations

Addressing transportation related emissions for County operations is also an important focus of the SCAP because gas and diesel from County operations contribute to the County's GHG emissions. As shown in Table 2, the SCAP includes strategies to reduce the transportation related GHG emissions from County operations.

**Table 2**  
**Strategies to reduce increase the efficiency of King County’s vehicles and minimize their GHG emissions**

OBJECTIVES	STRATEGIES
<p><b>Objective O.1.1:</b> Reduce operational emissions from the current vehicles and phase in cleaner fuels, vehicles and technologies</p>	<p><b>Strategy A:</b> Integrate alternative fuels, vehicles and technologies into County vehicle fleets, where cost effective</p> <p><b>Strategy B:</b> Implement operational strategies such as anti-idling and other fuel-saving driving techniques, car sharing and vehicle right-sizing to reduce emissions from King County vehicles</p> <p><b>Strategy C:</b> Conduct a countywide campaign encouraging employees to use alternative transportation, drive efficiently, and minimize resource and energy usage at work</p>

**Performance Measures for Energy Use by County Vehicles**

The SCAP establishes a target for energy use by County vehicles at 10 percent below 2007 by 2015. During today’s briefing, Executive staff will present trend data on the energy used by Vehicles in Metro Transit, Wastewater, Solid Waste, and the General Fleet.

**ATTACHMENTS**

1. *Transportation and Land Use*, pages 15-20 of the 2012 Strategic Climate Action Plan.



# THE ACTION PLAN

The following pages present King County's climate change goals and plans for action.

## Goal Area 1: Transportation and Land Use

**INTRODUCTION.** Transportation accounts for nearly half of all GHG emissions produced in King County. Transportation emissions result from the burning of gasoline, diesel and other types of fossil fuels. About half of the emissions are from on-road passenger travel and half are from a category that includes freight, marine, and air travel. Between 2003 and 2010, per-person transportation-related emissions in King County declined slightly due to a reduction in passenger travel and an increase in vehicle efficiency.



**EXISTING COUNTY ACTIONS AND PROGRAMS.** County government influences transportation-related emissions by providing public transit, vanpool and ridesharing services and supporting walking and bicycling alternatives—choices that eliminate private vehicle trips, mitigate traffic congestion, and support efficient land use. King County Metro Transit is the region's main transit system, and the County supports non-motorized travel through the Regional Trails System. King County is also responsible for growth management and land-use regulations that encourage efficient land-use patterns and provide opportunities for walking and bicycling. King County also operates an extensive vehicle fleet that supports government functions, and the County is continually working to improve fuel-efficiency and is phasing in cleaner fuels.

- **Transportation choices.** Metro offers a range of public transportation services. It provided nearly 113 million bus passenger trips and more than 3 million vanpool passenger trips in 2011. The County's Commute Trip Reduction (CTR) program helped foster a 7.1 percent reduction in the "drive alone" rate countywide between 2007 and 2011 at CTR participating employers, resulting in 2.2 million fewer solo vehicle trips annually and an annual GHG reduction of more than 32,000 metric tons of carbon dioxide equivalent (MTCO<sub>2e</sub>).



*Metropool electric vehicle—a sustainable transportation choice offered by Metro Transit's Rideshare program*

- **Alternative transportation technologies.** Metro has been a leader in supporting and demonstrating new transportation technologies. Metro operates one of only five electric trolley systems in the U.S., and was the first transit agency in the nation to invest in articulated hybrid buses and, more recently, in all-electric zero-emission cars for the metropool commuting program.
- **Community design and regional planning.** King County promotes and invests in healthy community designs. The regional trails system, for example, supports more than 20 million bicycle and walking trips annually, including an estimated 5 million trips along the 175 miles of trails managed by King County. The County is working with schools to implement “Safe Routes to School” and is implementing programs such as the Transfer of Development Rights program that preserves land and steers development growth away from rural and resource lands into King County’s Urban Growth Area.



*Burke-Gilman Trail—part of the more than 175-mile-long King County Regional Trails System*

**COORDINATION WITH OTHER PLANS.** The Transportation and Land Use goals are coordinated with the following plans:

- King County Strategic Plan
- King County Comprehensive Plan
- Metro’s Strategic Plan for Public Transportation
- 2010 King County Energy Plan
- King County Open Space Plan

**ACCOUNTABLE AGENCIES.** The *Department of Transportation* is the overall lead for this goal area. The *Metro Transit Division* is responsible for strategies related to transit services including bus transit, vanpool, ride matching and commute trip reduction efforts. The *Fleet Administration Division* is the lead for efforts related to government fleet vehicles, including alternative transportation vehicles and technologies, and chairs a Fleet Managers Group that includes representatives from the Airport, Solid Waste, and Wastewater Treatment Divisions. Strategies related to the Regional Trails System are led by the *Parks and Recreation Division*. The *Department of Permitting and Environmental Review* is responsible for strategies related to land-use regulations.



COUNTY SERVICES

**GOAL S.1:** King County will reduce the need for driving and provide and encourage the use of sustainable transportation choices such as public transit, alternative technology vehicles, ridesharing, walking and bicycling.

► **Measure 1:** Annual passenger boardings on Metro Transit services

★ **Target 1:** Consistent with the Puget Sound Regional Council's *Transportation 2040* regional transportation plan's projection that boardings on transit services in the region will double by 2040, Metro will strive to achieve the following targets:

- 122 million passenger boardings by 2015
- 137 million passenger boardings by 2020
- 214 million passenger boardings by 2040<sup>1</sup>

► **Measure 2:** Percentage of commuters in King County using different transportation modes including driving alone, transit, biking and walking, as measured by the Washington State Commute Trip Reduction survey

★ **Target 2:** Achieve a reduction in the drive-alone rate of 10 percent below 2011 levels by 2015; the Washington State Commute Trip Reduction Board will define additional targets for 2020 during the 2014 Washington legislative session.<sup>2</sup>

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<b>Objective S.1.1:</b> Provide and increase transportation choices	<p><b>Strategy A:</b> Provide and expand public transit service</p> <p><b>Strategy B:</b> Improve the reliability and efficiency of transit</p> <p><b>Strategy C:</b> Expand King County's partnerships with employers and businesses to support their efforts to reduce transportation-related greenhouse-gas emissions</p>
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<b>Objective S.1.3:</b> Promote and invest in community design that reduces the need to drive and enables walking, bicycling and public transit use	<p><b>Strategy A:</b> Focus development within the Urban Growth Area and reduce development pressure on rural and resource lands</p> <p><b>Strategy B:</b> Use incentives, land-use designations, and zoning authority that create development and community design matched to the needs and preferences of transit users, pedestrians, and bicyclists</p> <p><b>Strategy C:</b> Maintain and expand the Regional Trails System</p>

<sup>1</sup> Developed as part of the SCAP process; builds on goals of the Puget Sound Regional Council's *Transportation 2040* regional transportation plan

<sup>2</sup> Based on Washington State Commute Trip Reduction Board's goals

COUNTY OPERATIONS

**GOAL O.1:** King County will increase the efficiency of its vehicle fleets and minimize their greenhouse-gas emissions.

► **Measure 1:** Energy use by County vehicles

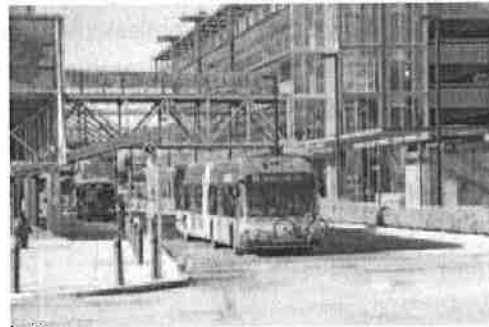
★ **Target 1:** In its vehicle operations, King County shall reduce normalized net energy use, compared to a 2007 baseline, by at least 10 percent by 2015.

OBJECTIVES	STRATEGIES
<p><b>Objective O.1.1:</b> Reduce operational emissions from the current vehicles and phase in cleaner fuels, vehicles and technologies</p>	<p><b>Strategy A:</b> Integrate alternative fuels, vehicles and technologies into County vehicle fleets, where cost effective</p> <p><b>Strategy B:</b> Implement operational strategies such as anti-idling and other fuel-saving driving techniques, car sharing and vehicle right-sizing to reduce emissions from King County vehicles</p> <p><b>Strategy C:</b> Conduct a countywide campaign encouraging employees to use alternative transportation, drive efficiently, and minimize resource and energy usage at work</p>

THE ACTION PLAN Goal Area 1: Transportation and Land Use

## PRIORITY ACTIONS:

- **Revise transit service to be more productive and attractive.** Consistent with the Regional Transit Task Force recommendations and the *Strategic Plan for Public Transportation*, Metro will place high priority on transit service to employment and residential centers while also ensuring social equity and geographic value. In September 2012, Metro made major service revisions guided by its new strategic plan, and future changes to bus routes and schedules will also be aligned with this plan to make the transit system more productive and effective and to attract more riders.
- **Implement RapidRide.** Metro launched the third and fourth of six planned RapidRide bus rapid transit lines in 2012. The final two RapidRide lines will begin operation in 2013: downtown Seattle to the King-Snohomish line and Renton to Burien. RapidRide is designed to provide frequent, convenient service between major regional destinations as a way of improving the reliability and efficiency of transit service.
- **Promote transit-oriented development.** The County will work with cities and other partners to implement a federal Sustainable Communities Grant. This grant will guide transit-oriented development along high-capacity corridors. As part of this effort, the County will carry out a “catalyst” project around the Northgate Urban Center in north Seattle, promoting integrated planning and support for housing, mixed-use development, and seamless connections between bus and light rail transportation modes. The County will also promote transit-oriented development at park-and-ride lots around the county. By participating in joint planning efforts for transit-oriented development, the County will use incentives, land-use designations, and zoning authority that lead to development and community design matched to the needs and preferences of transit users, pedestrians, and bicyclists.
- **Maintain and expand regional trails.** King County will continue to develop and maintain an interconnected countywide system of regional trails to promote options for nonmotorized transportation, especially in historically underserved areas and in communities with poor health indicators relative to the county population as a whole. In collaboration with five south county cities, King County has begun planning and designing the Lake to Sound Trail, which, when completed, will be a 16-mile nonmotorized



*RapidRide A Line bus at the Federal Way Transit Center. Metro Transit's RapidRide lines provide frequent service all day between major King County destinations.*



*Metropolitan Place transit oriented development project in Renton*

trail from Lake Washington in Renton to Puget Sound in Des Moines. King County's Parks Levy, which supports essential operation and priority development of the regional trails system, will be up for renewal in 2013.

- **Expand commute trip reduction program.** As funding allows, the County will expand Metro's participation in the Washington State Commute Trip Reduction employer partnerships program. This program supports King County businesses' efforts to help employees choose more sustainable transportation. King County will also continue to implement a CTR program at most King County worksites.
- **Continue green fleet initiatives.** King County's vehicles account for approximately 65 percent of energy-related GHG emissions from County government operations. The County's fleets will continue to implement strategies such as anti-idling, car sharing and vehicle right-sizing, and will phase in more-efficient, lower-emissions hybrid and electric vehicles as funding and technologies allow, Metro will continue to replace diesel buses with hybrid and other cleaner alternatives, and is also planning to test an all-electric battery-powered bus.