

Washington County Sustainability Program

Progress Report
2008-2010

Definition of Sustainability

- To meet the current economic, social and environmental needs while ensuring future generations can meet their needs
- A process of continuous improvement
- Three “legs of the stool”
 - Environment
 - Economic
 - Social Equity



Background

- Board of Commissioners approved Sustainability R&O in November 2009
- Framework included 13 objectives and a two-year work plan



Highlights from 2009-11

- Creation of Sustainability Liaisons
- Growth in annual Energy Fair participation
- First GHG Inventory for internal operations
- Certifications
 - Energy Star designation for PSB
 - “Green Fleet” certification for Fleet Services
 - NOAA “Limit 10” and ODFW fish protection designation for LUT’s road maintenance
- Significant reduction in building energy use, water use, waste disposal



Measuring Our Progress

- Two categories:
 - Internal Measures
 - Community Measures
- Use 2008 as baseline
- Set benchmarks to be achieved by 2013
- Measure annual progress



Measures

Internal Measures

- GHG emissions
- Energy use
- Water use
- Fleet fuel use
- Recycling/waste reduction
- Waterways protection

Community Measures

- Transit-supported development
- Auto use reduction
- Preservation of farm and forest land
- Community recycling/waste reduction
- Green building



Internal Measures



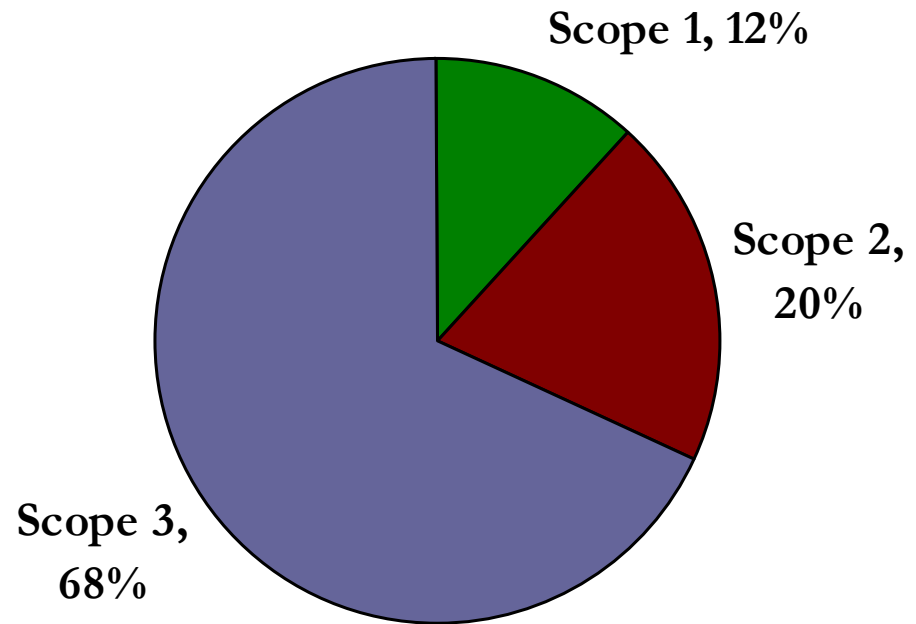
Internal Measures

- Greenhouse gas (GHG) emissions
- Energy use in County buildings
- Water use in County buildings
- Fuel efficiency of County fleet
- Recycling/waste reduction by County staff
- Waterways protection with road maintenance

2008 Greenhouse Gas Emissions from Internal Operations

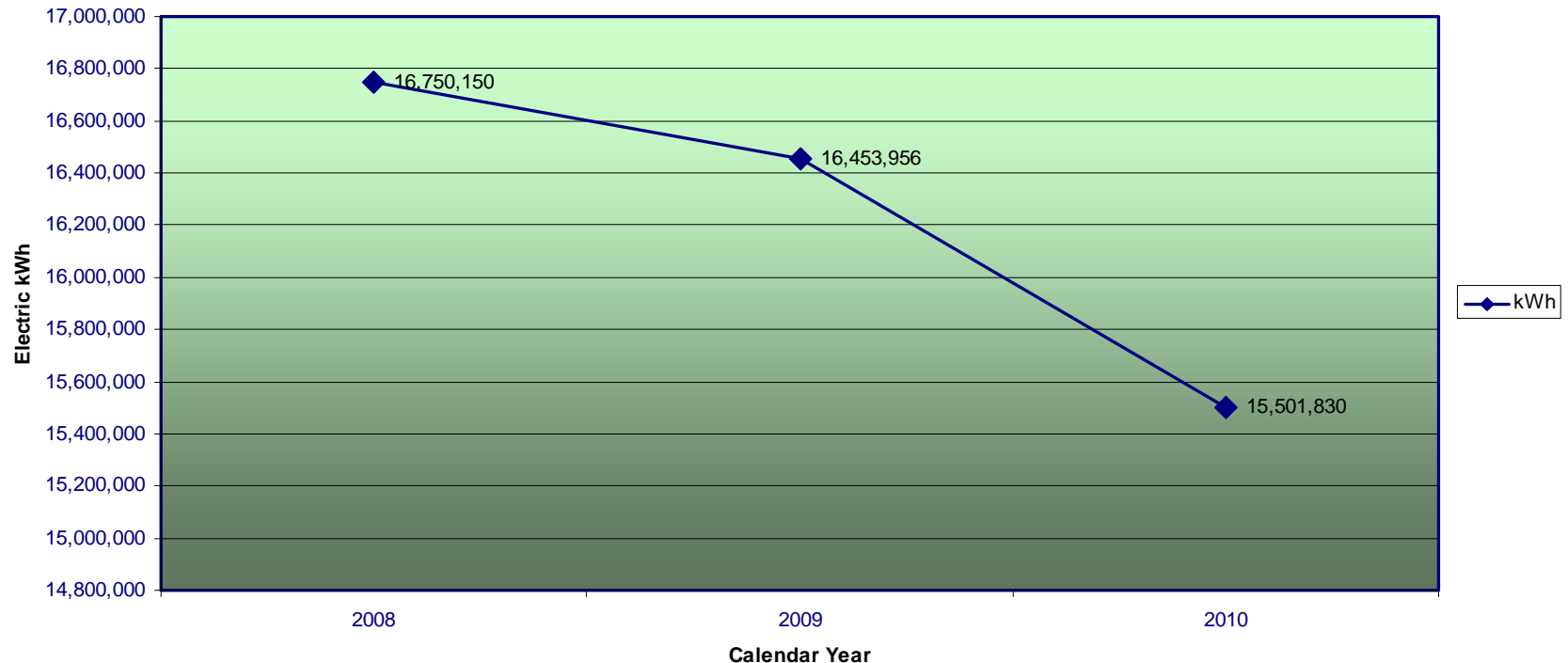
Washington County's Greenhouse Gas Emissions by Scope (2008)

- Scope 1 – Direct emissions from equipment and facilities
- Scope 2 – Indirect emissions from purchased electricity for buildings
- Scope 3 – All other indirect sources resulting from WashCo activities but coming from externally owned or controlled sources (i.e., “supply chain”)



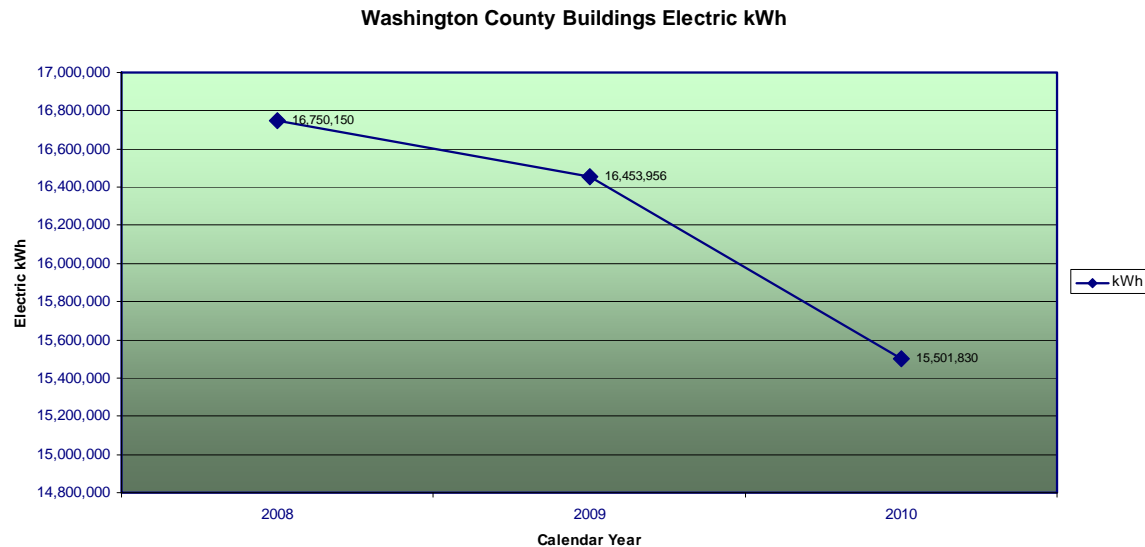
Washington County – All Buildings Electricity Usage 2008-2010

Washington County Buildings Electric kWh



Washington County – All Buildings Electricity Usage 2008-2010

- 7.5% decrease between 2008 and 2010
- Goal for 2013: 10% decrease



Energy Reduction Achieved By:

- LED Lights – Elevators
- LED Tasks Lights
- LED Exterior Lights
- Upgrade HVAC and DDC Controls
- Beaverton Clinic – High Efficient Heating Units
- Install Variable Speed Drives, Motors, & Pumps
- Strion Air Filtration System – PSB/Juvenile
- Occupancy Sensor for HVAC – PSB Auditorium
- Occupancy Sensor for Lighting
- Mechanical Tune-ups



Stimulus Projects

Stimulus Projects	Project Budget
PSB - Reroof	\$423,963
PSB - Solar	\$375,000
Beaverton Clinic replace roof top unit (2)	\$9,806.10
Courthouse replace chiller	\$448,605.14
Courthouse replace air handlers (6)	\$275,605.00
JSB/Courthouse upgrade Boiler (4)	\$179,930.05
PSB upgrade boiler (2)	\$77,206.50
Public Safety air handlers(8) Old Jail	\$9,120.37
WSC upgrade bay lighting	\$27,616.00
PSB outside lighting LED	\$50,581.00
	\$1,877,433.16

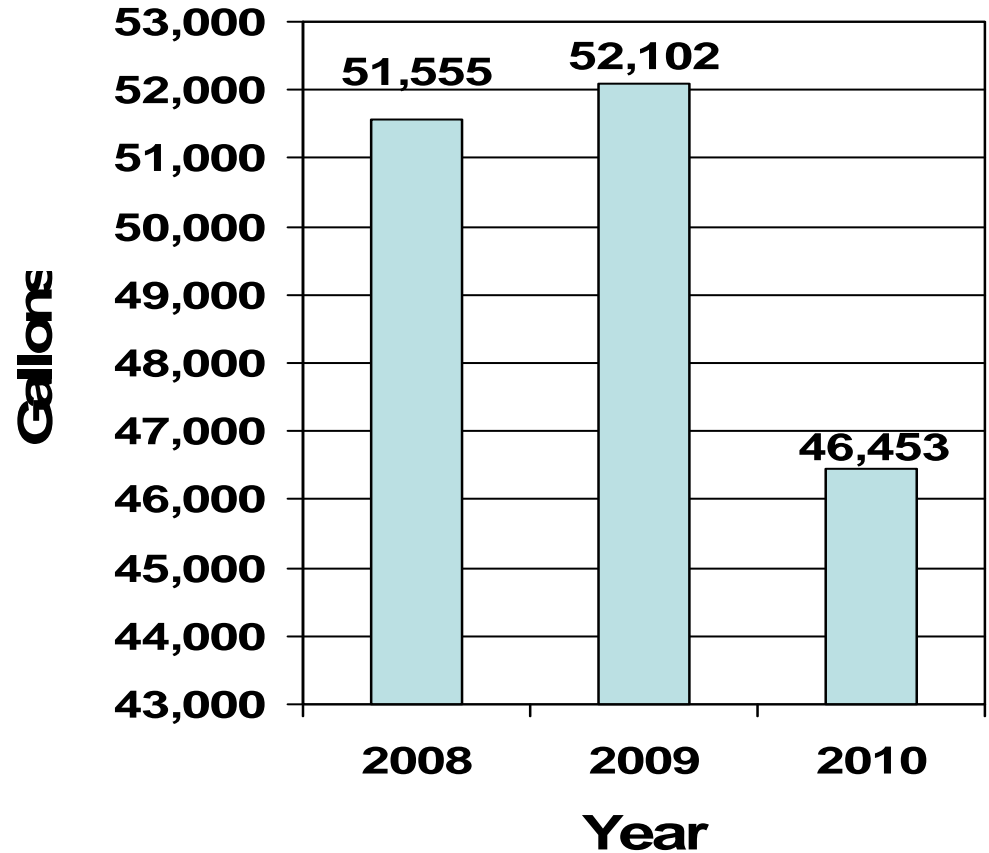
Solar Panel - PSB



- 66,239 kWh/AC produced per year

County Water Usage

- 10% decrease between 2008 and 2010
- Major change with landscape watering in 2010
- Goal for 2013: *20% reduction*



County Fleet

- Outcome: Improve fuel efficiency and reduce emissions of County fleet vehicles
- Strategies to date:
 - Green “Eco-Biz” certification for Fleet Service Center
 - State-funded diesel retrofits to reduce emissions
 - Implementation of “green” vehicle service standards (replace engine oil only at every other service interval)
 - Track fuel use/expense by department and vehicle
 - Review fuel economy criteria and engine options before acquiring replacement vehicles

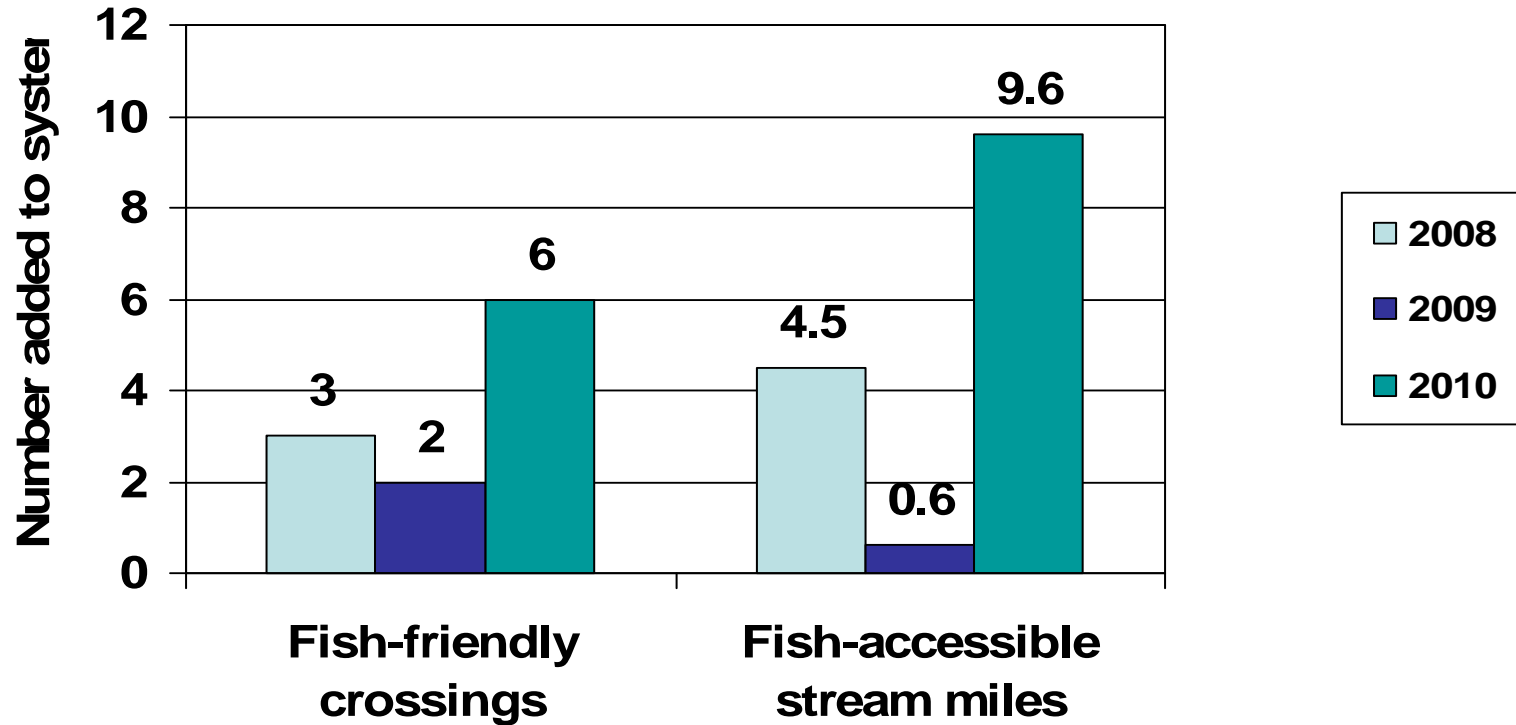


Waterways Protection

- Outcome: Use appropriate waterways protection strategies when doing routine road maintenance
- Measures: Maintain certification agreements
 - NOAA “Limit 10” Agreement: initiated in 2006, renewed in 2010, due for renewal in 2016
 - ODFW Fish Passage Programmatic Agreement: initiated in March 2010, due for renewal in 2015



Waterways Protection



Community Measures



Sustainability
Program *for the*
Generations

Presentation to Board of Commissioners
December 13, 2011

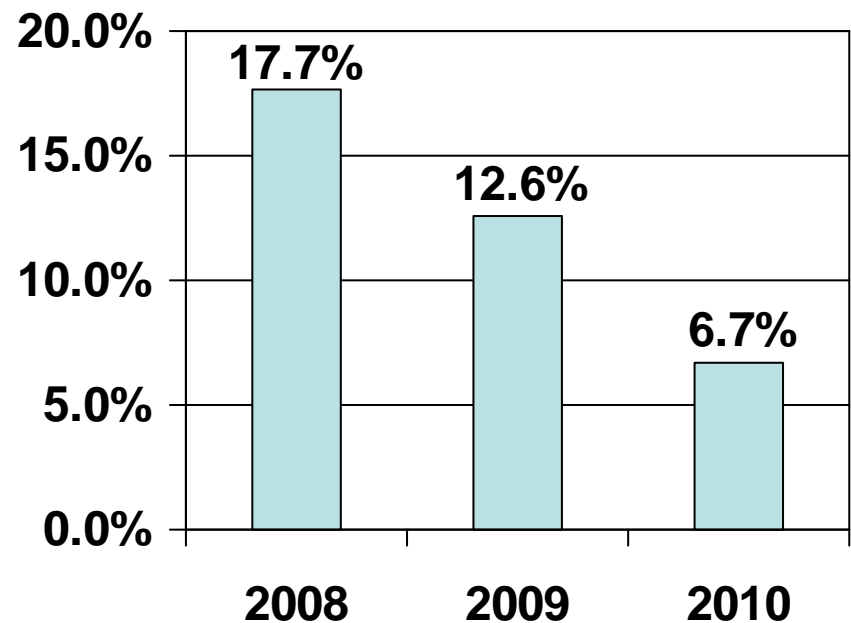
Community Measures

- Transit-supported development
- Auto use reduction
- Preservation of farm and forest land
- Community recycling/waste reduction
- Green building

Transit-Supported Development

Proportion of New Dwellings
in Transit-Supported
Developments

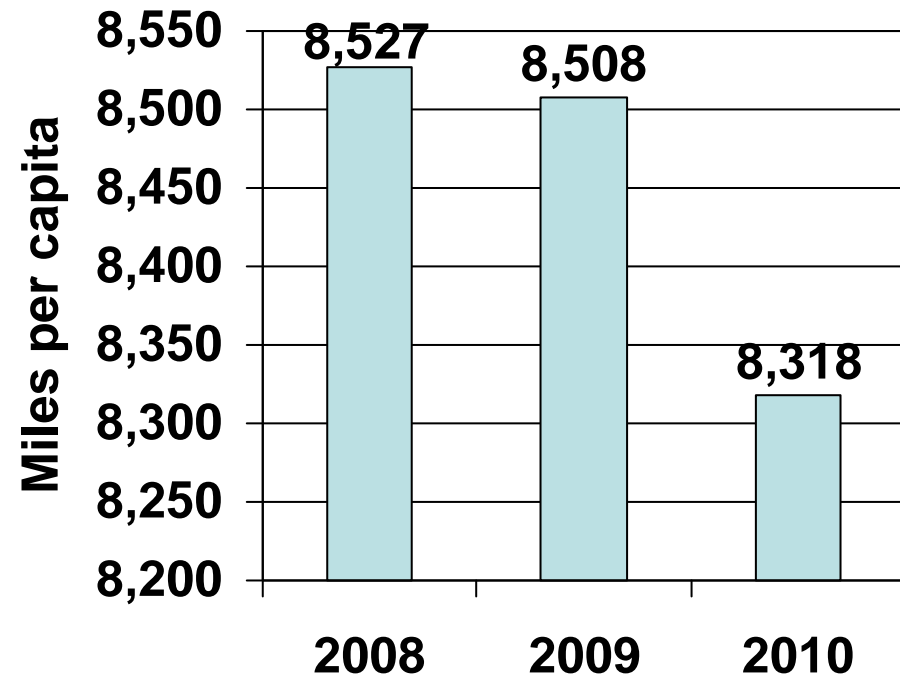
- Total proportion for FY2008-10:
12.4%



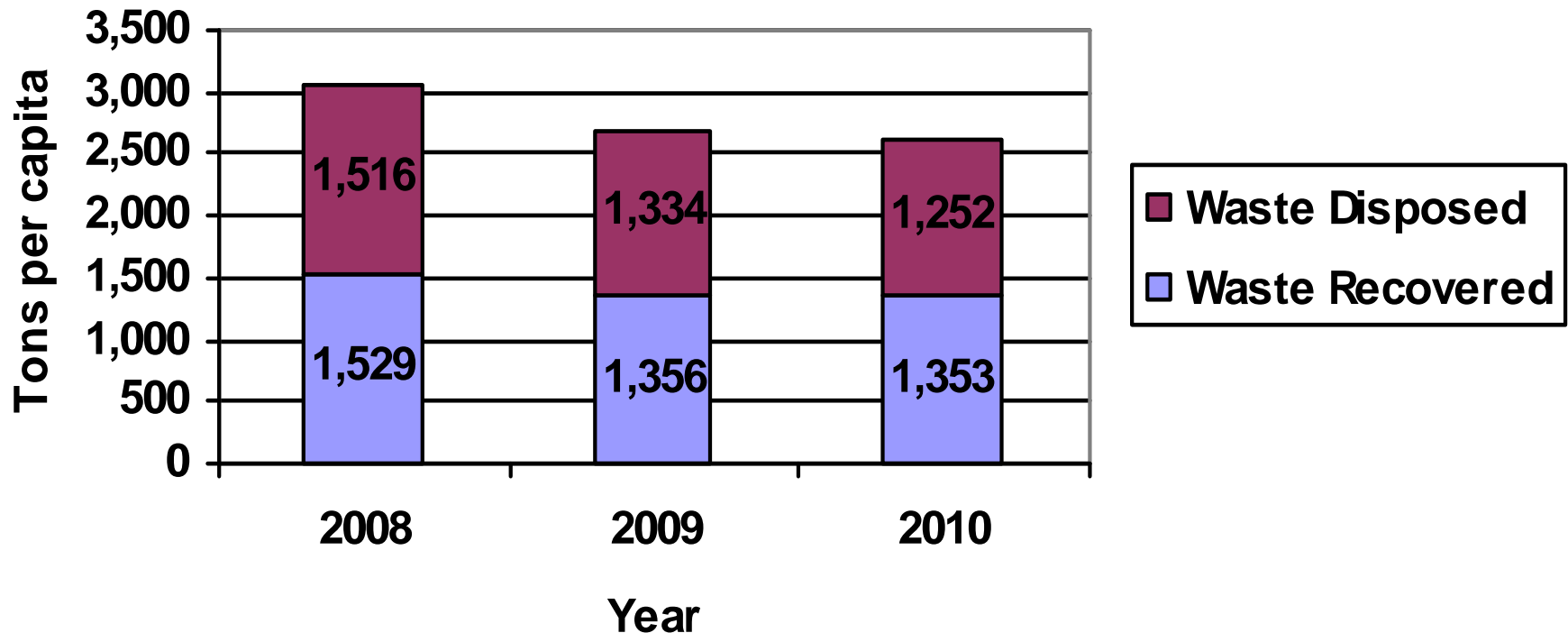
Auto Use Reduction

- Total reduction for FY2008-10: 2.5%

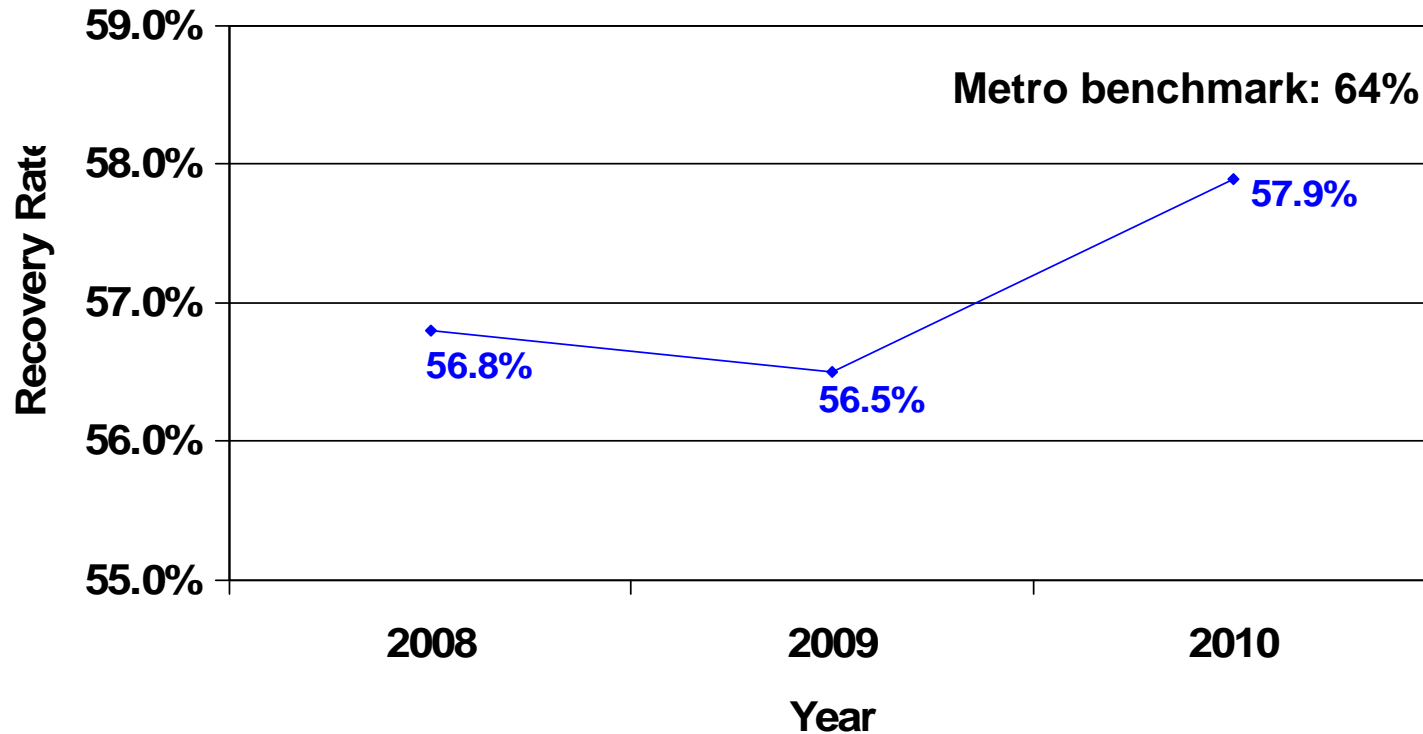
Community Vehicle Use -
Annual Miles per Capita



Community Recycling & Waste Reduction – Metro Region



Waste Recovery Rate* Metro Region



* Includes 6% recovery credits



Green Building: “Greening the Code”

- Assessment to be completed in 2012
- 2012 will serve as baseline
- Potential measures:
 - Buildings submitted for review under voluntary Oregon “Reach” code
 - Buildings seeking LEED certification
 - Buildings seeking Living Building Challenge certification
 - Projects utilizing LIDA techniques



Next Steps

- **Implement next two-year Sustainability Work Plan**
- **Continue measuring annual progress**
- **Internal Measures:**
 - Benchmark our GHG inventory results over time
 - Grounds and Parks ECO Certificate
 - Energy Star Certification for Juvenile Building
 - Fuel Usage/Reduction Plans for all departments
 - Electric vehicle infrastructure development
- **External Measures:**
 - Finish “Greening the Code” assessment
 - Finish measures for sidewalks, bikeways, bicycle ridership counts, preservation of farm/forest land



For more information

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Sustainability
Program *for the*
Generations

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