



New Challenges Require New Tools: Innovative Approaches to Achieve Climate Stabilization

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HealthScape Program

King County Initiative integrating land use, transportation, health, and global warming



Project Managers

- Karen Wolf, KC Executive's Office
- Christina O'Claire, KC DOT

Prime Consultant

- Dr. Larry Frank, Professor, UBC

Advisory Committee

- Transportation Planners
- Architects
- Bankers
- Air quality experts
- Public Health Officials
- Staff from municipalities



With an increase of just 5% in a neighborhood's walkability:

- 6.5% fewer miles driven each day per person
- 5.5% less major air pollutants
- 32% more time spent per person being physically active
- Lower BMI or body mass index





Transit use is highest
where walking is most
prevalent





King County

HealthScape

Community design for health and the environment

Transportation Programming Tool to Evaluate Non-motorized Projects

- Based on evidence from research
- Adaptable to different funding, policy and geographic contexts
- Flexible for users – can use digital (GIS) or analog (maps, field visits) to evaluate projects



King County

HealthScape

Community design for health and the environment

Health Assessment Tool

Create a tool that can evaluate potential health and climate change impacts of land development actions

- Comprehensive plans
- Changes in development regulations
- Changes in neighborhood plans
- Transit-Oriented Development



SW 98th St. Corridor Enhancement: Scaping the Grounds



Climate Change Goals



King County

- By 2050, 80% reduction over 2007 levels



City of Seattle

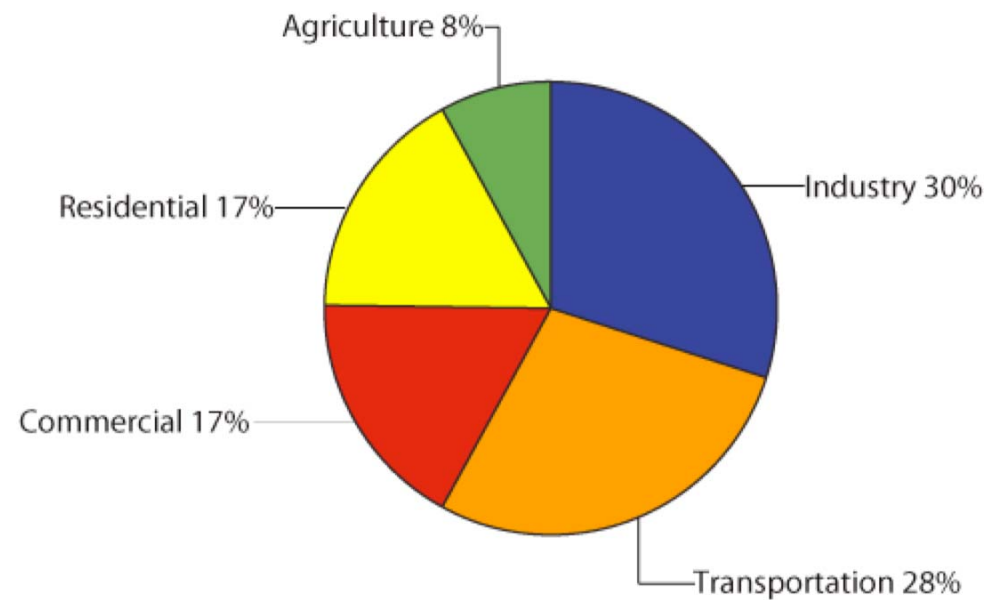
- By 2012, 7% reduction over 1990 levels
- By 2024, 20% reduction over 1990 levels
- By 2050, 80% reduction over 1990 levels



- By 2020, reduction to 1990 levels
- By 2035, reduction to 25% below 1990 levels
- By 2050, reduction to 50% below 1990 levels

Greenhouse Gas Emissions by Sector

United States, 2004



Total Emissions* = 7,074 MMT CO₂E

* Net Emissions (Sources + Sinks) = 6,204 MMT CO₂E

** High GWP Gases include: HFCs, PFCs, and SF₆

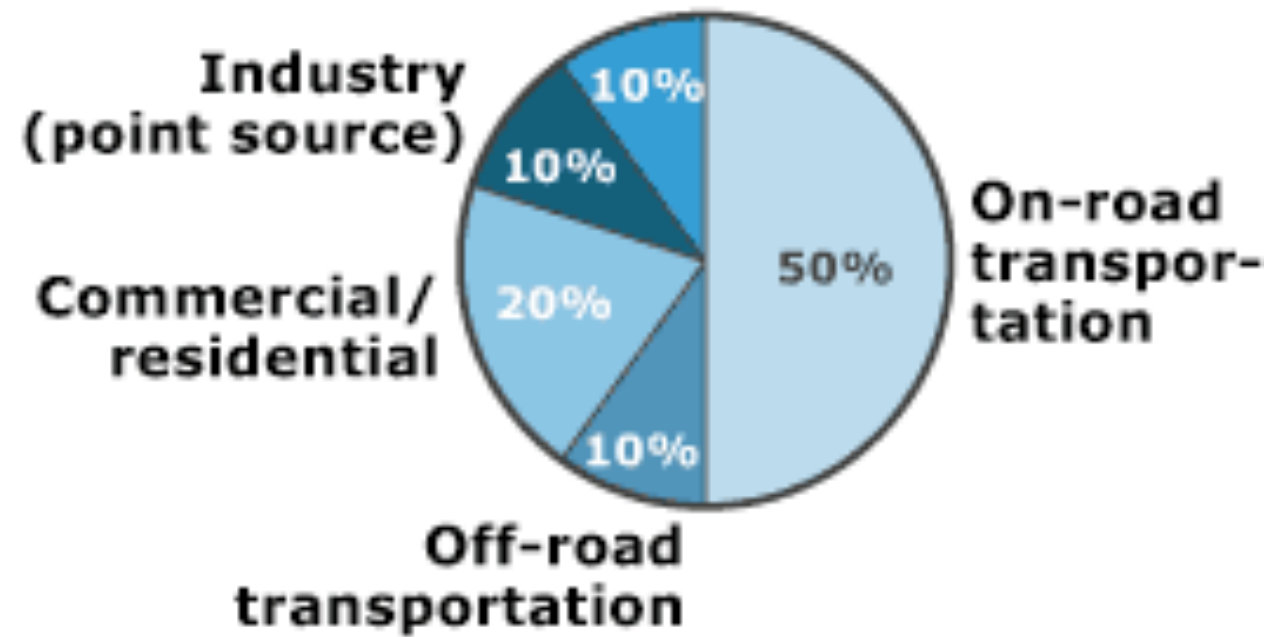
Data expressed in Million Metric Tons of Carbon Dioxide Equivalents (MMT CO₂E)

Source: US EPA Inventory of Greenhouse Gas Emissions and Sinks, 2006.

King County Community Greenhouse Gas Emissions

23,000,000 MTCO₂e

Electricity



Outline of Presentation

- Karen Wolf: *Context* ✓
- Lawrence Frank: *Research*
- Kacey Lizon: *iPlace3s Demonstration*
- Richard Gelb: *Mapping CO2 Emissions*
- Jemae Hoffman: *Seattle Application*