

Today's Presentation



- Why urban sustainability appraisal?
- Appraisal tool qualities
- Profiles of a dozen assessment & rating tools
- Tool selection guidance
- Q&A

Learning Objectives

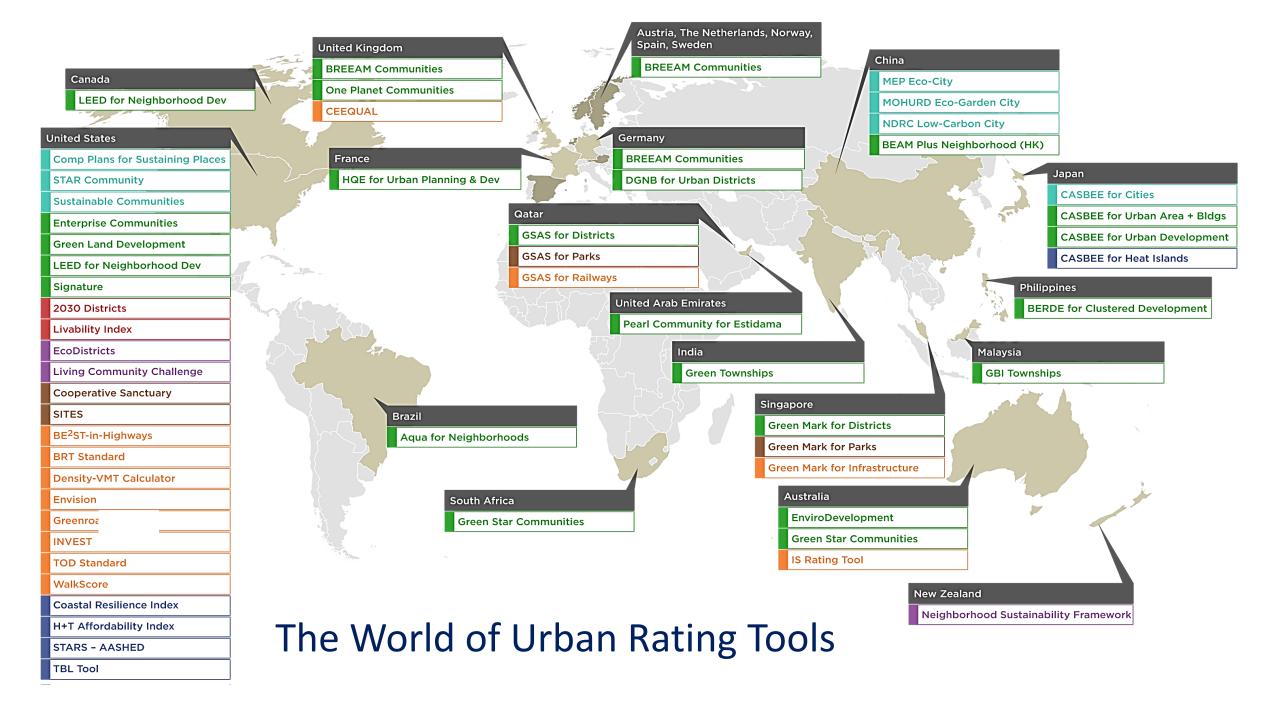


- 1. Understand the value of urban sustainability appraisal
- 2. Recognize the qualities of an appraisal tool
- 3. Be aware of the 12 profiled U.S. tools
- 4. Know how to select a best-fit tool



TransformativeTools.org

Tools Registry



Tool Definition for Today's Webinar

<u>urban</u>

Built environment beyond buildings

sustainability

Well-being for future generations

appraisal

Quantitative assessment or rating

tool

Publicly available nationally in the U.S.

A Dozen U.S. Tools

Urban Components

- SITES
- Envision

Neighborhoods

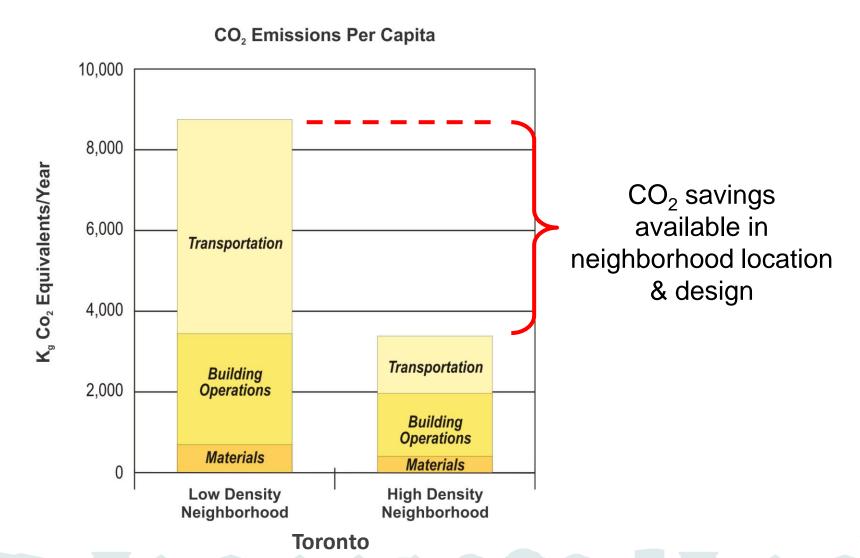
- 2030 Districts
- EcoDistricts Certified
- Green Communities
- Living Comm. Challenge
- LEED Neighborhood Dev.
- LEED for Communities

Cities

- Sustaining Places
- Sustainable Communities
- LEED for Cities
- STAR Community



What's at Stake







Inclusive & Collaborative Appraisal

DECLARATION OF COLLABORATION TEMPLATE

- Intent
- District & backbone org description
- Backbone org role & responsibilities
- Decision-making body (district team)
- Decision-making procedures
- Stakeholder resources
- Imperatives alignment
- Interim boundary & asset map

EcoDistricts Certified



Those Most Vulnerable to Inequities







- People of color
- People of low income
- Youth and the elderly
- Recent immigrants and persons with limited English
- People with disabilities
- The homeless

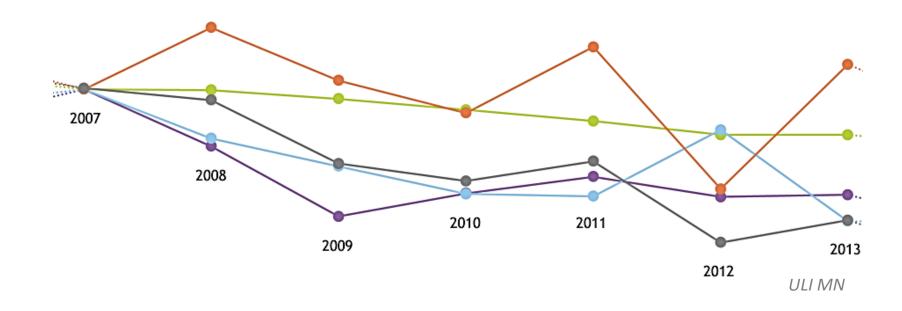


Tools as Sustainability Accelerators

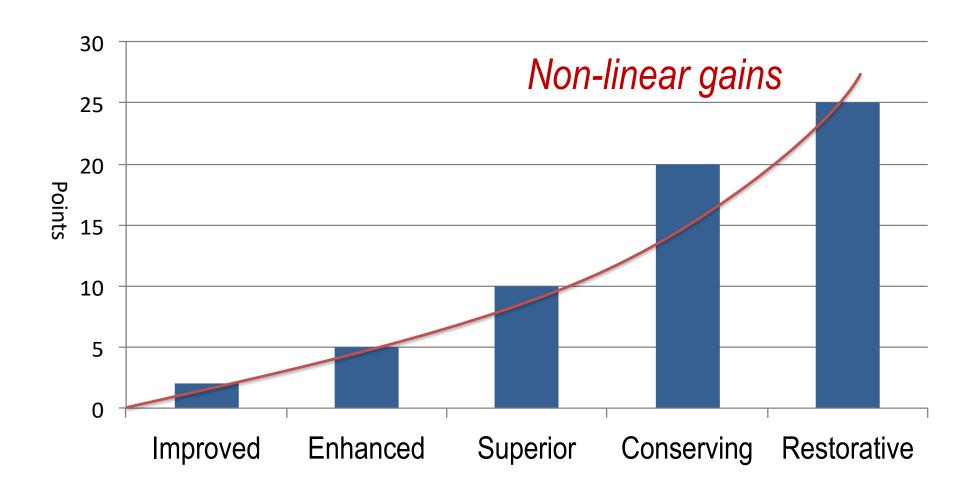
 You can't manage what you don't measure

 When you do measure, gains can be accelerated





Envision Infrastructure Rating System



Monetizing Sustainability Gains in Miami Beach

Buildings over 7,000 sq. ft. pay 5% of construction cost to Sustainability Fund

<u>Certification compliance ochequie</u>					
Level of Certification Achieved		Sustainability Fee Reimbursement to			
		Participant for meeting certain Green			
		Building certification levels			
		0% refund of bond or payment of			
Failure to obtain Certification		Sustainability fee			
		50% refund of bond or payment of			
LEED Certified		Sustainability Fee			
		66% refund of bond or payment of			
LEED Silver Certified		Sustainability Fee			
LEED Gold Certified or International					
Living Future Institute Petals or Net	1	100% refund of bond or payment of			
Zero Energy Certified		Sustainability Fee			
LEED Platinum Certified or					
nternational Living Future Institute		100% refund of bond or payment of			
Living Building Challenge Certified		Sustainability Fee			

Uses of Sustainability Fund

- (1) Environmental restoration projects;
- (2) Environmental remediation projects;
- (3) Environmental monitoring;
- (4) Green infrastructure;
- (5) Enhanced storm water quality and quantity improvements;
- (6) Sustainability planning efforts.

Ordinance 2016-3993



THE BUILDINGS COMMUNITY BLOG CONTACT

PORTLAND'S NEWEST NEIGHBORHODD

AN ECO-COMMUNITY, BRINGING US TOGETHER

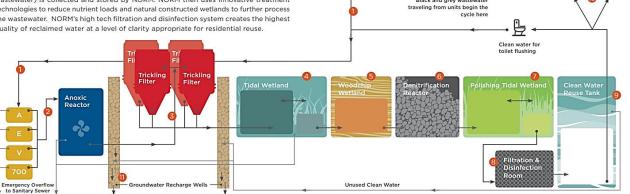
100% Onsite Wastewater Treatment

Over \$1 million saved on SDC

SO HOW DOES THIS WORK?

NORM DIAGRAM IN MOTION

Every used drop of water from sinks, toilets, showers and laundry (black and grey wastewater) is collected and stored by NORM. NORM then uses innovative treatment technologies to reduce nutrient loads and natural constructed wetlands to further process the wastewater. NORM's high tech filtration and disinfection system creates the highest quality of reclaimed water at a level of clarity appropriate for residential reuse



I. Primary Tanks collect and store wastewater from

loads from the wastewater.

8. Mechanical filters screen out fine particles. Ultraviolet (UV) and ozone technology is used to kill pathogens and improve water clarity.

9, and 10. Clean water is stored and distributed for

11. Any unused treated water is infiltrated into the ground via groundwater recharge wells

Irrigation

LEED ND Platinum

^{3.} Trickling Filters further reduce nutrient loads and

^{4, 5, 6} and 7. Natural Treatment Wetlands work using a tidal-flow (fill and drain) process to foster naturally occurring microbial organisms used to

Tool Qualities

- Scope and scale of appraisal
- Assessment procedure/criteria
- Costs to use

- Tool maturity
- User support
- Overall usefulness

Appraisal Scope & Scale

- Topical scope environmental, economic, social
- Physical scale entire city, neighborhood, component system
- Built environment status planned or existing or both
- Minimum required elements number of acres, buildings

Appraisal Criteria

- Mandatory, elective, or mixed
- Prescriptive or performance-based criteria
- Criteria adaptable to local conditions/priorities
- Formulation process transparent, multiple experts, public comment
- Regularly updated



Appraisal Procedure

- One-time, self-assessment by user 1st party
- One-time, completed by tool provider 2nd party
- One-time, completed by independent reviewer 3rd party
- Performance reporting, certification maintenance via 2nd or 3rd party

Timeframe



- Time required to complete an appraisal:
 - Hours e.g. Green Communities self-assessment
 - Weeks e.g. Sustaining Places
 - Months e.g. Envision, LEED ND
 - Years e.g. EcoDistricts Certified, Living Community

Costs \$

- Tool provider fees
- Reference materials, training
- Expenses to complete process & documentation
- Ongoing costs to maintain rating, report performance

Tool Provider & User Support

- Type of organization, history with tool
- Technical guidance documentation
- Training availability
- Tool-related credential
- Staff/other support services





Appraisal Tools as the Swiss Army Knives of Sustainability

- Best thinking on standards, process & indicators
- Public/professional education
- Collaboration platforms
- Self-assessment devices
- Formal certification tracks, performance reporting
- Monetizing sustainability outcomes



A Dozen Tools – *Urban Components*

Urban Components

- SITES
- Envision

Neighborhoods

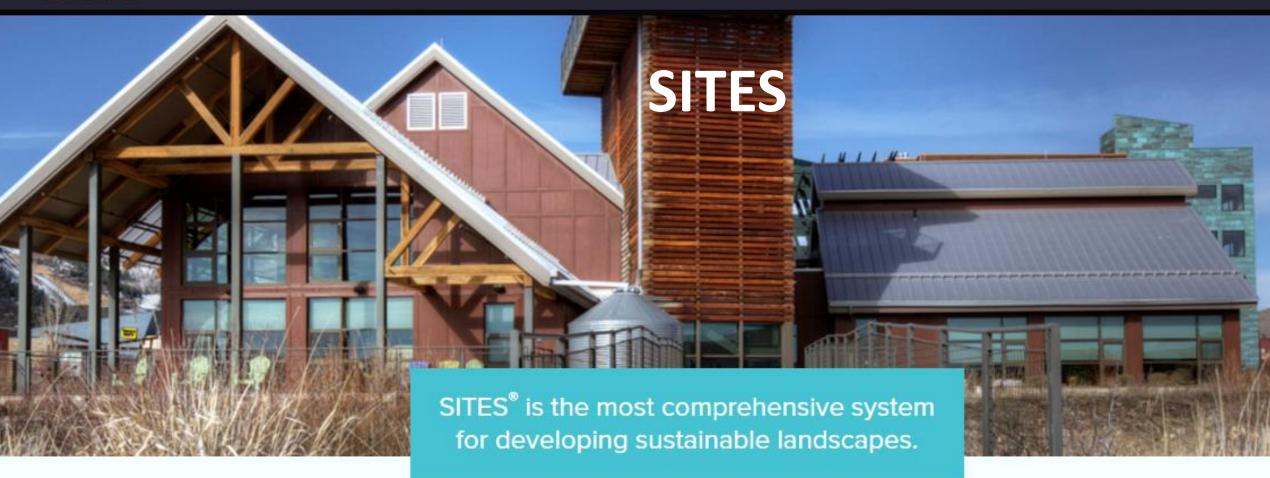
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- LEED Communities

Cities

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- Sustainable Communities
- LEED Cities
- STAR Community

CERTIFICATION





SITES is used by landscape architects, designers, engineers, architects, developers, policy-makers and others to align land development and management with innovative sustainable design.

Land is a crucial component of the built environment and can be planned, designed, developed and

SITES v2 Rating System

For Sustainable Land Design and Development









Sustainable

SITES

Initiative

SECTION 1: SITE CONTEXT

SECTION 2: PRE-DESIGN ASSESSMENT & PLANNING

SECTION 3: SITE DESIGN — WATER

SECTION 4: SITE DESIGN — SOIL + VEGETATION

SECTION 5: SITE DESIGN — MATERIALS

SECTION 6: SITE DESIGN — HUMAN HEALTH + WELLBEING

SECTION 7: CONSTRUCTION

SECTION 8: OPERATIONS + MAINTENANCE

SECTION 9: EDUCATION + PERFORMANCE MONITORING

SECTION 10: INNOVATION + EXEMPLARY PERFORMANCE

SITES CERTIFICATION 200 TOTAL POINTS

CERTIFIED	70
SILVER	85
GOLD	100
PLATINUM	135

SITES

SustainableSites.org

Focus	Criteria	Procedure	Cost
Landscapes	Rating system, no cost	1-time, point- based rating of project plan	\$8,000 >

How SITES Moves the Sustainability Leadership Needle

- Deep singular focus: dedicated exclusively, rigorously to sustainable landscapes
- Rewards public engagement & education sparking leadership





ENVISION

JOIN

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Q



Create your free Envision account now.

ENVISION - 60 Credits in 5 Categories Worth 758 Points



QUALITY OF LIFE

Purpose, Community, Wellbeing



LEADERSHIP

Collaboration, Management, Planning



RESOURCE ALLOCATION

Materials, Energy, Water



NATURAL WORLD



Siting, Land, Water, Biodiversity

Emissions, Resilience

Percentage of Points Achieved 20% 30% 40% 50%









ENVISION

SustainableInfrastructure.org

Focus	Criteria	Procedure	Cost
Infrastructure	Rating system, no cost	1-time, point- based rating of project plan	\$10,000 > by project cost

How ENVISION Moves the Sustainability Leadership Needle

• Embraces critical elements: civil engineering profession & infrastructure investments

Rewards engagement & collaboration – inducements to leadership



A Dozen Tools - Neighborhoods

Urban Components

- SITES
- Envision

Neighborhoods

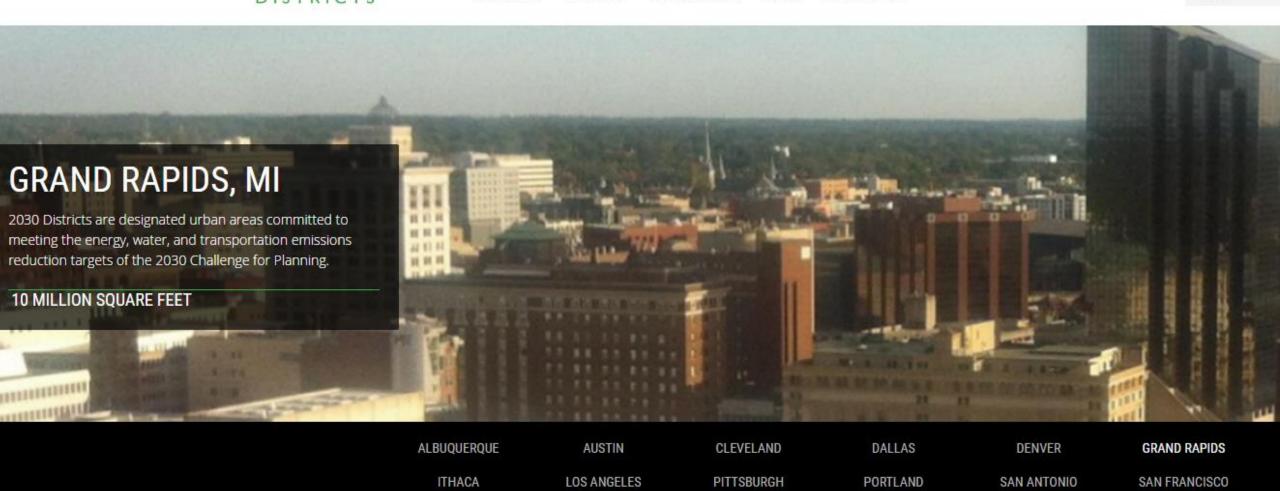
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SEATTLE

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STAMFORD

With over **294 MILLION SQUARE FEET** of commercial building space, 2030 Districts are rapidly emerging

TORONTO

2030 DISTRICTS Performance Targets

Existing buildings:

 50% reduction by 2030 - energy use, water use, transportation GHG emissions

New buildings:

- Energy immediate 50% reduction, carbon neutral by 2030
- Water immediate 50% reduction
- Transp GHG immediate 50% reduction

2030 DISTRICTS

2030districts.org

Focus	Criteria	Procedure	Cost
Central business districts	Website description, toolkits	Self-appraisal, shared results, coop purchasing & action	Varies by local district

How 2030 DISTRICTS Moves the Needle

- Grass-roots, self-organizing action induces leadership
- Shared data, tech assistance, communal buying power, to hit targets





A New Model of Urban Regeneration

The EcoDistricts Protocol

VERSION | 1.2

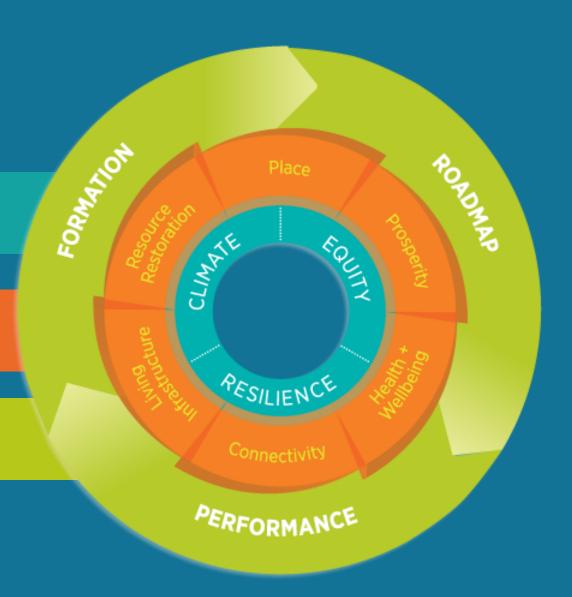
The Global Performance Standard that Empowers Sustainable Neighborhood- and District-Scale Development

ECODISTRICTS CERTIFIED Framework

3 IMPERATIVES

6 PRIORITIES

3 IMPLEMENTATION PHASES



ECODISTRICTS CERTIFIED

EcoDistricts.org

Focus	Criteria	Procedure	Cost
Neighborhood regeneration & development	Protocol, no cost	3-phase self- directed process, with performance reporting	\$10,400 certification; \$1,200/2 yrs cert maint

How ECODISTRICTS CERTIFIED Moves the Needle

- Functions as an engagement device, requires collaborative governance – kindling leadership
- Requires a carbon neutral target
- Uses performance reporting of locally-selected indicators for continuous improvement



Financing & Development

Solutions & Innovation

Policy & Advocacy Research & Resources

Where We Work

Blog

GREEN COMMUNITIES

Home > Solutions & Innovation > Green Communities



Enterprise Green Communities helps developers, investors, builders and policymakers make the transition to a green future for affordable housing.

ENTERPRISE COMMUNITY PARTNERS

Building Sustainable Organizations
Design Leadership

Equitable Transit-Oriented Development

Green Communities

Certification

Criteria & Certification

Tools & Services

Health & Housing

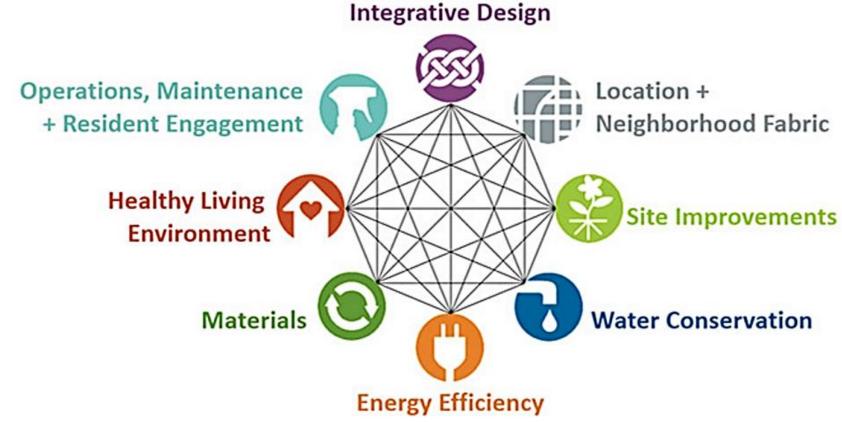
Public Sector Consulting & Technical

Assistance

Rural & Native American Housing

Contact Us

GREEN COMMUNITIES Framework



New construction – min. 35 points

GREEN COMMUNITIES

EnterpriseCommunity.org

Focus	Criteria	Procedure	Cost
Affordable housing	Rating system, no cost	1-time, point- based rating of plan & as-built	Free certification

How GREEN COMMUNITIES Moves the Needle

- Dedicated to affordable housing
- Mandatory charrette
- Rewards integrative design, resident engagement, performance monitoring



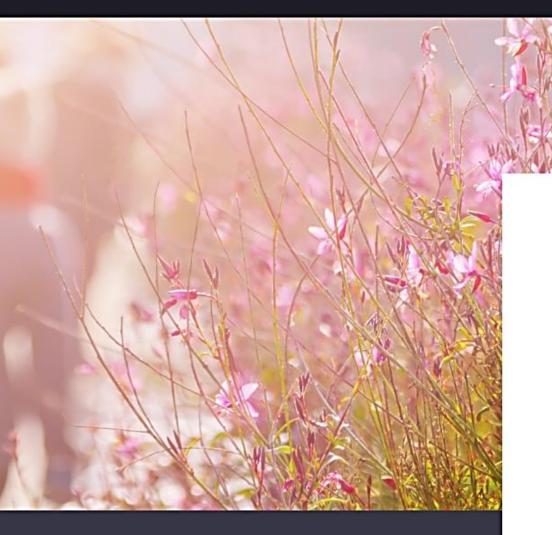
PROGRAMS

EDUCATION + EVENTS

ABOUT US

GET INVOLVED

Q



LIVING COMMUNITY CHALLENGE

How do we create communities that are good for everyone?

The Living Community Challenge is a framework for master planning, design, and construction. It is a tool to create a symbiotic relationship between people and all aspects of the built environment.

The program is a call to action to governments, developers, and planners to create communities that operate like forests.

GET THE BASICS

VIEW THE STANDARD

LIVING COMMUNITY CHALLENGE

PETALS & IMPERATIVES

PLACE

- 01. Limits to Growth
- 02. Urban Agriculture
- 03. Habitat Exchange
- 04. Human-Powered Living



MATERIALS

- 11. Living Materials Plan
- 12. Embodied Carbon Footprint
- 13. Net Positive Waste



WATER

05. Net Positive Water



EQUITY

- 14. Human Scale + Humane Places
- 15. Universal Access to Nature & Place
- 16. Universal Access to Community Services
- 17. Equitable Investment
- 18. Just Organizations



ENERGY

06. Net Positive Energy



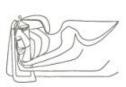
HEALTH & HAPPINESS

- 07. Civilized Environment
- 08. Healthy Neighborhood Design
- 09. Biophilic Environment
- Resilient Community Connections



BEAUTY

- 19. Beauty + Spirit
- 20. Inspiration + Education



LIVING COMMUNITY CHALLENGE

living-future.org

Focus	Criteria	Procedure	Cost
Neighborhood dev & redev	LCC Standard, no cost	3-phases, 100% prerequisites, 1 yr ops data	\$11,200 > by acreage

How LIVING COMMUNITY CHALLENGE Moves the Needle

- 100% prerequisites
- Aspirational standards, e.g. net positive energy/water/waste, social justice, sharing programs, nonprofit sector support, public art, disaster preparedness







LEED ND Rating System

Location







40-49

pts









60-79 80+ pts pts

Design





Construction



4 Prerequisites
17 Credits
29 Points

LEED for NEIGHBORHOOD DEVELOPMENT

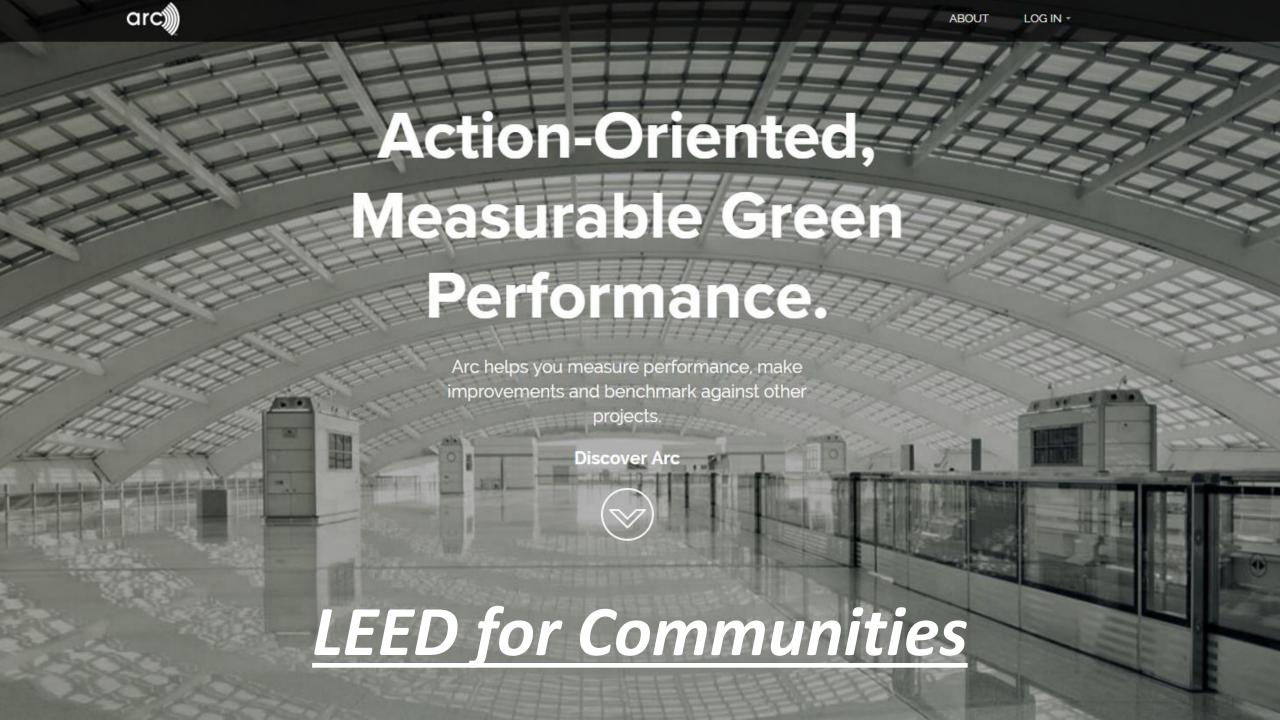
usgbc.org

Focus	Criteria	Procedure	Cost
Large development projects	Rating system, no cost	1-time, point- based rating of plan or constructed project	\$19,500 > by acreage

How LEED ND Moves the Sustainability Leadership Needle

- Smart locations for sustainable growth & redevelopment
- Rewards stakeholder outreach & engagement
- Basis for urban design policies and standards







Arc is ushering in a new era of green buildings, neighborhoods, communities and cities.

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Imagine a world where we are performing at the highest levels possible in terms of energy, water, resources and human health. A world where the spaces where we live, work, learn and play are net positive and where everyone using the space is involved in its improvement.

That future is possible with Arc.

Get started

 $\textbf{BUILDINGS} \to$

 $\textbf{COMMUNITIES} \rightarrow$

 $\text{CITIES} \to$

Communities provide data across 5 categories to generate a score:

- Energy
- Water
- Waste
- Transportation
- Human Experience

SCORING 1-100



LEED for COMMUNITIES

ArcSkoru.com

Focus	Criteria	Procedure	Cost
Performance indicators	Website description	Annual indicator reporting, converted to performance score	\$2500 registration + \$10,000/yr > by sq kilometers

How LEED for COMMUNITIES Moves the Needle

- Annual performance reporting
- Requires community engagement



A Dozen Tools - Cities

Urban Components

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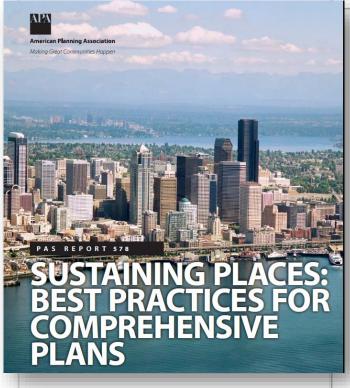


American Planning Association

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Making Great Communities Happen



Comprehensive Plan Standards for Sustaining Places

Welcome to APA's initiative on developing standards for comprehensive plans.

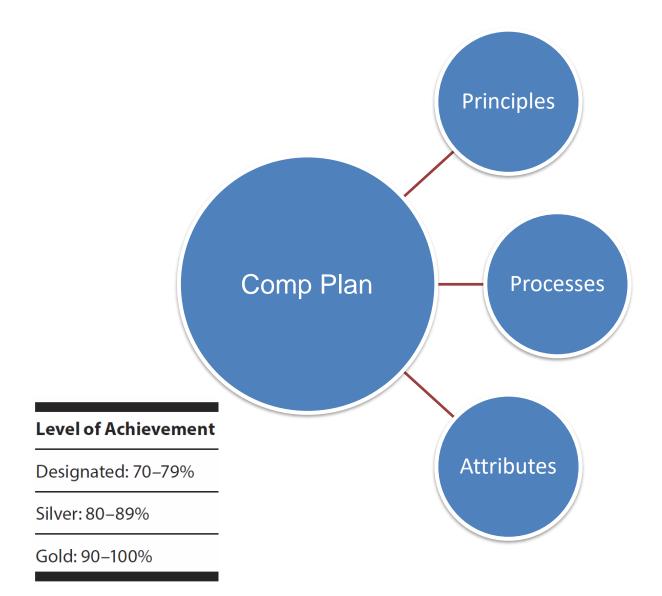
Background

APA's work in developing the comprehensive standards grew out of a larger APA initiative, **Sustaining Places**.

Through the Sustaining Places Initiative, the comprehensive plan was recognized as ideal vehicle for addressing the sustainability challenge:

Planning for sustainability is the defining challenge of the 21st century. Overcoming deeply ingrained economic and cultural patterns that result in resource depletion, climate instability, and economic and social stress requires holistic problem solving that blends the best scientific understanding of

SUSTAINING PLACES Framework



Principles

- 1. Livable Built Environment
- 2. Harmony with Nature
- 3. Resilient Economy
- 4. Interwoven Equity
- 5. Healthy Community
- 6. Responsible Regionalism

SUSTAINING PLACES

planning.org

Focus	Crite	eria Proce	dure Cost
City & count comprehens plans	,	Places 1-time, postices - based rations	•

How SUSTAINING PLACES Moves the Needle

- Dedicated to the most impactful community plan
- Supports self-assessment during local process







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SUSTAINABLE COMMUNITIES

About the Sustainable Communities Program

Sustainable Communities Program Overview

The Sustainable Communities Program (SCP) is an international, science-based, third-party certification program that guides communities through a customized journey to become healthy and vibrant places in which to live, work, and play. That vision is founded in the three pillars of sustainability: a healthy local environment, quality of life for citizens, and economic vitality. The program is tailored to your community to ensure that its specific needs, priorities, resources, and challenges are addressed.

The certification process is a joint effort between your sustainability coordinator and an appointed Audubon International staff person. Your community will

establish priorities, develop a plan, and take action

to create a more sustainable future for residents, businesses, and visitors.

Along the way, Audubon International provides tailored guidance, tools, and technical assistance. You will set the pace for addressing each of the fifteen broadly defined sustainability focus areas. Audubon International will help you share your community's successes with our international network.

This program works with public sector communities such as towns and cities (in the Public Track) or



Benefits of Membership



Download an Overview of The Sustainable Communities Program



Stories



SUSTAINABLE COMMUNITIES Focal Areas & Stages

STAGE ONE:

Community Outreach, Education, and Assessment

STAGE TWO:

Planning for Sustainability

STAGE THREE:

Implementing the Plan





- Agriculture
- Economic Development and Tourism
- Education
- Environment
- 5. Governance
- Public Health
- 7. Housing
- 8. Open Space and Land Use
- Planning, Zoning, Building and Development
- 10. Population
- 11. Public Safety and Emergency Management
- 12. Recreation
- 13. Resource Use (water, energy, waste)
- 14. Transportation
- 15. Volunteerism and Civic Engagement

Environmental Wellbeing

Social Wellbeing

Economic Wellbeing

SUSTAINABLE COMMUNITIES

AudubonInternational.org

Focus	Criteria	Procedure	Cost
Stakeholder engagement in planning, implementation	Stage handbooks available to registrants; indicators locally selected	3-phases, provider- local collaboration, indicator reporting; recertified biennially	\$500-1,000/yr by sector and stage

How SUSTAINABLE COMMUNITIES Moves the Needle

- Functions as an engagement device, cultivator of leadership
- Accessible for small/moderate-size cities
- Comprehensive approach, tailored to locality







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ArcSkoru.com

Imagine a world where we are performing at the highest levels possible in terms of energy, water, resources and human health. A world where the spaces where we live, work, learn and play are net positive and where everyone using the space is involved in its improvement.

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Get started

 $\textbf{BUILDINGS} \to$

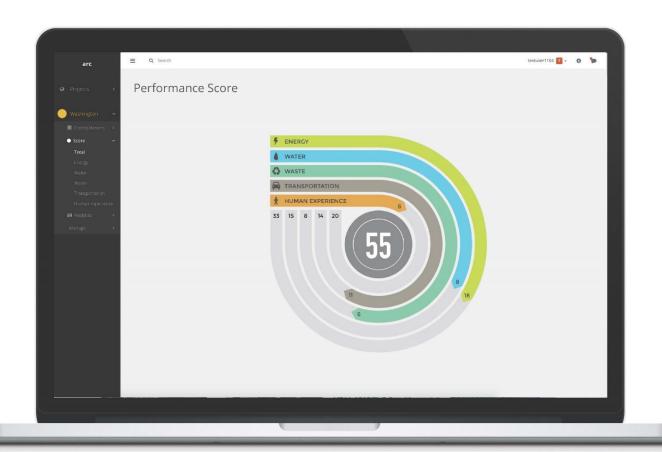
 $COMMUNITIES \rightarrow$

CITIES \rightarrow

• City provides data across 5 categories to generate score:

- Energy
- Water
- Waste
- Transportation
- Human Experience

SCORING 1-100



Welcome Guest Log In | Shop

ABOUT US

GET STARTED

ANNUAL REPORTING

STAR CERTIFIED

EDUCATION

NEWS



MEASURE PROGRESS.

IMPROVE YOUR COMMUNITY.

Interested in how the STAR Community Rating SystemTM can help your community become more transparent, accountable, and sustainable? Watch this recorded webinar featuring Mayor Jeri Muoio of West Palm Beach, FL and Geoff Fruin, city manager for Iowa City, IA, and STAR staff to learn more about STAR's programs and services and how communities are using certification to further local sustainability.

WATCH THE WEBINAR

50 CERTIFIED STAR COMMUNITIES REPORT



More than 50 cities and counties have been certified under the STAR Community Rating System!

To celebrate this huge milestone, we put together a report about the first 50 certified communities, lessons learned, and ways

that STAR is helping towns, cities, and counties to become more sustainable, equitable, and resilient.

STAR COMMUNITY Goals & Scoring

Goals

- Built environment
- Climate & energy
- Economy & jobs
- Education, arts, community
- Equity & empowerment
- Health & safety
- Natural systems



Certified 5-STAR Community (600+ points)

Certified 4-STAR Community (400-599 points)

Certified 3-STAR Community (200-399 points)

STAR COMMUNITY

StarCommunities.org

Focus	Criteria	Procedure	Cost
Local governments	Rating system, no cost	1-time, point- based rating;	\$3,000 cert; \$1,000/yr
		also annual indicator reporting	reporting

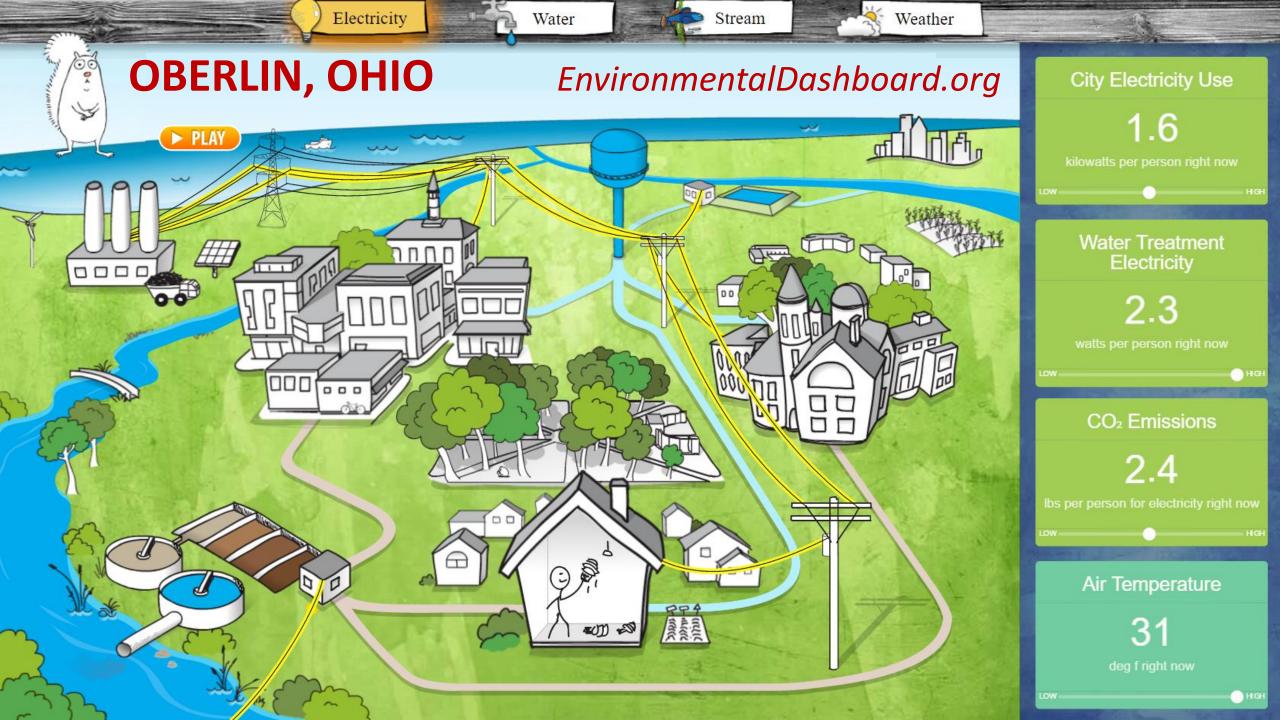
How STAR COMMUNITY Moves the Needle

- Dedicated to local government sustainability leadership
- Comprehensive, rigorous, standards
- Monitored outcomes



Contact tool providers for complete/latest info





Tool Selection Guidance



- 1. Scale, scope, criteria
- 2. Intended users
- 3. Budget
- 4. Others' experiences
- 5. Tool efficiency
- 6. Alignment with your goals

Tool efficiency = output benefit / input effort



Considerations in Selecting an Urban Sustainability Rating Tool

TransformativeTools.org

1. Country & Language

In what country is the user located, and what language is required?

2. Type and Scale of Rating

What scale and type of built or social environment will be rated? Development projects, neighborhoods, or entire cities? Existing or planned areas? Comprehensive ratings, or by major component, such as

7. Timeframe

How much time is required to complete a rating? Hours, months, or years?

8. Costs

What are the tool provider fees for a rating? In addition to provider fees, what are the labor and other expenses incurred by a user to complete the rating process? Are there ongoing costs to maintain a rating?

11. Tool Provider & User Support

What type of organization provides a rating tool, and what is its history with such tools? Are staff or other support services available to users? Does the provider offer tool training? A tool-related credential?

12. International Standards

If a rating tool offers formal certification, does it conform to applicable International Standard Organization (ISO) standards for

Recapped Learning Objectives



- Understand the value of urban sustainability appraisal
- Recognize the qualities of an appraisal tool
- Be aware of major U.S. tools
- Know how to select a best-fit tool

Leverage the Tools, Move the Needle

- Use them to engage stakeholders, collaborate, and lead
- Use them to manage by measurement, and see economic, social, and environmental gains *accelerate*





TransformativeTools.org

Tools Registry

Questions?

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Eliot Allen

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