

Achieving Sustainability:

Setting Goals and Measuring Progress



Arizona Chapter, American Planning Association
2013 Annual Conference
September 27, 2013

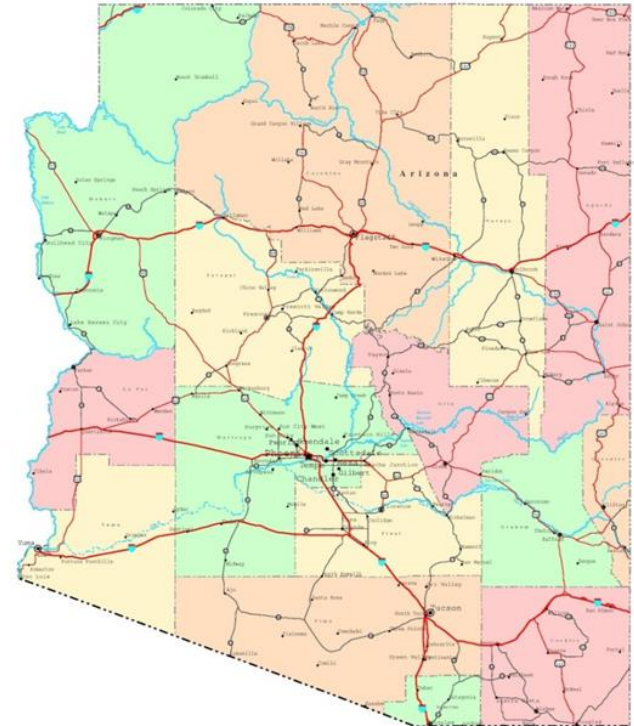
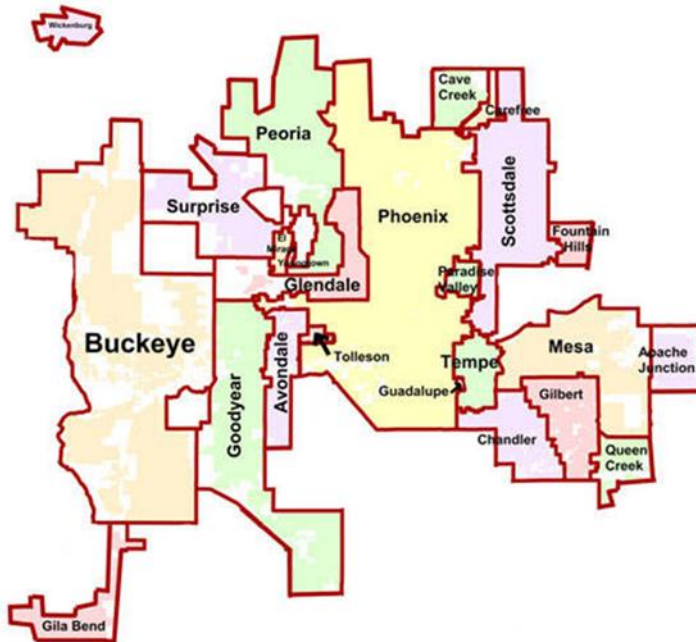
Sustainable Cities Network (SCN)

**Connecting Cities, Sharing Practices,
Improving Our Communities**

SCN was created to:

- ☐ Network local, municipal sustainability professionals
- ☐ Identify questions, opportunities and solutions
- ☐ Foster community and regional sustainability progress
- ☐ Enable ASU to lend expertise and to play role in local solutions
- ☐ Identify sustainability practices unique to our desert environment

Serving Communities Statewide



Arizona

★ State Capitals
● County Seat
● Cities 100,000-499,999
● Cities 50,000-99,999
● Cities 10,000-49,999
● Cities 5,000-9,999

--- International Boundaries
--- State Boundaries
--- County Boundaries
--- Interstate Highways
--- U.S. Highways
--- State Highways
--- Major Rivers
--- Intermediate Rivers
--- Lakes

0 25 Miles 50 Miles 100 Miles



STAR COMMUNITIES

SUSTAINABILITY
TOOLS FOR
ASSESSING &
RATING COMMUNITIES



SET GOALS. MEASURE PROGRESS.

Built **by and for** Local Governments

- In 2008, ICLEI-Local Governments for Sustainability, the U.S. Green Building Council, National League of Cities, and the Center for American Progress announced formal partnership
- Established a diverse, consensus-based stakeholder engagement process
- More than 200 volunteers representing cities and counties, state and federal agencies, non-profit organizations, national associations, universities, utilities, and private corporations



The Need for STAR

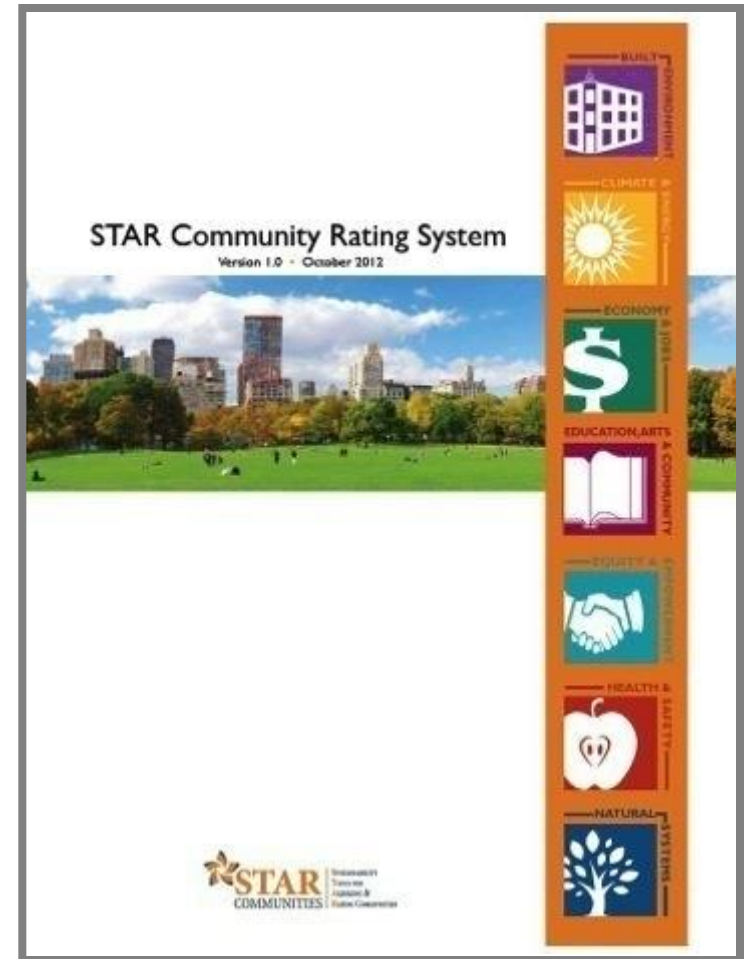
- New and dynamic field
- Large number of indicators
- Data collection
- Limited staffing and financial resources
- Agency silos



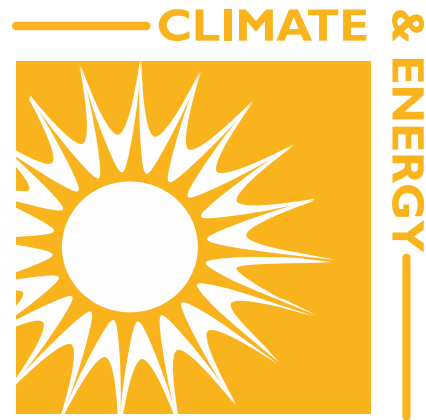
The STAR Community Rating System

The **STAR Community Rating System** is an active roadmap and measuring system for practical sustainability results.

Released October 1, 2012, the Rating System is the first framework for evaluating the sustainability of U.S. communities.



Rating System's Goal Areas



The STAR Community Rating System

Goal Areas & Objectives are mapped and rated in the online system, helping local leaders set goals and measure progress across areas.

Built Environment	Climate & Energy	Economy & Jobs	Education, Arts & Community	Equity & Empowerment	Health & Safety	Natural Systems
Ambient Noise & Light	Climate Adaptation	Business Retention & Development	Arts & Culture	Civic Engagement	Active Living	Green Infrastructure
Community Water Systems	Greenhouse Gas Mitigation	Green Market Development	Community Cohesion	Civil & Human Rights	Community Health & Health System	Invasive Species
Compact & Complete Communities	Greening the Energy Supply	Local Economy	Educational Opportunity & Attainment	Environmental Justice	Emergency Prevention & Response	Natural Resource Protection
Housing Affordability	Industrial Sector Resource Efficiency	Quality Jobs & Living Wages	Historic Preservation	Equitable Services & Access	Food Access & Nutrition	Outdoor Air Quality
Infill & Redevelopment	Resource Efficient Buildings	Targeted Industry Development	Social & Cultural Diversity	Human Services	Indoor Air Quality	Water in the Environment
Public Spaces	Resource Efficient Public Infrastructure	Workforce Readiness		Poverty Prevention & Alleviation	Natural & Human Hazards	Working Lands
Transportation Choices	Waste Minimization				Safe Communities	

Parts of the Rating System

GOALS

Sustainability themes with comprehensive community-level aspirations

OBJECTIVES

A clear, desired outcome intended to move the community toward the goal

OUTCOME MEASURES

Community-scale results: the measureable aim or purpose of each Objective

ACTION MEASURES

The steps you are taking to move the needle towards sustainability

Community Level Outcomes



Outcomes are community-scale results: the measureable aim or purpose of each Objective.

Outcomes are measured using:

- Trend Lines capture progress over time
- Thresholds establish a specific limit above or below which the community would receive full credit

Local Actions

Local Actions are the steps you take to achieve the Outcomes.

Foundational Actions:

- Education and Outreach
- Plan Development
- Policy and Code Adjustment
- Partnerships and Collaboration
- Practice Improvements
- Inventory, Assessment or Survey

Implementation-based Actions:

- Programs and Services
- Facilities and Infrastructure Improvement
- Enforcement and Incentives



Example

Goal

Climate & Energy

Objective

Greenhouse Gas Mitigation

Outcome

Demonstrate incremental progress towards achieving an 80% reduction in community GHGs by 2050

Actions

Adopt a Climate Action Plan, create an education plan for residents and businesses, adopt energy efficiency regulations, create incentives for renewables, upgrade facilities

Certifications & Recognitions

Certified 5-STAR Community (600+ points)

- *Recognized as top tier achiever in national sustainability*

Certified 4-STAR Community (400-599 points)

- *Recognized for national excellence*

Certified 3-STAR Community (200-399 points)

- *Recognized for sustainability leadership*

Reporting STAR Community (50-199 points)

- *Registered intent to report & exhibited progress in all 7 goal areas*

Participating STAR Community

- *Registered intent to use the Rating System*



Pathways to Certification

An introductory package that helps you decide whether certification is right for your community

**Participating
STAR
Community**

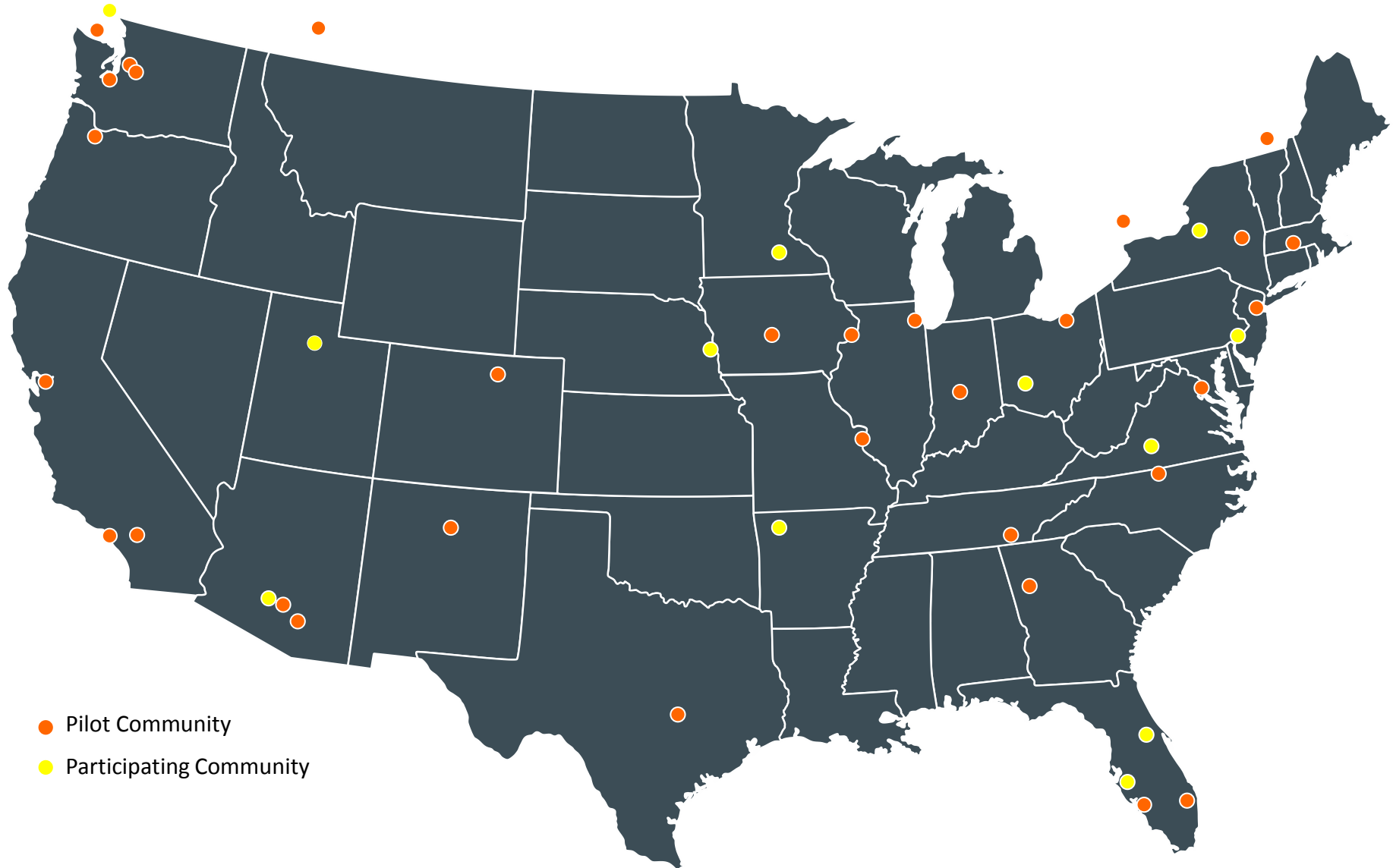
Subscription packages for communities that are ready to gather data and pursue certification

**Reporting
STAR
Community**

**Leadership
STAR
Community**

Subscription Features	Participating STAR Community	Reporting STAR Community	Leadership STAR Community
Technical Guide	X	X	X
Self Assessment Checklist	X	X	X
Intro to STAR Training	X	X	X
E-Communications	X	X	X
Access to STAR Network	X	X	X
1-hour call with STAR staff	X	X	N/A
Reporting Tool Access		X	X
STAR Coordinator			X
Two-Day In-Person Kickoff Training			X
Monthly Webinars			X
Media Services			X
Certification		X	X
Intro Pricing	\$500/year	\$1,500/year (additional \$1,500 certification fee)	\$5,000-\$15,000 based on population

Welcome to the STAR Network!



STAR Communities

UNDER 100,000

- Albany, NY
- Blacksburg, VA
- Davenport, IA
- El Cerrito, CA
- Evanston, IL
- Fayetteville, AR
- Madison County, NY
- Northampton, MA
- Rockingham County, NC
- Rosemount, MN
- Santa Fe, NM
- Santa Monica, CA
- Victoria, BC
- Woodbridge, NJ

100,001-499,999

- Atlanta, GA
- Chandler, AZ
- Chattanooga, TN
- Cleveland, OH
- Dayton, OH
- Des Moines, IA
- Fort Collins, CO
- Lee County, FL
- Omaha, NE
- Riverside, CA
- Salt Lake City, UT
- Sarasota County, FL
- St. Louis, MO
- Tacoma, WA

500,000-999,999

- Austin, TX
- DeKalb County, GA
- Indianapolis, IN
- Portland, OR
- Seattle, WA
- Tucson, AZ
- Vancouver, BC
- Washington, DC

1,000,000+

- Broward County, FL
- Calgary, AB
- King County, WA
- Montreal, QC
- Orange County, FL
- Philadelphia, PA
- Phoenix, AZ
- Toronto, ON

*For More Information on the STAR
Community Rating System*

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Incorporating Sustainability Into Plan Tucson

Leslie Ethen

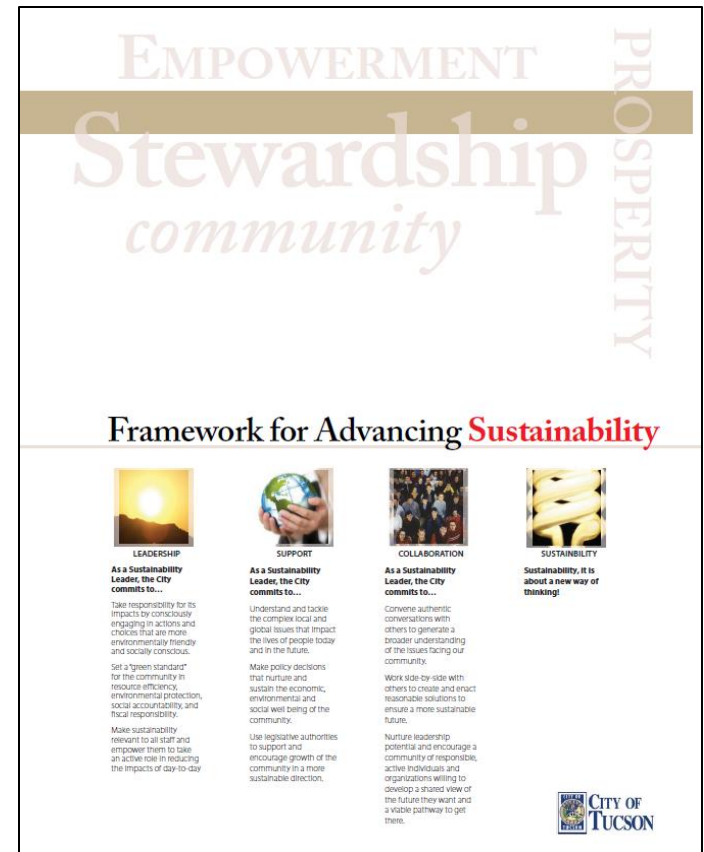
City of Tucson Office of Conservation and Sustainable
Development



City of Tucson Office of
**CONSERVATION AND
SUSTAINABLE DEVELOPMENT**

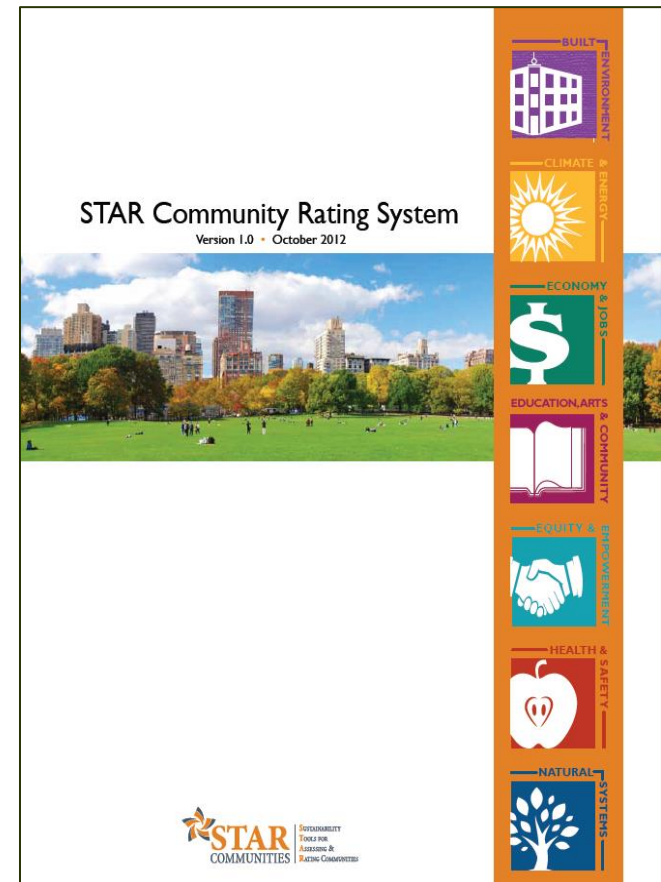
Starting Point...

- * 2008 Framework for Advancing Sustainability
 - * All environmental
 - * Based on existing policy
- * 2012 mandate to update Framework
 - * Grant competitiveness
- * Sustainability Framework = Local values + STAR
 - * In our own words
 - * Too many objectives
 - * Needed to add elements
 - * It IS a pilot...



Guiding Cities Toward Sustainability

- * Initiated in 2007
 - * National League of Cities
 - * US Green Building Council
 - * ICLEI
 - * Center for American Progress
- * 200+ volunteers
 - * Steering committee
 - * 8 technical committees
 - * X-committee
- * Beta Tested 2010-2012
 - * 10 communities
- * Pilot began December 2012
 - * ~35 communities



How to Make Cities Sustainable?

Table of STAR Goals and Objectives

Built Environment	Climate & Energy	Education, Arts & Community	Economy & Jobs	Equity & Empowerment	Health & Safety	Natural Systems
Ambient Noise & Light	Climate Adaptation	Arts & Culture	Business Retention & Development	Civic Engagement	Active Living	Green Infrastructure
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Public Spaces	Resource Efficient Public Infrastructure		Workforce Readiness	Poverty Prevention & Alleviation	Natural & Human Hazards	Working Lands
Transportation Choices	Waste Minimization				Safe Communities	

- * 7 Goal Areas + Innovation
 - * 44 Objectives
- * 3 Elements:
 - * Objective Statements
 - * Community Outcomes
 - * Local Actions
- * Sustainability Framework = Local values + STAR
 - * Our words
 - * Too many objectives
 - * Needed new elements
 - * It IS a pilot...
 - * Nationally competitive

Timing is Everything...

- * Why have 2 separate plans?
- * Isn't community sustainability what the General Plan is about?
- * Consistent with new open government initiative, restructuring
- * Amazing amount of consistency
- * Reality check





EJ- I: Business Retention & Development

(20 available points)

Purpose

Foster economic prosperity and stability by retaining and expanding businesses with support from the business community

Evaluation Measures

Community Level Outcomes

Outcome 1: Businesses

Option A: Demonstrate an increased number of business establishments in the county over time

--OR--

Option B: Demonstrate an increased number of business establishments in the municipality in the past 3 years

Outcome 2: Annual Sales

Demonstrate an increase in annual sales from businesses located in the jurisdiction in the past 3 years

Outcome 3: Employment

Part 1: Demonstrate an increase in the percentage of residents employed over time

--AND--

Part 2: Demonstrate a decrease in the unemployment rate of residents over time

Local Actions

1. Negotiate project labor agreements, community benefit agreements, and local hiring agreements
2. Formally engage with the business community on a regular basis to improve conditions and address specific needs
3. Appoint an advisory body to provide recommendations and represent the business community in local decision-making

How We Connected the Dots...

STAR:

- * Purpose Statements →

- * Outcomes →

- * Actions →

Plan Tucson:

- * Long-Term Community Sustainability Outcomes

- * Progress Metrics

- * Used as a policy screen, will be used as ideas for action plans

THE BUILT ENVIRONMENT

Plan Tucson Goals	Plan Tucson Policies	STAR Sustainability Metrics	Long-term Community Sustainability Outcomes
HOUSING			
The City strives for a mix of well-maintained, energy-efficient housing options with multi-modal access to basic goods & services, recognizing the important role of homeownership to neighborhood stability.	H1, H4, H7, H10		
PUBLIC SAFETY			
The City strives for a safe community and secure neighborhoods.	PS1, PS6, PS1, PR7		
	PS2, PS9		
PARKS & RECREATION			
The City strives for a community that is healthy physically, mentally, economically, and environmentally.	PR1, PR4, PR5, PR1, BC4, TQ1		
ARTS & CULTURE			
The City strives for a community whose economic stability and sense of place reflects its commitment to arts and culture and its care for the natural environment.	AC1, AC2, AC3, AC4, BC1, BC2, TQ1		
PUBLIC HEALTH			
The City strives for a community that is healthy physically, mentally, economically, and environmentally.	PH1, PH2		
Plan Tucson Goals	Plan Tucson Policies	STAR Sustainability Metrics	Long-term Community Sustainability Outcomes
HISTORIC PRESERVATION			
The City strives for community that respects and integrates historic resources into the built environment and uses them for the advancement of multiple community goals.	HP1, HP2, HP3, HP4, HP5, HP6, HP7, HP8, H4, H5, PR8, E7, LT1, TQ4, P17	Number of historic districts; annual number of eligible structures and sites designated, rehabilitated, or converted through adaptive reuse; annual number of historic structures retrofitted or with energy efficiency or clean energy technologies	Historic buildings, structures, sites, neighborhood districts and cultural landscapes are preserved and reused; enabling retention of local, regional, and national history and heritage, reinforcement of community character, and resource conservation.
PUBLIC INFRASTRUCTURE & FACILITIES, AND COST OF DEVELOPMENT			
The City strives for well-maintained public facilities and infrastructure that support coordinated cost-effective service delivery for current and future residents.	P11, P15, P16, P17EQ3, EQ7, WR10, RR5, RR6, PR3, E3, AC4, RR3, PH2, PH3, AG3	Access of residents of diverse income levels and race/ethnicity to community facilities, services, and infrastructure; clean-up of contaminated sites	Public services, benefits, and infrastructure developments are provided fairly across the community, all residents are provided protection from environmental and health hazards, and past disinvestment and disproportionate exposures to hazards are redressed.
The City strives for strategic public and private investments for long-term economic, social, and environmental sustainability.			
REDEVELOPMENT & REVITALIZATION			
The City strives for an urban form that conserves natural resources, improves and builds on existing public infrastructure and facilities, and provides an interconnected multi-modal transportation system to enhance the mobility of people and goods.	RR1, RR2, RR3, RR4, RR5, RR6, P12, LT19, BC8, RG4, WR10	Percentage of new development in locally-designated infill and redevelopment areas; percentage of new housing units that utilized existing water and sewer mains and did not require extending or widening public roadways	New growth is focused in infill and redevelopment areas that do not require the extension of water, sewer, and road infrastructure or facilitate sprawl; emphasizing land use patterns that improve community health and safety, increase equity, enhance environmental quality, and provide economic benefits.
LAND USE, TRANSPORTATION, & URBAN DESIGN			
The City strives for an urban form that conserves natural resources, improves and builds on existing public infrastructure and facilities, and provides an interconnected multi-modal transportation system to enhance the mobility of people and goods.	LT1, LT3, LT4, LT5, LT6, LT7, LT8, LT9, LT10, LT11, LT18, LT19, LT20, LT21, LT23, LT24, LT25, LT26, LT27, LT28, E6, EQ4, EQ5, PH1, HP7, BC8	Percentage of housing within ¼-mile or ½-mile walk distance of transit stops; residential housing density in urban core; employment density; diversity of land uses; transit availability; walkability; urban design standards for density (e.g., setbacks); daytime ambient noise levels; amount of light glare and/or light trespass; visibility of stars	Development is concentrated in compact, human-scaled, walkable centers and neighborhoods that: connect to transit, offer diverse uses and services, provide housing options for families of all income levels, and minimize the indirect impacts of the built environment on the integrity of ecological systems, dark skies, water consumption, and public health.
	LT1, LT3, LT4, LT9, LT11, LT12, LT13, LT14, LT15, LT16, LT22, LT25, ED5, PR9, PH1, PH4, PH8, E7, RG3	Mode split; percent of income spent on transportation costs; pedestrian and bicyclist fatalities; vehicle miles traveled	Safe, affordable, diverse, and efficient mobility options are accessible to all residents, with emphasis on walking, bicycling, and mass transit to reduce vehicle miles traveled.
Plan Tucson Goals	Plan Tucson Policies	STAR Sustainability Metrics	Long-term Community Sustainability Outcomes
ENERGY & CLIMATE READINESS			
The City strives for a reduction in the community's carbon footprint and greater energy independence.	EC1, EC5, EQ7, LT9, LT14		
	EC4, LT11, LT13, LT15, LT17		
The City strives for a reputation as a national leader in the development and use of locally renewable energy technologies, water conservation, waste diversion and recovery, and other emerging environmentally-sensitive industries.	EC4, EC7		
The City strives for sound, efficient, ecological policies and practices in government and in the private sector.			
The City strives for a reputation as a national leader in the development and use of locally renewable energy technologies, water conservation, waste diversion and recovery, and other emerging environmentally-sensitive industries.	EC1, WR3		
The City strives for sound, efficient, ecological policies and practices in government and in the private sector.			
Plan Tucson Goals	Plan Tucson Policies	STAR Sustainability Metrics	Long-term Community Sustainability Outcomes
JOB & WORKFORCE DEVELOPMENT			
The City strives for a local job market that provides opportunities for all Tucsonans to meet their basic needs and pursue career advancement, matched with a well-educated, well-qualified workforce that is able to meet the dynamic needs of businesses and employers.	JW1, JW6, JW5, E5		
The City strives for a local job market that provides opportunities for all Tucsonans to meet their basic needs and pursue career advancement, matched with a well-educated, well-qualified workforce that is able to meet the dynamic needs of businesses and employers.	RG5, RG6, JW4, JW, BC4, AC		
The City strives for a sustainable and diversified economy that maximizes Tucson's strategic location and balances traditional import and export of resources with locally supplied goods and services to meet local demand.			
The City strives for a sustained increase in household income and wages, and a sustained reduction in the poverty rate, especially for Tucson's children, seniors and disabled residents.	JW1, JW7		
The City strives for a community that is healthy physically, mentally, economically, and environmentally.			

THE NATURAL ENVIRONMENT

Plan Tucson Goals	Plan Tucson Policies	STAR Sustainability Metrics	Long-term Community Sustainability Outcomes
ENERGY & CLIMATE READINESS			
The City strives for a reduction in the community's carbon footprint and greater energy independence.	EC1, EC2, EC4, EC5, EC6, EC7, EQ7, HP1, LT9, LT13, LT14, LT17	Annual amount of greenhouse gas emissions reductions	Community carbon neutrality is reached through reducing, to the extent possible, the amount of greenhouse gases emitted, and addressing the remainder of those emissions through carbon offsets, while promoting economic vitality and protecting human health.
	EC4, LT9, LT11, LT12, LT13, LT14, LT15, LT16, LT17	Annual vehicle miles traveled	Usage of low-carbon and highly-efficient transportation, fleet, and fuel options is maximized and annual vehicle miles traveled is minimized.
<p>The City strives for a reputation as a national leader in the development and use of locally renewable energy technologies, water conservation, waste diversion and recovery, and other emerging environmentally-sensitive industries.</p> <p>The City strives for sound, efficient, ecological policies and practices in government and in the private sector.</p>	EC4, EC5, EC6, EC7, E7	Percentage of local energy supply from renewable energy sources; percent ownership of alternative fuel vehicles by residents	Community-wide energy use is reduced to the extent possible, and remaining energy needs are exceeded with renewable and environmentally-benign energy sources.

THE ECONOMIC ENVIRONMENT

Plan Tucson Goals	Plan Tucson Policies	STAR Sustainability Metrics	Long-term Community Sustainability Outcomes
JOB & WORKFORCE DEVELOPMENT			
The City strives for a local job market that provides opportunities for all Tucsonans to meet their basic needs and pursue career advancement, matched with a well-educated, well-qualified workforce that is able to meet the dynamic needs of businesses and employers.	RG5, RG6, JW4, JW6, BC4, AC9	Number of new businesses, annual sales, and total employment in targeted industry sectors	The advanced training and higher education community catalyzes economic growth through technological research and development; technology transfer and sharing of cost and risk of investments in innovation; development of intellectual capital and entrepreneurial spirit; and preparation of local workers with the skills needed for innovation.
The City strives for a sustained increase in household income and wages, and a sustained reduction in the poverty rate, especially for Tucson's children, seniors and disabled residents.	JW1, JW2, JW7	Median household income; percentage of household incomes that meet or exceed the living wage standard	Every worker earns a living wage, receives affordable benefits, has access to programs that support families, and can gain upward economic mobility through improved productivity in a safe and non-discriminatory workplace environment.
The City strives for a community that is healthy physically, mentally, economically, and environmentally.			

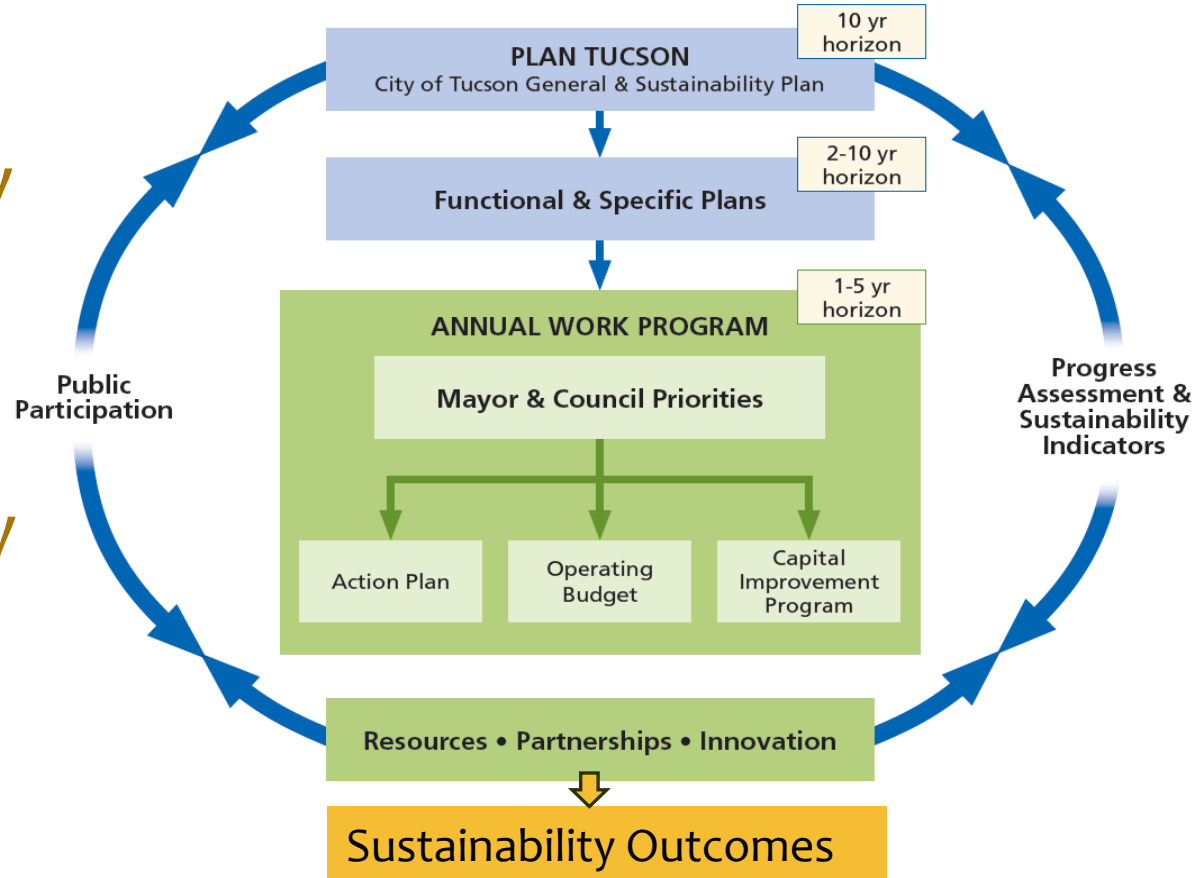
THE SOCIAL ENVIRONMENT

Plan Tucson Goals	Plan Tucson Policies	STAR Sustainability Metrics	Long-term Community Sustainability Outcomes
The City strives for a community that is healthy physically, mentally, economically, and environmentally.	PH1, PH2, PH7, PH8, PR3, PR5, PR7, AG3, GI3	Percentage of kids and adults that are physically active	Every resident has fundamental knowledge of, and physical and economic access to, healthy living opportunities that promote an active lifestyle, good nutrition, and physical wellness.
URBAN AGRICULTURE			
The City strives for a sustainable urban food system.	AG1, AG2, AG3, AG4, PH2, LT10	Fresh food produced locally; access to low-cost healthy food; nutrition	A collaborative network integrates sustainable food production, processing, distribution, consumption, and waste management in order to create a more locally based, self-reliant food economy where all people, at all times, have physical and economic access to sufficient, safe, and nutritious food to meet their dietary needs and food preferences.
EDUCATION			
The City strives for an educated citizenry.	E1, E3, E4, E5, E6, E7, ED1	Reading proficiency; high school graduation rates	Equitable and lifelong educational attainment exists for all residents through a strong public school system, quality educational facilities, and a wide range of learning opportunities that are accessible and appropriately serve all segments and all ages of the populations.

Plan Tucson Goals	Plan Tucson Policies	STAR Sustainability Metrics	Long-term Community Sustainability Outcomes
An urban form that conserves natural resources, improves and builds on existing public infrastructure and facilities, and provides an interconnected multi-modal transportation system to enhance the mobility of people and goods.	LT1, LT9, LT11, LT12, LT13, LT14, LT15, LT16, LT22, LT25, ED5, PR9, PH1, PH4, PH8	Mode split; percent of income spent on transportation costs; pedestrian and bicyclist fatalities; vehicle miles traveled	Safe, affordable, diverse, and efficient mobility options are accessible to all residents, with emphasis on walking, bicycling, and mass transit that reduce vehicle miles traveled.
An urban form that conserves natural resources, improves and builds on existing public infrastructure and facilities, and provides an interconnected multi-modal transportation system to enhance the mobility of people and goods.	ED1, ED10	Residential housing density in urban core; employment density; diversity of land uses; transit availability; walkability; urban design standards for density (e.g., setbacks).	This is a centered city with a vibrant downtown core that: is an appealing and valued community asset; embodies the City's economic heart and cultural soul; represents a shared community vision; attracts residents and visitors alike; reflects genuine partnership and coordination between municipal, business, non-profit, and neighborhoods; and is supported by appealing gateways and corridors that connect with other major activity centers.

The Process of Implementation

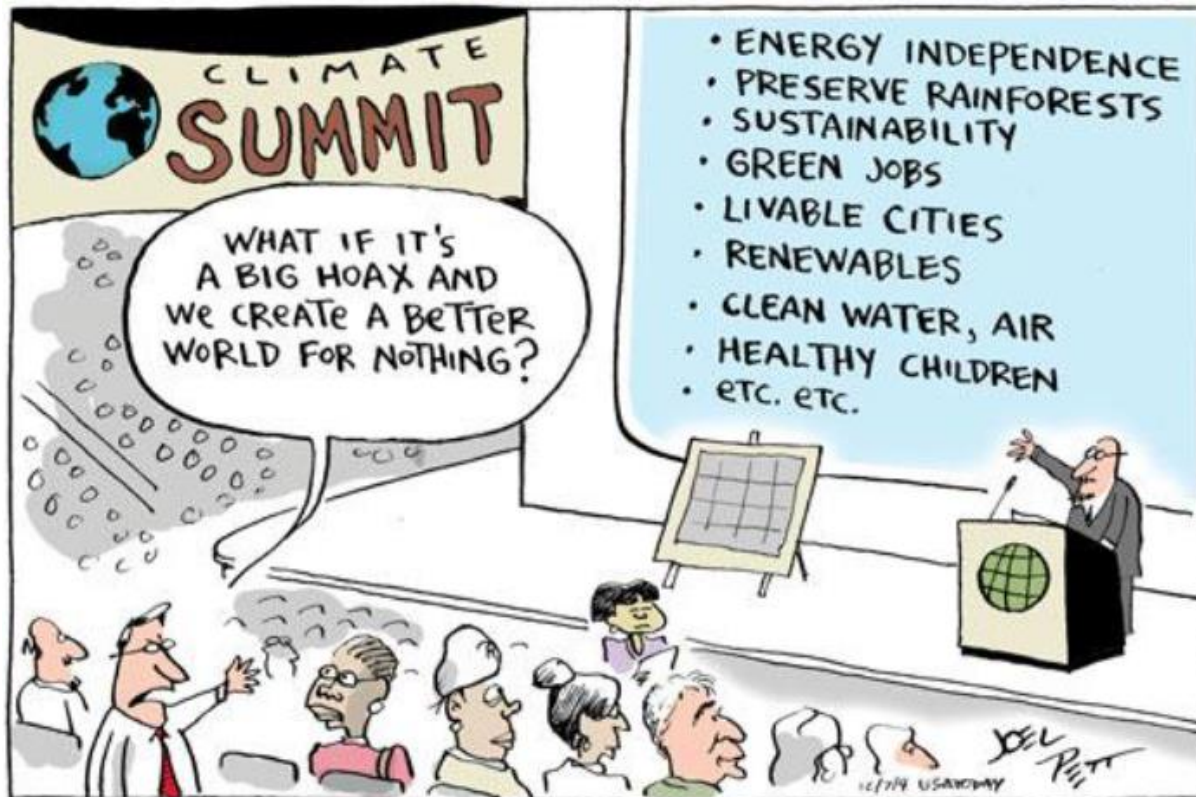
- * Will be the overarching guide for all City efforts, budget
- * Will have progress metrics, publicly tracked



Next Steps

- * Internal restructuring, improved coordination
- * Continue to collect data for STAR pilot
- * Repurpose existing advisory committee
- * Coordinate with S.AZ Indicators Project
- * Finalize Plan Tucson metrics, tracking tools
- * Data dashboards
- * Develop action plans...

Questions?



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Achieving Sustainability: Setting Goals and Measuring Progress



Thank You!

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