






Too Much of a Good Thing?




Approaches to Rating Sustainability and Assessing Performance




Session Agenda




Time	
10:30 – 10:45	Introduction and Overview
10:45 – 11:30	Panel Presentations and Q&A
11:30 – 12:00	Break out activity and Wrap-up




Panelists

- **Brice Maryman**, SvR Design Company
- **Steve Muench**, Greenroads Foundation
- **Justus Stewart**, O'Brien & Company

What Do You Need?

- A large state university with multiple campuses
- A large city park on a lake in a large West Coast city
- A semi-urban community in the Puget Sound region
- A new urbanist development on an inland lake

Approaches to Rating Sustainability and Assessing Performance
WA APA 2013 Conference

INTRODUCTION

Measuring Sustainability from Buildings to Landscapes and Infrastructure

1998 2013







LEED Living Building SITES Green Roads ENVISION STAR Communities

Measuring What Matters

- Quantification of impacts and benefits
- Valuation
- Data collection, analysis and lessons learned
- Third-party verification
 - Accountability
 - Common yardstick
 - Access to incentives and funding



Current and Emerging Rating Systems

-  LEED-ND
 -  Living Building Challenge (Landscape and Infrastructure)
 -  THE SUSTAINABLE SITES INITIATIVE
 -  Greenroads
 -  ENVISION
 -  STAR COMMUNITIES
- LEED for Neighborhood Developments
 - Living Building Challenge (Landscape and Infrastructure)
 - Sustainable Sites Initiative
 - Greenroads
 - Envision
 - STAR Community Index

Other Related Rating Systems/Initiatives

- Built Green Communities
- Enterprise Green Communities
- FHWA's InVEST
- Sustainable Transportation Access Rating System
- Sustainable Asset Management
- Landscape Performance Series
- Complete Streets
- Eco Districts
- Salmon Safe
- One Planet Living/EcoConcierge
- Green Factor



In-house Program Examples

- King County Sustainable Infrastructure Scorecard
- Sound Transit Sustainability Checklist
- National Park Service Sustainability Checklist
- WSDOT – Sustainable Practices Plan pilot



Internal Programs

- | | |
|--|--|
| <p>Pro</p> <ul style="list-style-type: none"> • Development speed • Custom, unique to your community or organization • Internally regulated • Control marketing/messaging | <p>Con</p> <ul style="list-style-type: none"> • Not widely applicable / comparable • Need to provide infrastructure to support • Staff responsible for accountability • No external verification • No external brand |
|--|--|



[Approaches to Rating Sustainability and Assessing Performance](#)
WA APA 2013 Conference

LEED FOR NEIGHBORHOOD DEVELOPMENT




What LEED-ND Is: A Collaborative Program



LEED FOR NEIGHBORHOOD DEVELOPMENT

What LEED-ND Is:



IMPROVED QUALITY OF LIFE

Credit Categories

LEED® for Neighborhood Development	
Total Possible Points**	110*
Smart Location & Linkage	27
Neighborhood Pattern & Design	44
Green Infrastructure & Buildings	29
<small>* Out of a possible 100 points + 10 bonus points</small>	
<small>** Certified 40+ points, Silver 50+ points, Gold 60+ points, Platinum 80+ points</small>	
Innovation & Design Process	6
Regional Priority Credit	4

Smart Location & Linkage: Goals



- Pick the right site**
 - Infill
 - Previously Developed
 - Adjacent & Connected
 - Transit-Accessible
- Build on the right portion**
 - Avoid development on wetlands & water bodies, agricultural land, and in floodplains

Neighborhood Pattern & Design: Goals

Compact, Complete, Connected

- People connected to place and to each other
- Shared public spaces
- Nearby goods and services



Green Infrastructure & Buildings: Goals

- Reduce resource use
- Maximize ecological opportunities



Representative Types of Projects


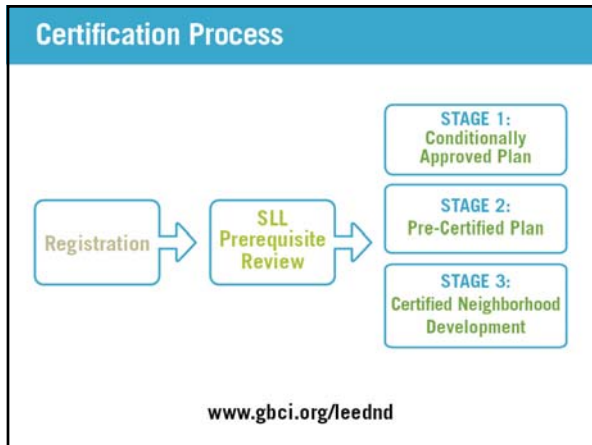
- Urban infill
- Suburban retrofit
- Small community
- Brownfield redevelopment
- Transit oriented development
- Development on adjacent land



Considerations

LEED-ND is designed for individual development projects

- Not a replacement for comprehensive planning
- Not designed to rate zoning codes or comprehensive plans
- Not designed to rate existing, stable neighborhoods
- Not designed to rate an entire town, county or city



Approaches to Rating Sustainability and Assessing Performance
WA APA 2013 Conference

LIVING BUILDING AND INFRASTRUCTURE

LIVING BUILDING CHALLENGE™

A Visionary Path to a Restorative Future

www.livingbuildingchallenge.org





THE METAPHOR OF THE FLOWER

ROOTED IN PLACE AND YET:
 Harvests all energy + water
 Is adapted to climate and site
 Operates pollution free
 Is comprised of integrated systems
 Is beautiful

© 2013 Int'l Living Future Institute www.livingbuildingchallenge.org

WHY A CHALLENGE?

- Infusing inspiration and poetry
- Rewarding early adopters
- Creating models for the future
- Stirring the pot
- Pulling the market forward

© 2013 Int'l Living Future Institute www.livingbuildingchallenge.org

SITE **WATER** **ENERGY**

HEALTH **MATERIALS** **EQUITY** **BEAUTY**

© 2013 Int'l Living Future Institute www.livingbuildingchallenge.org

Renovation **Landscape + Infrastructure**

Building **Neighborhood**

FOUR TYPOLOGIES

© 2013 Int'l Living Future Institute www.livingbuildingchallenge.org

3 CERTIFICATION PATHS

© 2013 Int'l Living Future Institute www.livingbuildingchallenge.org

SUMMARY MATRIX

NEIGHBORHOOD	BUILDING	LANDSCAPE + INFRASTRUCTURE	RENOVATION	
				01 LIMITS TO GROWTH
				02 URBAN AGRICULTURE
				03 HABITAT EXCHANGE
				04 CAR FREE LIVING
				05 NET ZERO WATER
				06 ECOLOGICAL WATER FLOW
				07 NET ZERO ENERGY
				08 CIVILIZED ENVIRONMENT
				09 HEALTHY AIR
				10 BIOPHILIA
				11 RED LIST
				12 EMBODIED CARBON FOOTPRINT
				13 RESPONSIBLE INDUSTRY
				14 APPROPRIATE SOURCING
				15 CONSERVATION + REUSE
				16 HUMAN SCALE + HUMANE PLACES
				17 DEMOCRACY + SOCIAL JUSTICE
				18 RIGHTS TO NATURE
				19 BEAUTY + SPIRIT
				20 INSPIRATION + EDUCATION

Scale Jumping Solutions permissible Incentive optional for corresponding Typology

SUMMARY MATRIX

© 2013 Infi Living Future Institute www.livingbuildingchallenge.org



Approaches to Rating Sustainability and Assessing Performance
WA APA 2013 Conference

SUSTAINABLE SITES INITIATIVE (SITES)

THE SUSTAINABLE SITES INITIATIVE™

An interdisciplinary effort to create national guidelines and a voluntary rating system for sustainable land design, construction and maintenance

AMERICAN SOCIETY OF LANDSCAPE ARCHITECTS
ASA Liberty & Constitution Advocacy Fund

Lady Bird Johnson Wildflowercenter
NATIONAL SYSTEM OF PUBLIC GARDENS

UNITED STATES BOTANIC GARDEN

© 2013 Sustainable Sites Initiative™

- Participants/Coordinating Committee**
- American Society of Civil Engineers/Environmental and Water Resources Institute (rating system: ENVISION)
 - American Nursery and Landscape Association
 - EPA / Office of Smart Growth
 - General Services Administration
 - National Association of County and City Health Officials
 - National Park Service
 - National Recreation and Park Association
 - Office of Federal Environmental Executive/Council on Environmental Quality
 - Professional Landcare Network (PLANET)
 - US Air Force
 - US Green Building Council (rating system: LEED)

SITES Framework: *Ecosystem Services*

- Regulate local and global climate
- Erosion and sediment control
- Cleanse air and water
- Provide habitat
- Provide food and non-food renewable products
- Decompose and treat "waste"
- Regulate water supply
- Improve human health and well being
- Provide cultural benefits

ISLANDS


- Air and water cleansing
- Water supply and regulation
- Natural mitigation
- Human health and well-being benefits
- Food and renewable non-food products

MARINE


- Global climate regulation and treatment
- Waste decomposition
- Food and renewable non-food products
- Cultural benefits

© 2013 Sustainable Sites Initiative™

Timeline




Guidelines & Performance Benchmarks 2009	Released November 2009
Pilot Program	June 2010 – June 2012
Public Comment Period on Proposed 2013 Credits	Sept. 26 – Nov. 26, 2012
Release of 2013 Rating System/Reference Guide	Fall 2013
Open Enrollment / Education + Training	Fall 2013
Professional Credentialing Program	Anticipated in 2014



© 2013 Sustainable Sites Initiative™

SITES Goals

Develop stand-alone Rating System: Project Certification (and eventually Professional Training)




Influence existing rating systems and codes
(Collaborate & coordinate, e.g. with LEED™)

Promote use of guidelines and principles (without certification)

© 2013 Sustainable Sites Initiative™

Proposed 2013 Rating System – credit sections



- Site Context
- Pre-Design Assessment and Planning
- Site Design – Water
- Site Design – Soil and Vegetation
- Site Design – Materials Selection
- Site Design – Human Health and Well-Being
- Construction
- Operations and Maintenance
- Education and Performance Monitoring

© 2013 Sustainable Sites Initiative™


What it doesn't address

- Embodied carbon in materials
- Indirectly supports urban agriculture
- Economics

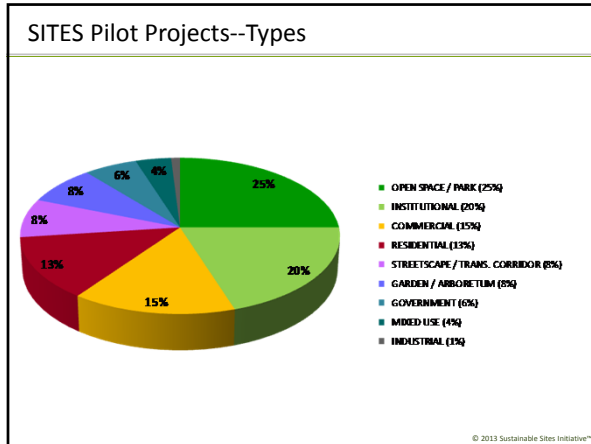
.....provides an option/incentive to create actual monitoring plan

SITES Pilot Project Locations (2010 – 2012)

- 345 applicants from around the world
- Over 150 Registered Pilot Projects—range of project types and sizes, geographic diversity
- Goal was to gain feedback to revise credits and inform Reference Guide



© 2013 Sustainable Sites Initiative™



23 pilot projects certified to date

Project Types

- 8 Parks/Open Space 35%
- 4 Public Garden/Arboretum 17%
- 4 Educational (University) 17%
- 3 Commercial 13%
- 2 Residential 9%
- 1 Industrial 4%
- 1 Government complex 4%

....and 75 continue to pursue certification through 2014

© 2013 Sustainable Sites Initiative™

Approaches to Rating Sustainability and Assessing Performance
WA APA 2013 Conference

GREENROADS



What is the Greenroads Rating System?

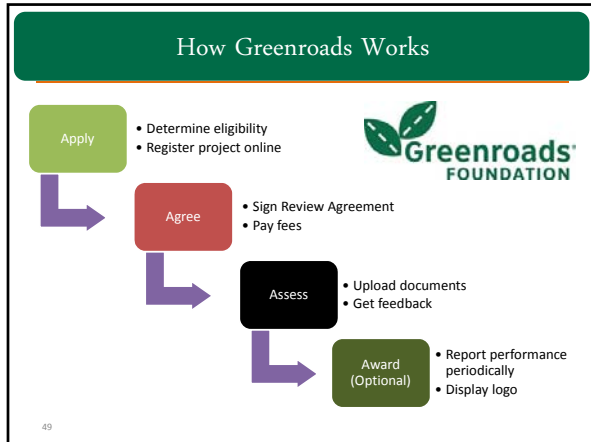
- Third-party certification process similar to LEED®
 - Applies to new and reconstructed surface transportation projects
 - Recognizes and quantifies roadway sustainability
 - Minimum set of baseline requirements
 - Awards points (1-5) for sustainable practices
- Over **\$4 billion** in construction value represented

What can I do on my project tomorrow to be more sustainable?

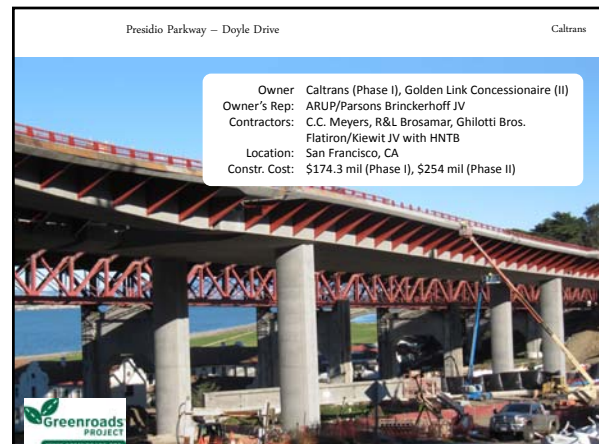
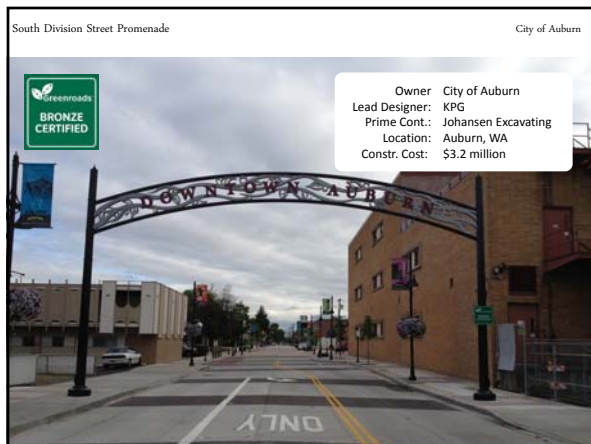
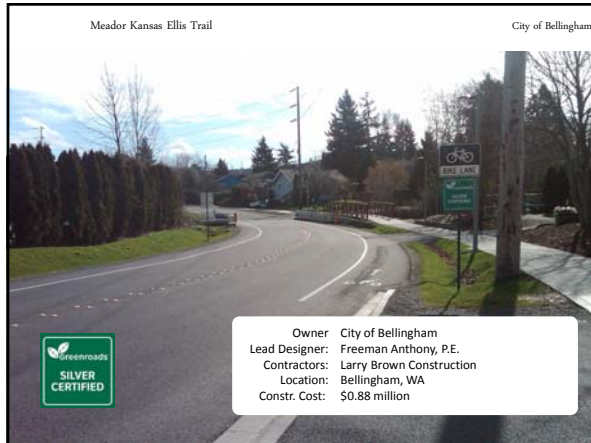
The Greenroads Story

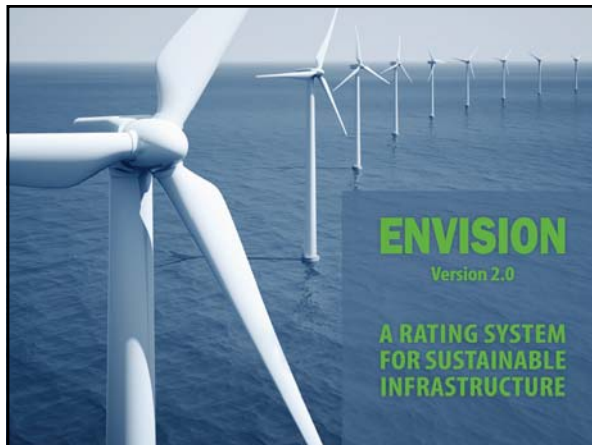
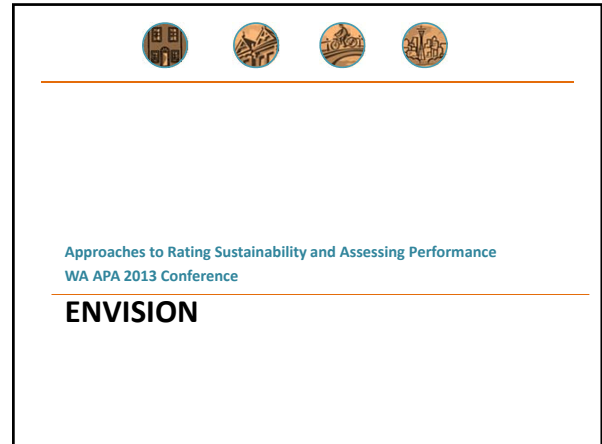
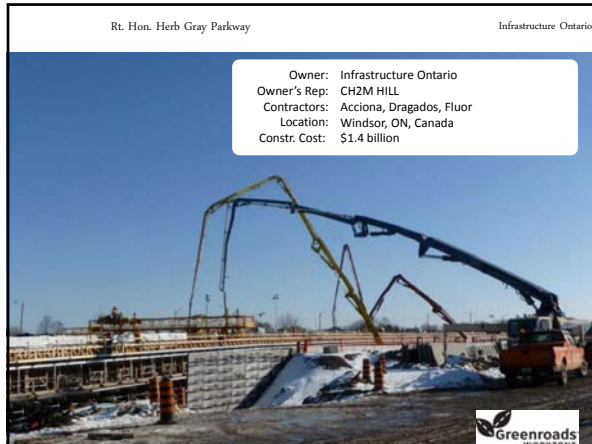
- Development:
 - Began in 2007 at University of Washington
 - Industry, local and DOT research support
 - 5 years, 100+ people, 120+ test projects
- Managed by Greenroads Foundation since 2010
 - Independent 501(c)(3) set up for sustainable transportation education
 - Individual members, organizations, volunteers and 76 STPs worldwide

4
8



- ### Project Rating System - Statistics
- 7 Certified
 - 6 in Washington, 1 in California
 - 4 Silver
 - 3 Bronze
 - 39 Projects Pursuing Certification (in Progress)
 - 7 states registered, 2 in Canada, 3 in New Zealand
 - At least 5 more projects pending registration in 2013
 - 7 Projects Pursuing Assessment (Pilot, A-Lined)
 - 1 project in Canada
 - 4 projects in New Zealand
 - 2 projects in South Africa
- 50





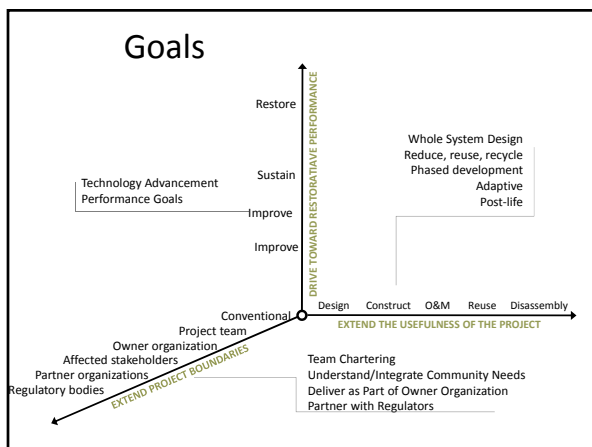
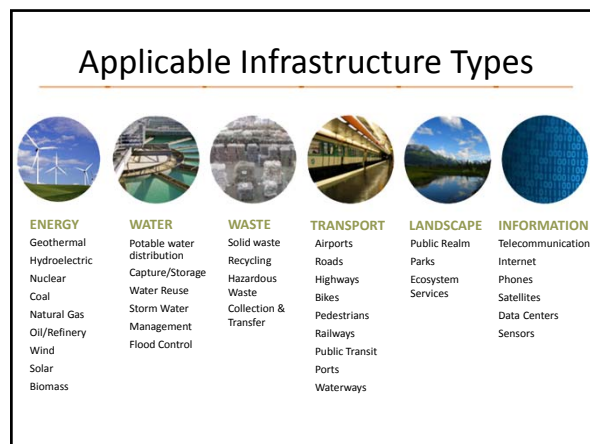
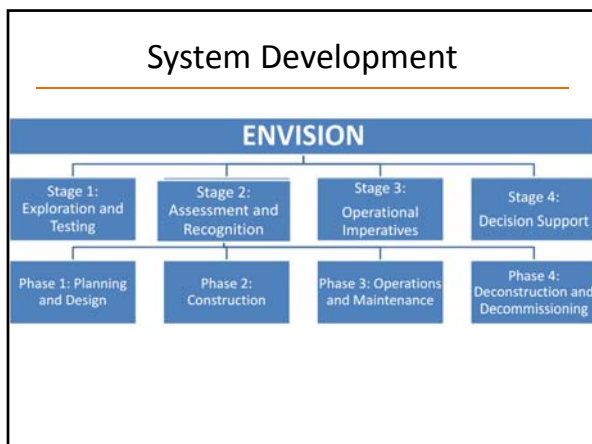
Why Was Envision™ Developed?

- Current rating systems for infrastructure in the U.S. are sector specific
- No U.S. system covers all aspects of infrastructure
- Envision is designed to fill the gap

Maintenance Fail!

ASCE Report Card on America's Infrastructure

- Ranked 23rd worldwide
- 15 categories
- Overall grade of D
- \$2.2 trillion needed

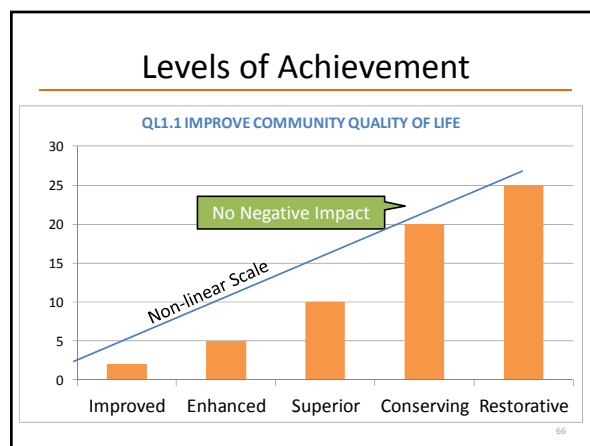


QL1.1 IMPROVE COMMUNITY QUALITY OF LIFE

INTENT:
Improve the net quality of life of all communities affected by the project and mitigate negative impacts to communities.


IMPROVED	ENHANCED	SUPERIOR	CONSERVING	RESTORATIVE
(1) Internal focus. The project team has located and reviewed the most recent and relevant community planning information. Some, but not systematic outreach to stakeholders.	(3) Community linkages. More substantive efforts to locate, review, assess and incorporate the needs, goals and plans of the host community into the project. Most potential negative adverse	(10) Broad community alignment. All relevant community plans are reviewed and verified through stakeholder input. The project team works to achieve good project alignment with community plans.	(20) Holistic assessment and collaboration. The project makes a net positive contribution to the quality of life of the host and nearby affected communities. The project team	(25) Community renaissance. Through revitalization of important community assets, upgraded and extended access, increased safety, improved environmental quality and additional infrastructure

- All credits contain:
 - Description
 - Advancing levels
 - Evaluation / documentation
 - Sources




Award Levels

Recognition Level	Minimum Applicable Points	Minimum in Each Category
Bronze	20%	No minimum category percentage required
Silver Award	30%	
Gold Award	40%	
Platinum Award	50%	



67





Approaches to Rating Sustainability and Assessing Performance
WA APA 2013 Conference

STAR COMMUNITIES

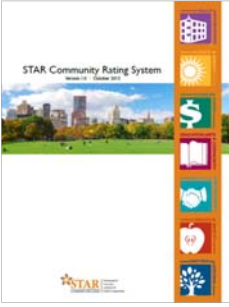


STAR Communities helps cities and counties achieve meaningful sustainability through the *first national framework* for local community efforts.


www.STARcommunities.org

STAR Communities

- Originally founded by: ICLEI-Local Governments for Sustainability, U.S. Green Building Council, and Center for American Progress
- Managed by the NGO STAR Communities
- Funded through grants and fees
- 30 Pilot Communities testing the rating system nationwide



Goal Areas



Objectives

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	



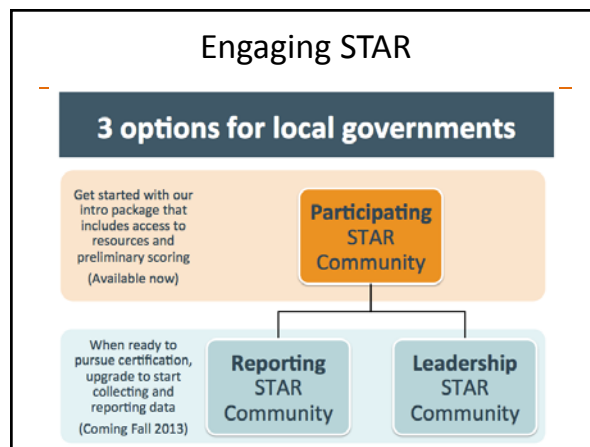
Measurement Approach

- Community Level Outcomes
 - Community Level Outcomes are measurable, condition-level indicators that show community progress on a STAR Community Rating System Objective.
- Local Actions
 - Local Actions are a range of decisions and investments that a local community can make or activities they engage in that are essential to achieving Outcomes.
 - Relevant, Feasible, Timely, Useful, Valid, Systemic, Reliable
- Scoring approach

Action Types	Points assigned*
Preparatory actions	
Education and Outreach (EO)	1
Plan Development (PD)	2
Policy and Code adjustment (PCA)	2 or 3
Partnerships and Collaboration (PC)	1
Practice Improvements (PI)	1
Inventory Assessment or Survey (SA)	1
Implementation scores	
Education and Outreach (EO)	4
Programs and Services (PS)	4
Facilities and Infrastructure (FI)	6

*Based on impact relative to other actions and level of effort

Professional® Rating Levels	Point Range
Participating STAR Community	66
Reporting STAR Community	50-65
3 STAR Community	200-399
4 STAR Community	400-599
5 STAR Community	600+



Engaging STAR

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
Reporting Tool Access		X	X
STAR Coordinator			X
Two-Day In-Person Kickoff Training			X
Monthly Webinars			X
Media Services			X
Certification		X (additional \$1,500 fee)	X
Intro Pricing	\$500/year	\$1,500/year	\$5,000-\$15,000 based on population

Engaging STAR

- Opportunity to participate at the Leadership level by applying before October 15, including potential financial assistance through the Funders Network for Smart Growth and Livable Communities.
- <http://www.starcommunities.org/get-started/leadership-star-community-program>

Coordinate Work Across Jurisdictions + Sharing Successes

Seattle and King County, WA are using the STAR Community Rating System to align performance metrics between the two jurisdictions and to identify ways to streamline sustainability work and increase results.



Exercise

- Break into 4 groups – one for each scenario
- Spend 15-20 minutes discussing how best to use these tools in that scenario
- Panelists roaming to answer questions
- 2 minutes for each team to report out



♪ Too Much of a Good Thing

♪ You're too much,
you're too much.
You're too much of a
good thing,
You're too much of a
good thing,
too much
Much too, much too,
much too, much too,
much too, much too,
much too much,
You're too much of a
good thing. ♪



Thank You! More Info



- LEED for Neighborhood Developments
www.usgbc.org/neighborhoods



- Living Building Challenge
<http://living-future.org/lbc/about>



- Sustainable Sites Initiative
www.sustainable-sites.org



- Greenroads
www.greenroads.org



- Envision
www.sustainableinfrastructure.org



- STAR Community Index
www.starcommunities.org