

# Portland Transportation Climate Action

Rail~Volution  
October 20, 2010

Peter Hurley, Portland Bureau of Transportation

Climate Action Plan

Transportation Climate Strategies  
Evaluation

Sustainable Transportation Access  
Rating System (STARS)

Principles

# Portland Climate Action Plan

Transportation GHGE: 38%

Urban Form & Mobility Goals:

- 10% by 2015
- 25% by 2020
- 40% by 2030

# Portland Climate Action Plan

## Urban Form & Mobility 2030 Objectives:

90% of residents can easily walk/bike to daily needs

Reduce per capita VMT 30%

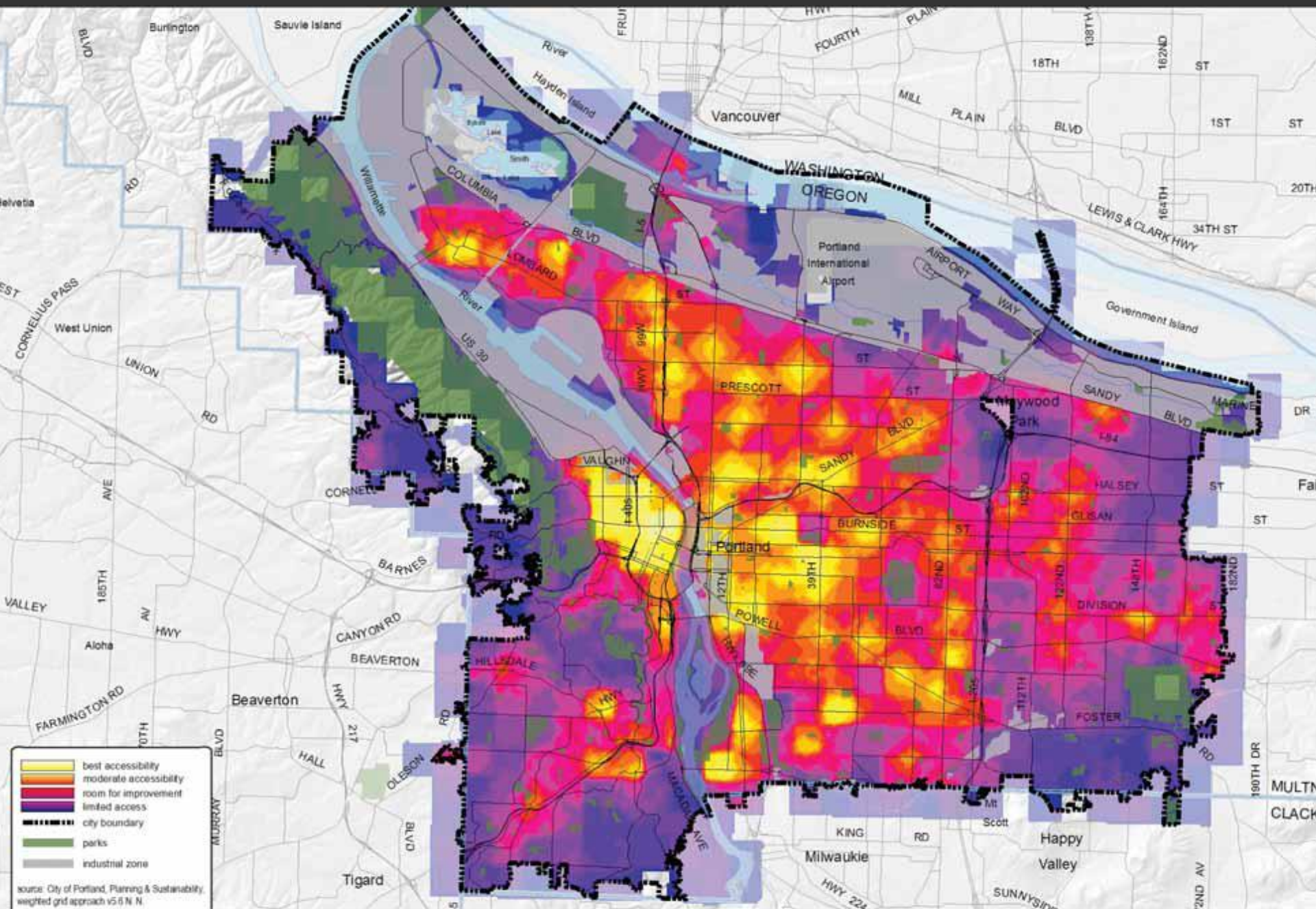
Reduce transport fuel life cycle GHG 20%

Improve road system performance

Improve freight movement efficiency

Increase passenger vehicle efficiency

# 20-minute neighborhood concept



best accessibility  
 moderate accessibility  
 room for improvement  
 limited access  
 city boundary  
 parks  
 industrial zone

source: City of Portland, Planning & Sustainability, weighted grid approach v5.6 N.N.

# Transportation Strategies Evaluation

Emissions profile:

> 98% from driving

< 2% from Bureau operations

# Transportation Strategies Evaluation

21 strategies evaluated

10 priority strategies

TDM, TSM

Parking Management

Land Use

Multimodal Facilities

Lighting

# Transportation Strategies Evaluation

24.3 Median commute miles per day for  
33 most populous US metro areas

20.3 Average daily miles for  
Portland area commute

2.9 B Miles saved compared  
to median

Transportation costs saved  
compared to median \$1.1B

\$15 per hour Estimated value of time  
spent commuting

100 million hours less  
traveled per year saves \$1.5B

Total savings  
per year \$2.6B



# Project-Level GHGE Projections

Roadway & transit projects

Multimodal projects

Bike projects

# STARS

Sustainable Transportation Access Rating  
System

“LEED for Transportation”

Framework for designing and/or rating:

Projects

Employer Programs

Plans



Voluntary, national system for public  
agencies & private sector consultants

# What is STARS?

Performance-based system focused on:

- Access
- Climate + Energy
- Cost Effectiveness

Multimodal: Compares performance  
across all modal strategies

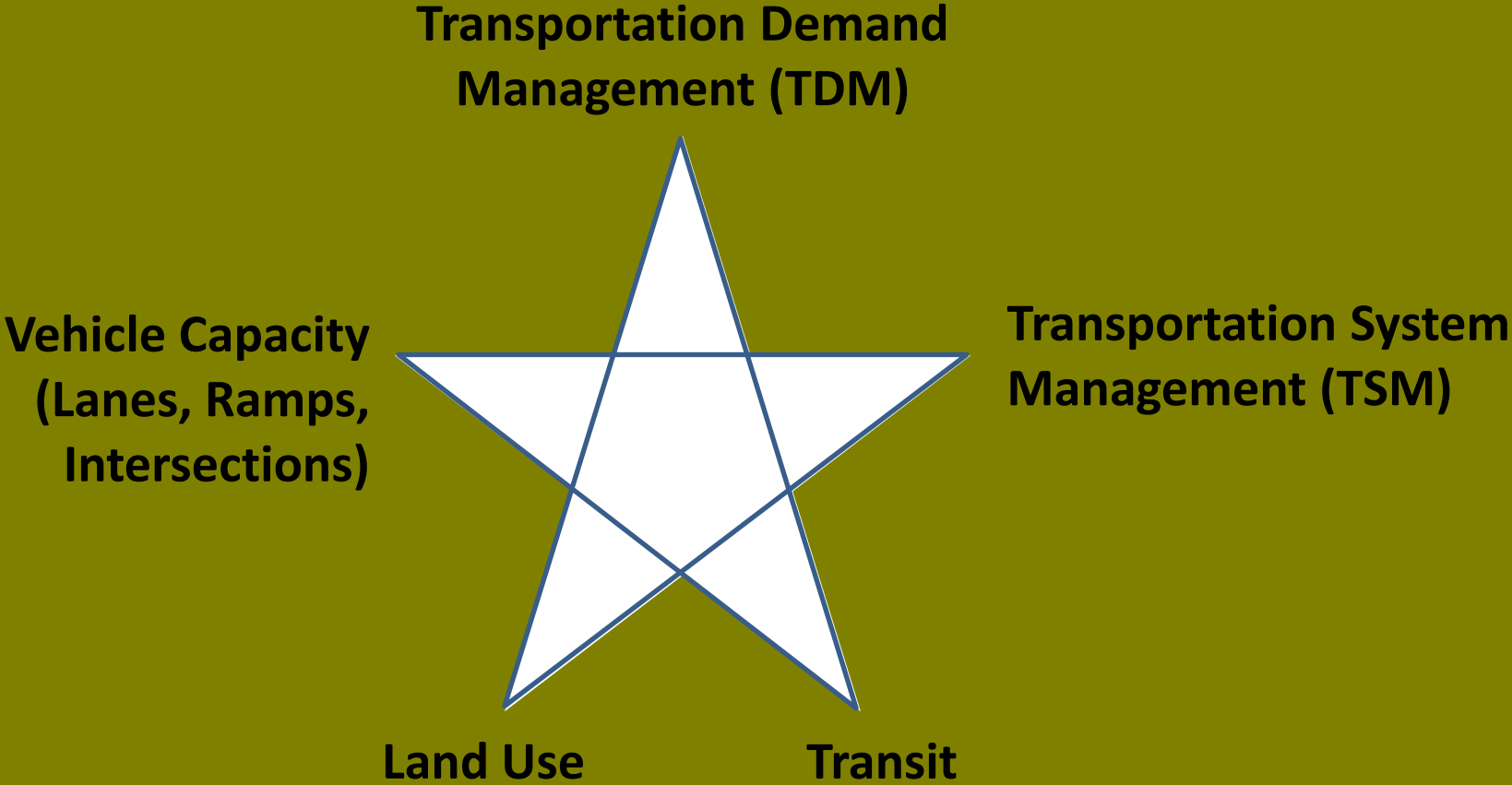
Full life cycle analysis

Version 1.0 Available in 3 Weeks

# Who Is Developing STARS?

- ★ CH2M HILL
- ★ Parsons Brinckerhoff
- ★ Confluence Planning
- ★ ECONorthwest
- ★ David Evans & Associates
- ★ Brightworks
- ★ TriMet
- ★ Evergreen State College
- ★ Portland Bureau of Transportation

# Integrates Strategies to Achieve Goals



# Potential Benefits

Reduced parking in new development

“Boomerang Dollars” – money leaving the local economy is retained by reducing petroleum spending

Increase healthy transportation: walking, cycling, transit by employees & residents

Help meet economic, climate, livability and equity goals

# Principles

Goals Drive Strategies

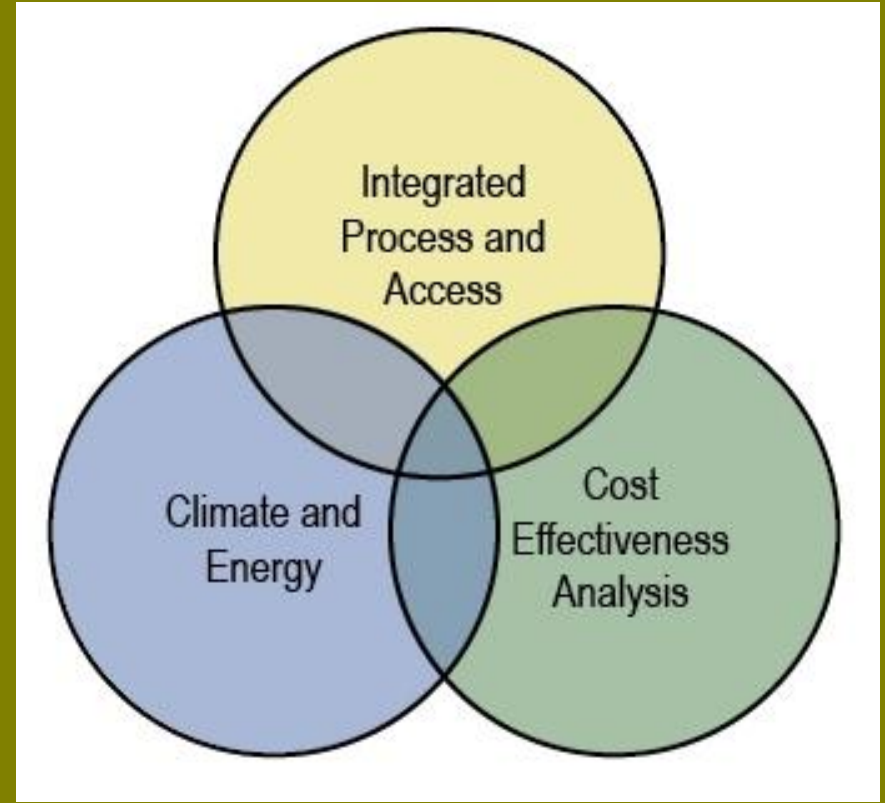
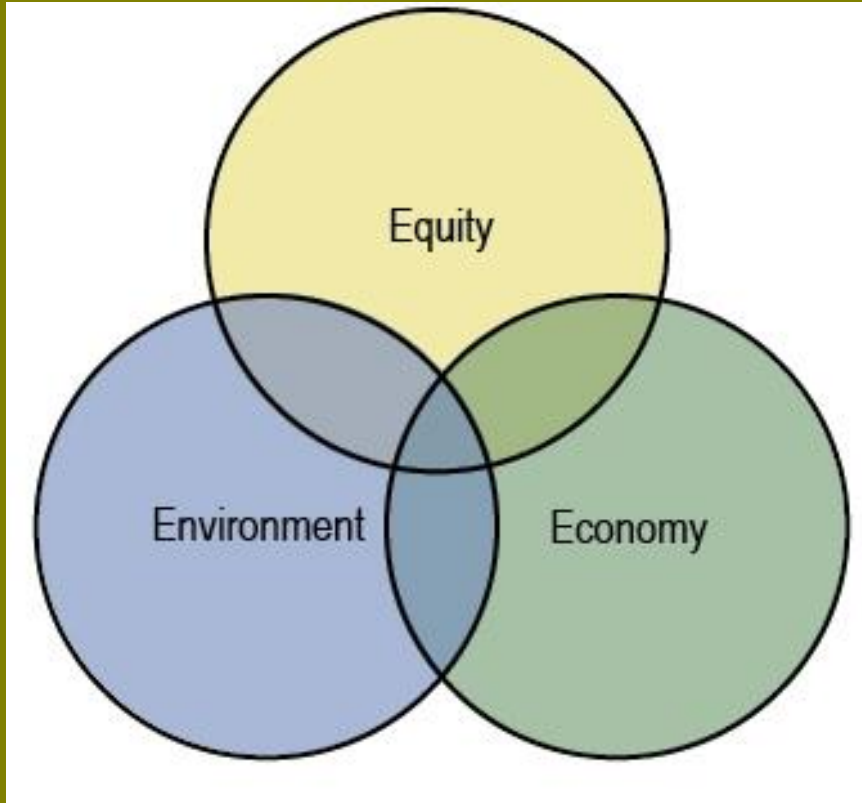
Analyze at Plan, Project and  
Program Levels

Develop Tools to Project GHGE





# STARS: Grounded in Sustainability



# STARS Goals

Transform transportation industry practice in order to:

- Improve access for all people
- Cut oil dependence and climate pollution
- Maximize cost effectiveness
- Move toward true sustainability

# How Does STARS Work?

Create a Multi-Disciplinary Team  
Sustainability Workshop  
Goals: Access, Climate + Energy, \$  
Evaluate Strategies  
Select Alternatives  
Implement  
Monitor Performance

# STARS Users

## **Public Agency and Consultant Planners and Project Managers**

- To objectively improve project or plan performance

## **Elected Officials**

- To show the public their commitment to high benefit/cost and to sustainable transportation & land use

## **Employers**

- To recruit and retain employees attracted to companies committed to sustainable practices

# Sample Project Scorecard

STARS Project Version 0.6				
Project Name: _____				
Contact: _____				
Yes	?	No		
			<b>Project Totals</b>	
			One Star __ points, Two Star __ points, Three Star __ points, Four Star __ points	
Yes	?	No		
			<b>Integrative Process</b>	<b>Project Phase(s)</b>
			IP 1	Comprehensive Project Goals & Objectives (purpose & need) Planning
			IP 2	Multi-Discipline Project Team All
			IP 3	Public Stakeholder Engagement All
Yes	?	No		
			<b>Access</b>	
Required			A 1	Establish Mode Split Goal Purpose & Need
			A 2	Evaluate Expanded TDM Strategies Alternatives Analysis
			A 3	Evaluate Expanded TSM Strategies " "
			A 4	Evaluate Expanded Transportation Options " "
			A 5	Evaluate Expanded Land Use Strategies " "
			A 6	Implement Expanded Options, TDM, TSM and Land Use Strategies Design, Implementation
			A 7	Access Performance Operation
Yes	?	No		
			<b>Climate + Energy</b>	
Required			CE 1	Climate & Energy Goal Purpose & Need
			CE 2	Vehicle Mile Reduction Goal & Evaluation Alternatives Analysis
			CE 3	Materials & Construction Goal & Evaluation " "
			CE 4	Improved Flow Goal & Evaluation " "