

Environmental Stewardship Initiative City Council Update



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May 7, 2018

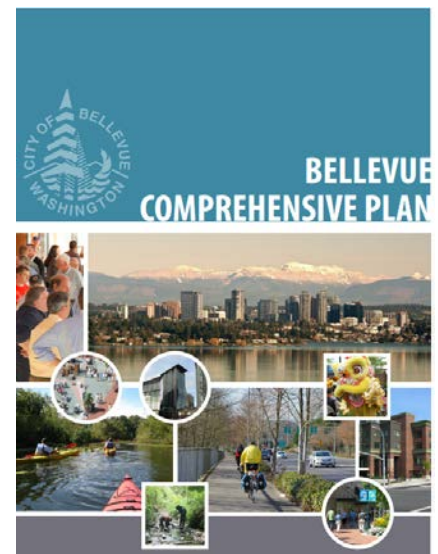
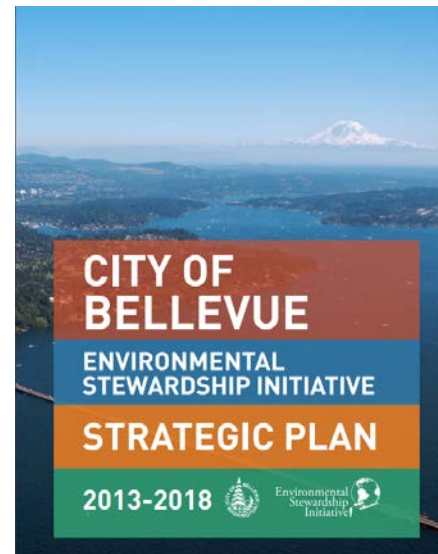
Presentation Outline

1. ESI Strategic Plan
Implementation Progress
2. Tree Canopy Update
3. Greenhouse Gas Emissions
Update
4. STAR Communities Overview
5. Discussion



ESI Policy Drivers

- Council Vision – regional leadership and high quality built and natural environment
- Comprehensive Plan Environmental Element
- ESI Strategic Plan
- Mayor's Climate Protection Agreement
- King-County Cities Climate Collaboration Joint Commitments



ESI Strategic Plan Progress

Greenhouse Gas Emissions

Mobility & Land Use

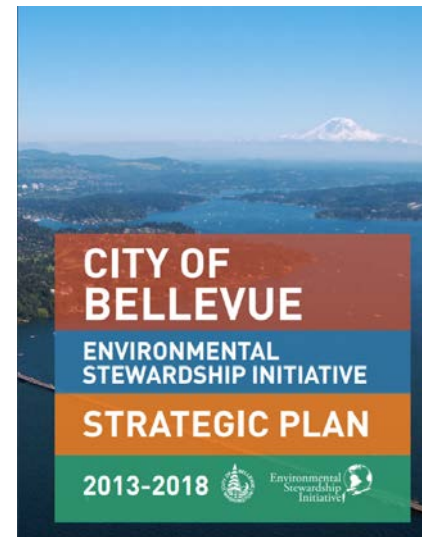
Energy & Water

Materials Management & Waste

Ecosystems & Open Spaces

Plan includes:

- 17 Sustainability Indicators
- 57 Actions



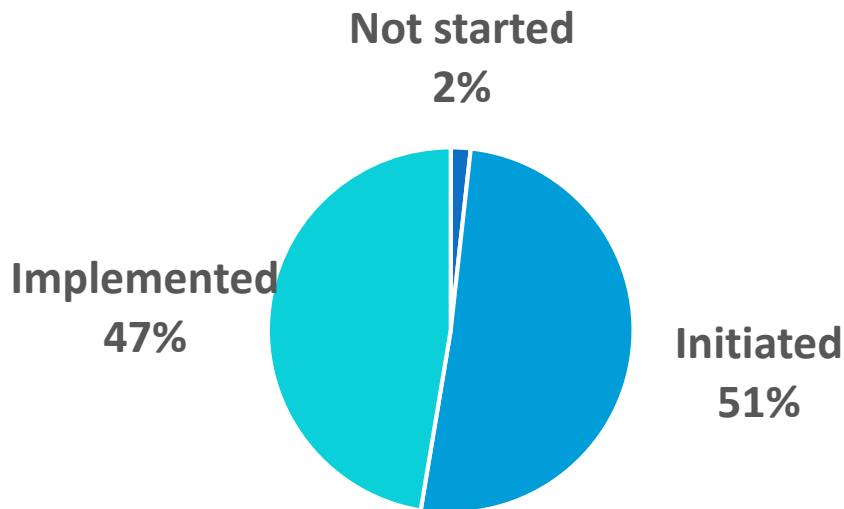
KEY PERFORMANCE INDICATORS
A Snapshot of Current Conditions

KEY PERFORMANCE INDICATOR	TARGET	2011	% REDUCTION NEEDED	TRENDS SINCE 2006
GREENHOUSE GAS EMISSIONS				
Greenhouse gas emissions (metric tons CO ₂ equivalent)	11,246	14,511	22%	Improving
Greenhouse gas emissions (metric tons CO ₂ equivalent)	1,136,353	1,571,500	21%	Steadily stable
MOBILITY & LAND USE				
Household emissions (metric tons CO ₂ equivalent)	2,498	3,115	20%	Improving
Emissions from vehicle miles traveled (metric tons CO ₂ equivalent)	682,835	772,400	11%	Steadily stable
Commuter trip reduction - Drive Alone Ratio (%) at large employers	50.0%	61.0%	11%	Mixed
ENERGY & WATER				
Emissions from both and thermal (metric tons CO ₂ equivalent)	3,488	9,965	65%	Improving
Emissions from both and thermal (metric tons CO ₂ equivalent)	635,726	871,400	26%	Mixed
Gallons of water used	Decrease	105,498		Mixed
Gallons of water saved per day	955,000	565,453	40%	Improving
Renewable energy installed in buildings (kW)	Increase	123		Improving
MATERIALS MANAGEMENT & WASTE				
Emissions from landfilled solid waste (metric tons CO ₂ equivalent)	117	96	22%	Steadily stable
Emissions from landfilled solid waste (metric tons CO ₂ equivalent)	7,318	8,200	10%	Improving
% of total waste recycled and composted	50.0%	42.3%	16%	Improving
ECOSYSTEMS & OPEN SPACES				
Citywide tree cover (%)	40%	30%	25%	Declining
Stream habitat	Improve			Mixed
Acres of open space and parks	Increase	7,351		Improving
Public urban forests in class 1 and 2 condition (Class 1 is healthiest)	Transition 10 acres per year from Class 2 and 3 to Class 1 and 2 condition	72% of forest in Class 1 or 2 condition		Improving

*Percentage increase from 2011 actuals needed to reach target
% Reductions are based on Mayor Climate Reduction Agreement and other City adopted targets.

ESI Strategic Plan Implementation Progress

**98% of Actions
Implemented or
Initiated**



Key Next Steps:

- ESI Progress Report
- Tree Canopy Assessment
- Green Fleet Strategy
- Advanced Green Building Pilot Program
- Zero waste guidelines for City events

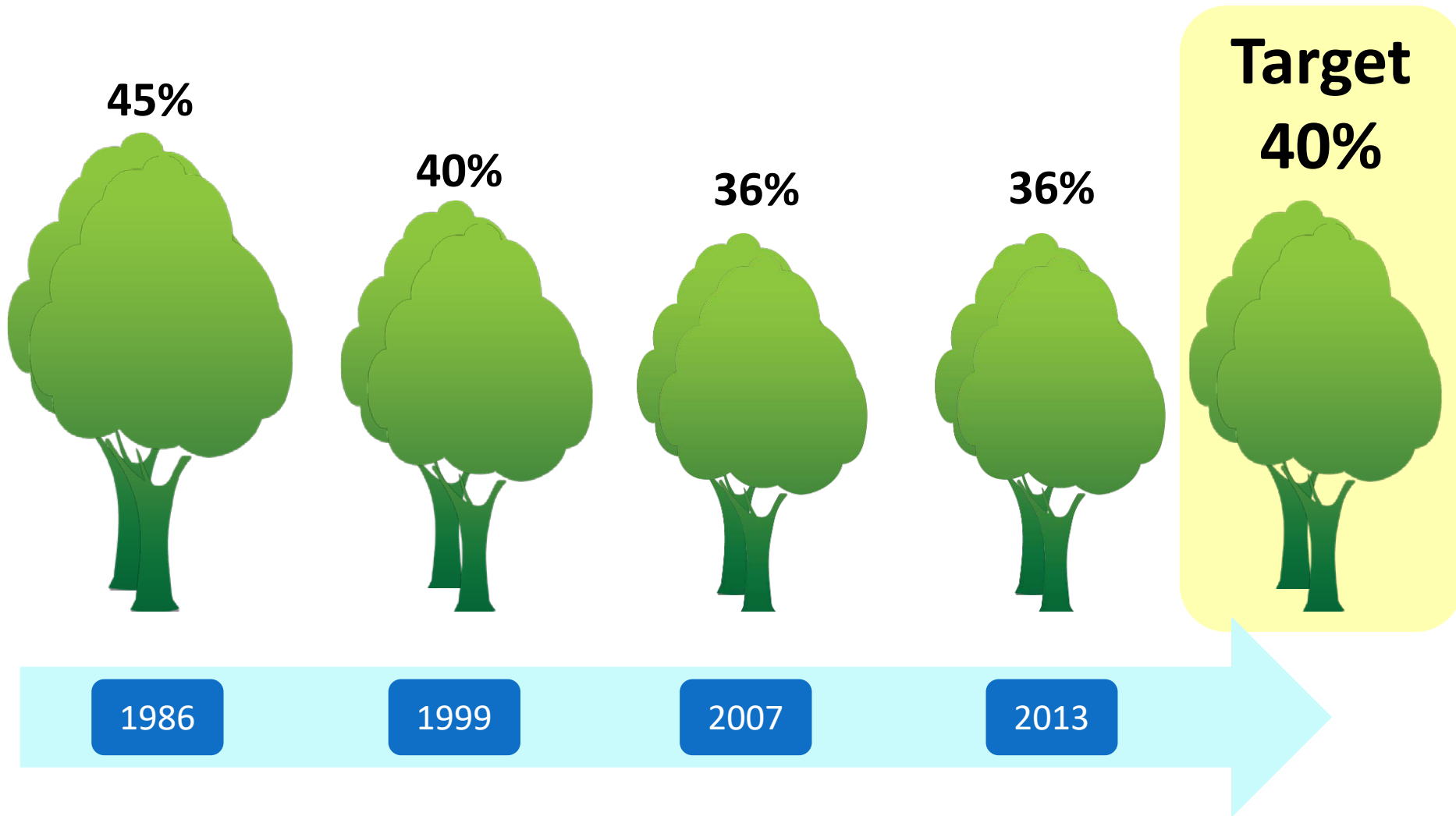
ESI Strategic Plan

Spotlight actions for presentation

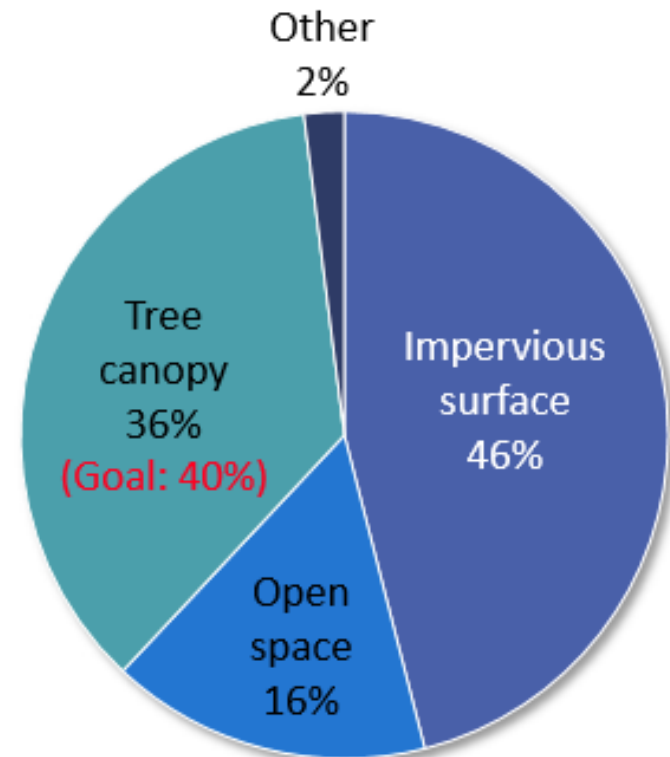
- Report and monitor community and municipal GHG emissions
- Increase tree canopy citywide
 - Research best practices
 - Gap analysis
 - Assess tree loss on private land
 - Develop a right-of-way strategy for trees
- Measure Progress: STAR Communities



Tree Canopy Trends



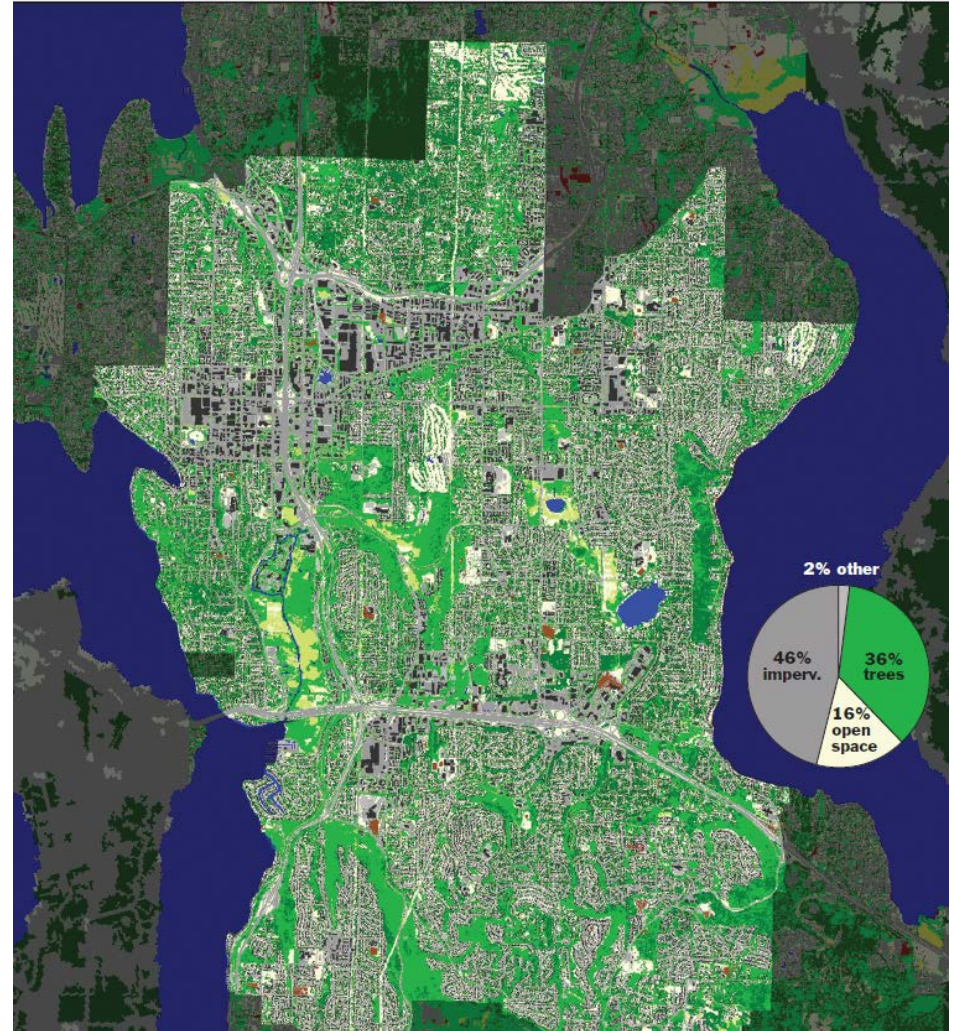
Impact of Development



2007 Tree Canopy data

Tree Canopy Assessment

- Part of regional assessment with King Conservation District
- Consistent methods and data throughout region - LIDAR data and aerial imagery
- Regional urban forestry working group



Tree Canopy Update

- Initiated Tree Canopy Interdepartmental Working Group
- Mitigation pre-planning for major infrastructure projects
- Training for Mediation volunteers
- Value of trees education and outreach campaign

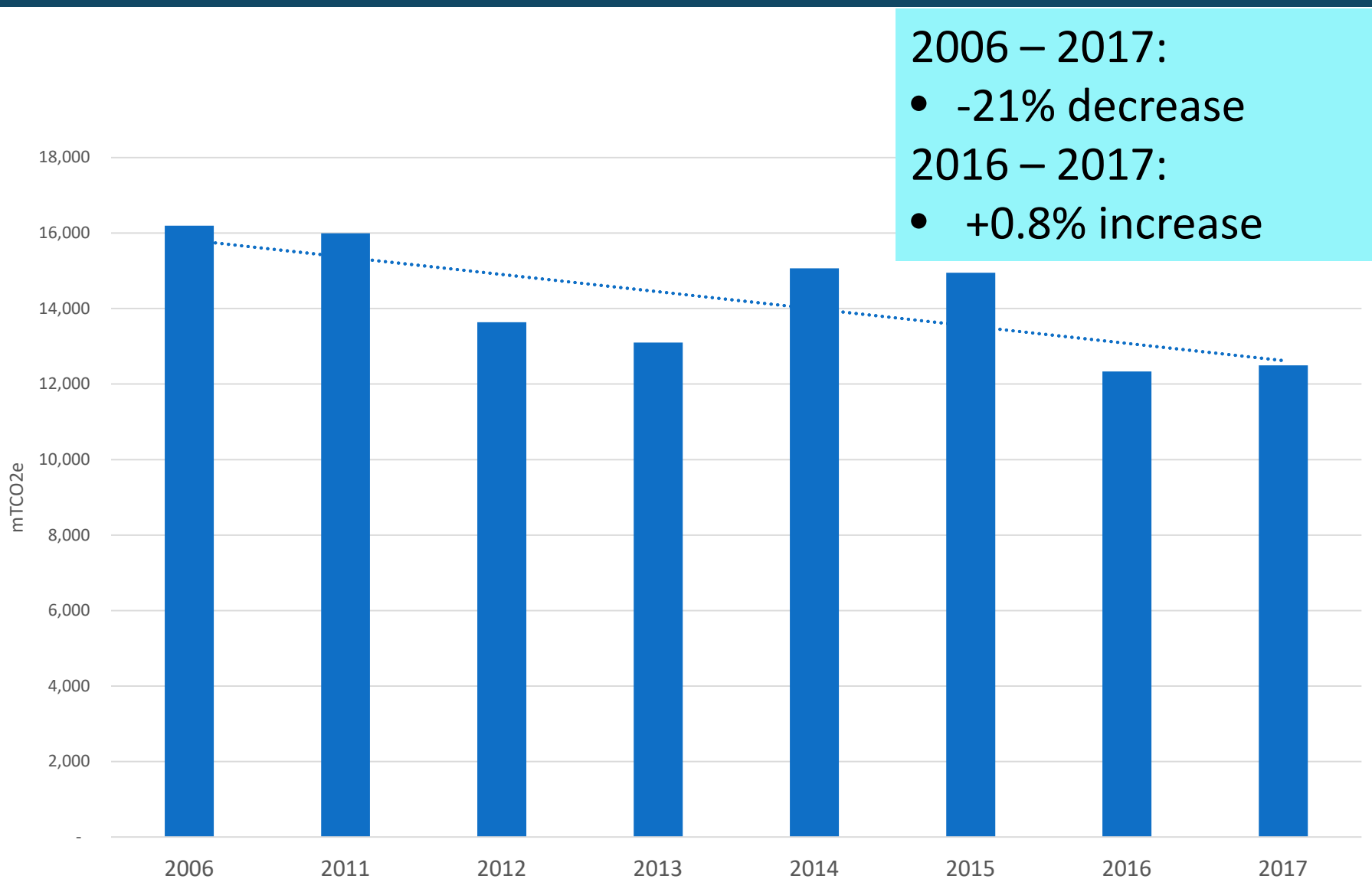


Tree Canopy – Next Steps

- Understand overall trends
- Review best practices
- Strategies for increasing tree canopy



Municipal Operations Greenhouse Gas Emissions



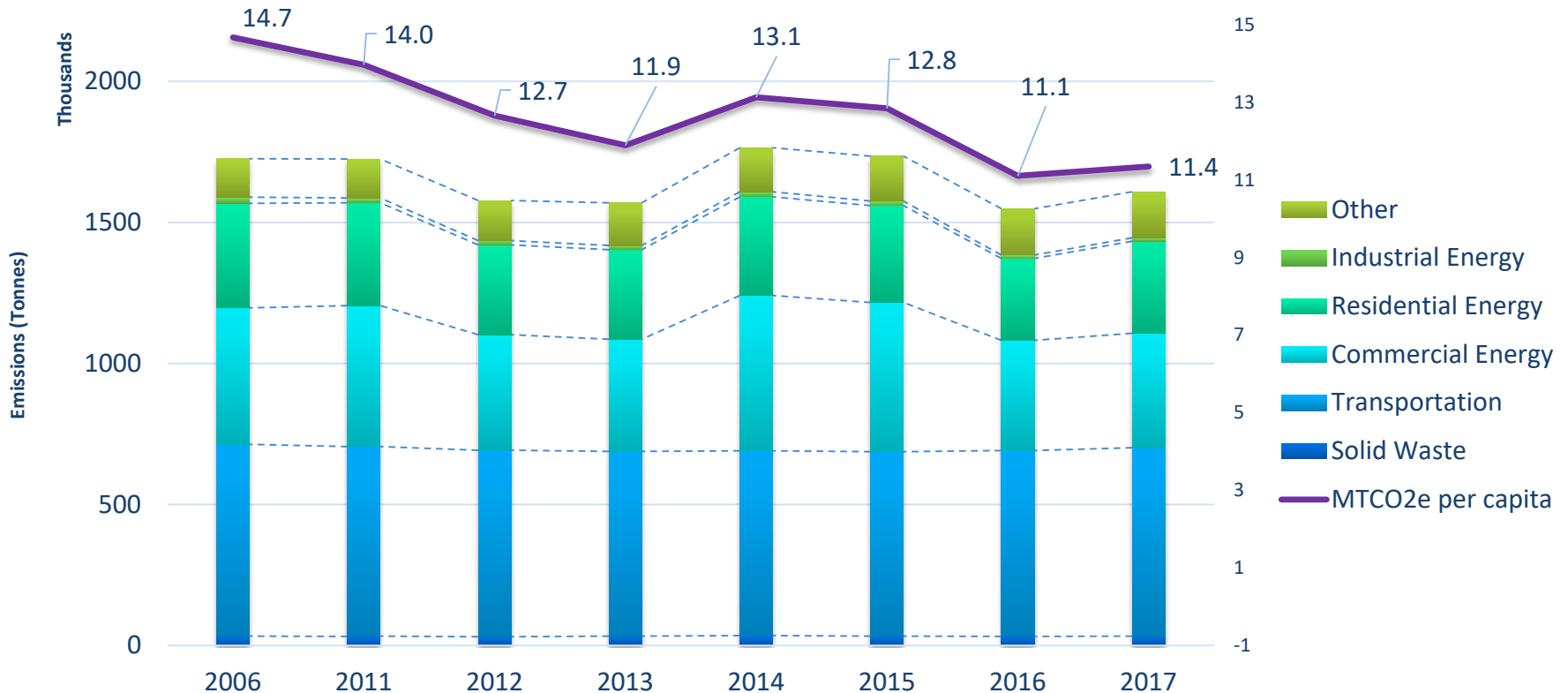
Community Greenhouse Gas Emissions

2006 – 2017 Trends:

- -7% total emissions
- -23% per capita
- 20% Population growth

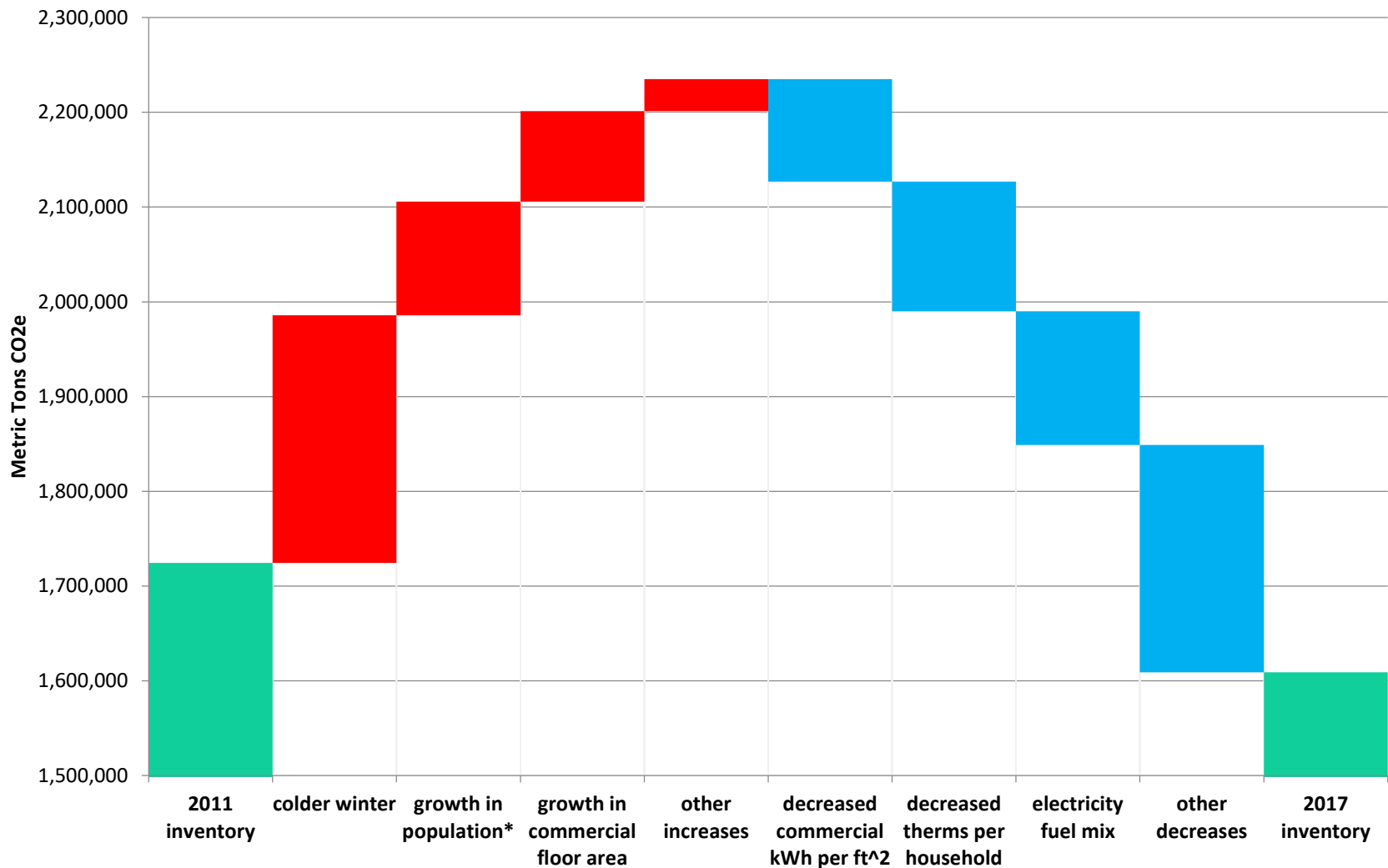
2016 – 2017 Trends:

- +3.9% total emissions
- +2.2% per capita



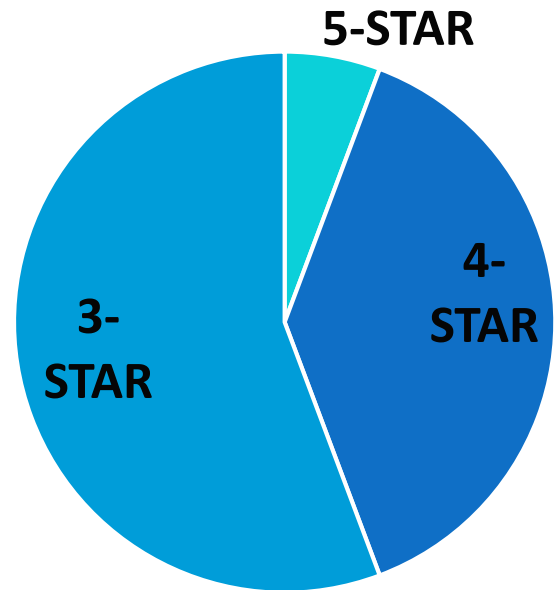
Analysis of Drivers of Change in GHG Inventory

U.S. DOE Cities Leading Through Energy Analysis



STAR Communities Overview

- ~70 certified communities
- Largest: Houston, TX 2.1 mil
- Smallest: Devens, MA 1,800
- NW communities
 - Seattle (5-STAR)
 - King County (4)
 - Tacoma (4)
 - Boise, ID (4)
 - Portland, OR (4)
 - Beaverton, OR (3)



Bellevue's STAR Rating



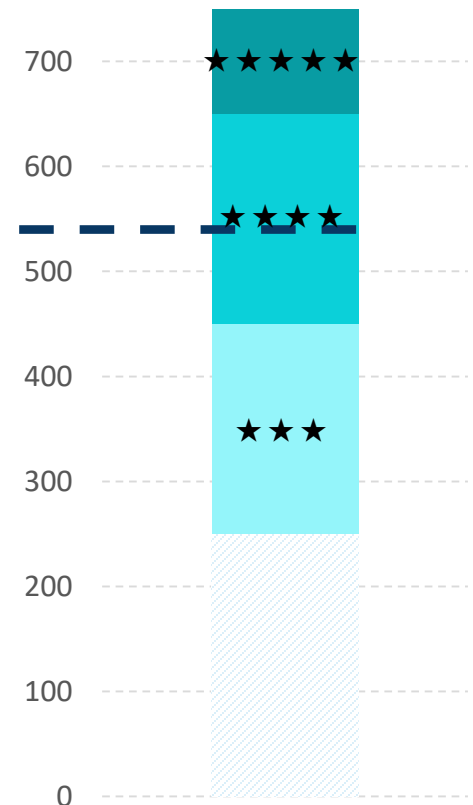
Version 2.0 Certification Levels

5-STAR Community
Recognized as top tier achiever
in national sustainability

4-STAR Community
Recognized for national
excellence

3-STAR Community
Recognized for sustainability
leadership

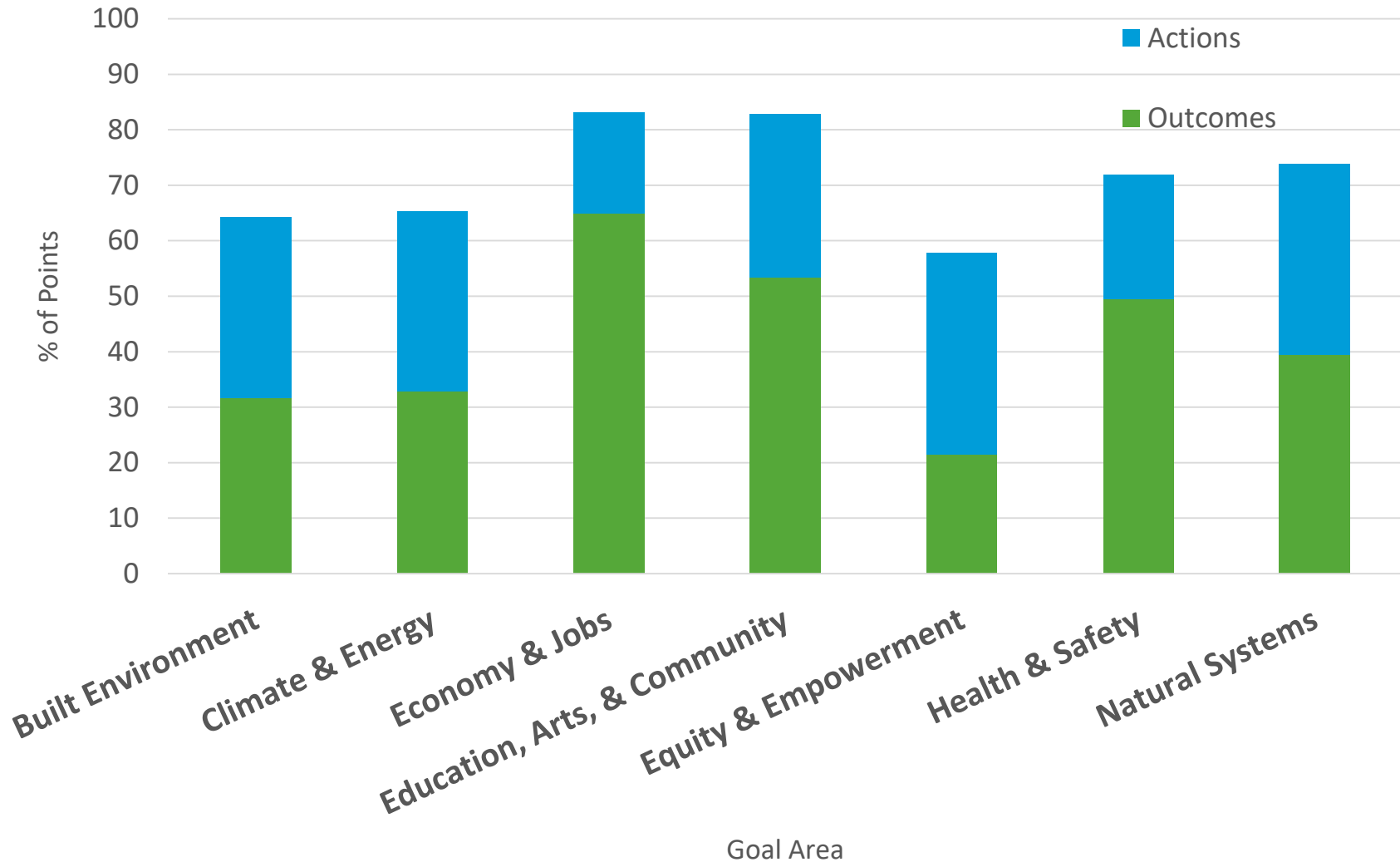
548 pts
★★★★



STAR Goal Areas and Objectives

Built Environment	Climate & Energy	Economy & Jobs	Education, Arts, & Community	Equity & Empowerment	Health & Safety	Natural Systems
BE-1: Ambient Noise & Light	CE-1: Climate Adaptation	EJ-1: Business Retention & Development	EAC-1: Arts & Culture	EE-1: Civic Engagement	HS-1: Active Living	NS-1: Green Infrastructure
BE-2: Community Water Systems	CE-2: Greenhouse Gas Mitigation	EJ-2: Green Market Development	EAC-2: Community Cohesion	EE-2: Civil & Human Rights	HS-2: Community Health	NS-2: Biodiversity & Invasive Species
BE-3: Compact & Complete Communities	CE-3: Greening the Energy Supply	EJ-3: Local Economy	EAC-3: Educational Opportunity & Attainment	EE-3: Environmental Justice	HS-3: Emergency Management & Response	NS-3: Natural Resource Protection
BE-4: Housing Affordability	CE-4: Energy Efficiency	EJ-4: Quality Jobs & Living Wages	EAC-4: Historic Preservation	EE-4: Equitable Services & Access	HS-4: Food Access & Nutrition	NS-4: Outdoor Air Quality
BE-5: Infill & Redevelopment	CE-5: Water Efficiency	EJ-5: Targeted Industry Development	EAC-5: Social & Cultural Diversity	EE-5: Human Services	HS-5: Health Systems	NS-5: Water in the Environment
BE-6: Public Parkland	CE-6: Local Government GHG & Resource Footprint	EJ-6: Workforce Readiness	EAC-6: Aging in the Community	EE-6: Poverty Prevention & Alleviation	HS-6: Hazard Mitigation	NS-6: Working Lands
BE-7: Transportation Choices	CE-7: Waste Minimization				HS-7: Safe Communities	

STAR Scores by Goal Area



ESI Next Steps

- Tree Canopy Assessment final results and analysis
- ESI Progress Report
- Update ESI Strategic Plan
- Advanced Green building pilot program



Discussion

