

THE SUSTAINABLE SITES INITIATIVE™



www.sustainablesites.org

An Overview

presented by

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THE SUSTAINABLE SITES INITIATIVE™

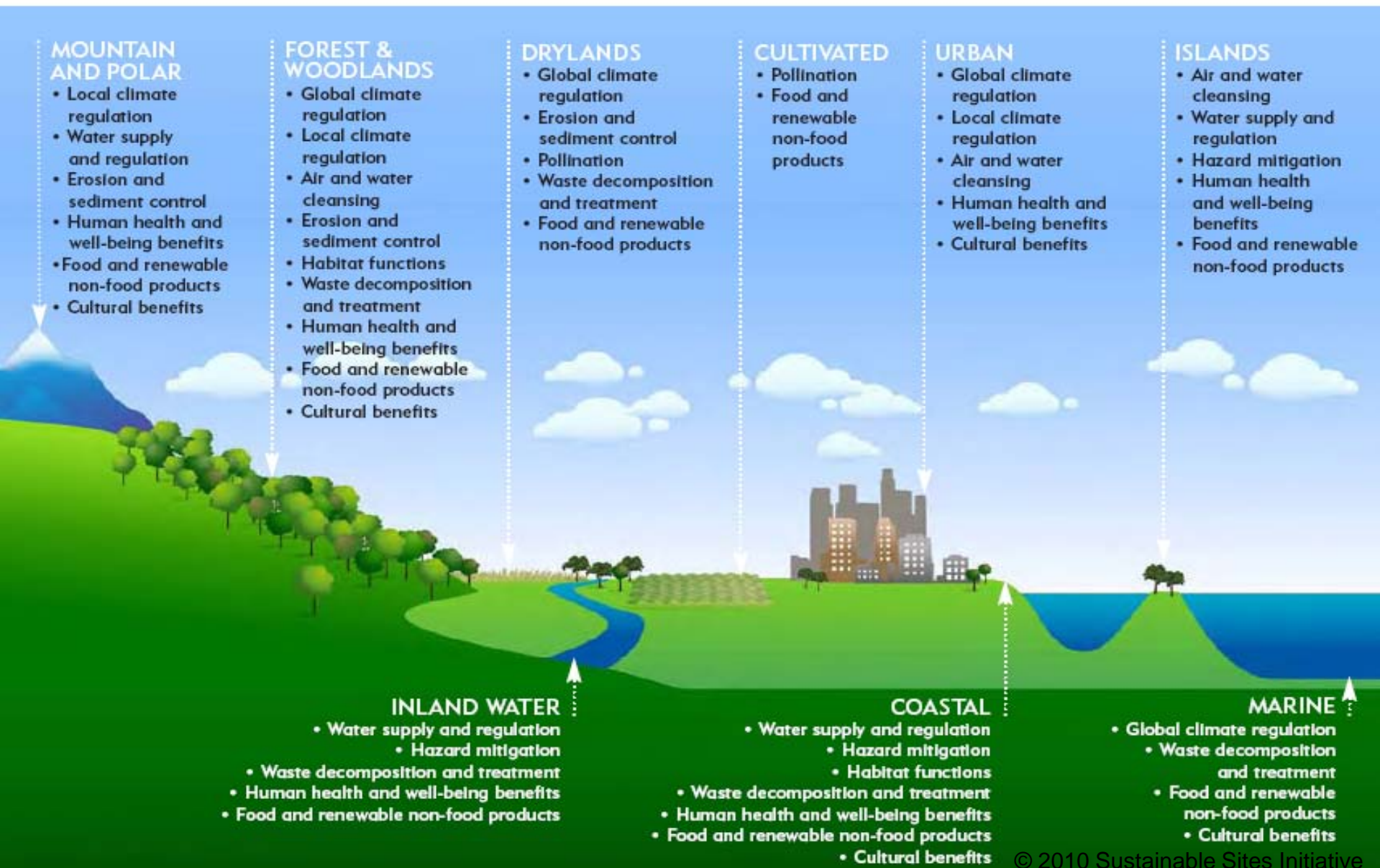
An interdisciplinary effort to create voluntary national guidelines and a rating system for sustainable land design, construction and maintenance practices for landscapes of all types, with or without buildings

SITES is similar to LEED™ for green buildings, but focused on site and landscape best practices.



Framework: protect and regenerate ecosystem services

nature as model, measure, and mentor



Sustainable Sites Initiative

Guiding Principles

- Do no harm
- Use the precautionary principle
- Design with nature and culture
- Use a decision-making hierarchy of preservation, restoration and regeneration
- Provide regenerative systems as intergenerational equity
- Support a living process
- Use a systems thinking approach
- Use a collaborative and ethical approach
- Maintain integrity in leadership and research
- Instill a sense of stewardship



Credit Categories

Similar to LEED™, SITES defines Prerequisites and Credits to rate site design, construction, and operations.

THE SUSTAINABLE SITES INITIATIVE

GUIDELINES AND PERFORMANCE BENCHMARKS 2009

American Society of Landscape Architects
Lady Bird Johnson Wildflower Center
at The University of Texas at Austin
United States Botanic Garden

Site Selection 21 poss. points

Preserve existing resources and repair damaged systems

Pre-Design Assessment and Planning 4 poss. points

Plan for sustainability from the onset of the project

Site Design – Water 44 poss. points

Protect and restore site's processes and systems

Site Design – Soil and Vegetation 51 poss. points

Protect and restore site's processes and systems

Site Design – Materials Selection 36 poss. points

Reuse/recycle and support sustainable production practices

Site Design – Human Health and Well-Being

Build communities and a sense of stewardship 32 poss. points

Construction 21 poss. points

Minimize effects of construction-related activities

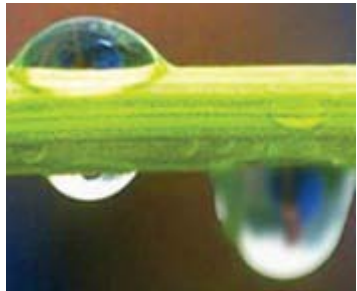
Operations and Maintenance 23 poss. points

Maintain the site for long-term sustainability

Monitoring and Innovation 18 poss. points

Reward exceptional performance

Site Design – Soils and Vegetation



Site Design—Soil and Vegetation

51 possible points

Protect and restore processes and systems associated with a site's soil and vegetation

Prerequisite 4.1: Control and manage known invasive plants found on site

Prerequisite 4.2: Use appropriate, non-invasive plants

Prerequisite 4.3: Create a soil management plan

Credit 4.4: Minimize soil disturbance in design and construction (6 points)

Credit 4.5: Preserve all vegetation designated as special status (5 points)

Credit 4.6: Preserve or restore appropriate plant biomass on site (3–8 points)

Credit 4.7: Use native plants (1–4 points)

Credit 4.8: Preserve plant communities native to the ecoregion (2–6 points)

Credit 4.9: Restore plant communities native to the ecoregion (1–5 points)

Credit 4.10: Use vegetation to minimize building heating requirements (2–4 points)

Credit 4.11: Use vegetation to minimize building cooling requirements (2–5 points)

Credit 4.12: Reduce urban heat island effects (3–5 points)

Credit 4.13: Reduce the risk of catastrophic wildfire (3 points)

Sustainable Sites Guidelines

Project Applications

- parks, trails, campgrounds
- industrial and office parks
- university & medical
- **govt. & military facilities**
(SITES-based Federal guidelines to be released soon)
- conservation easements
- botanical gardens
- residential sites
- streetscapes & plazas



SITES Pilot Program 2010-2012

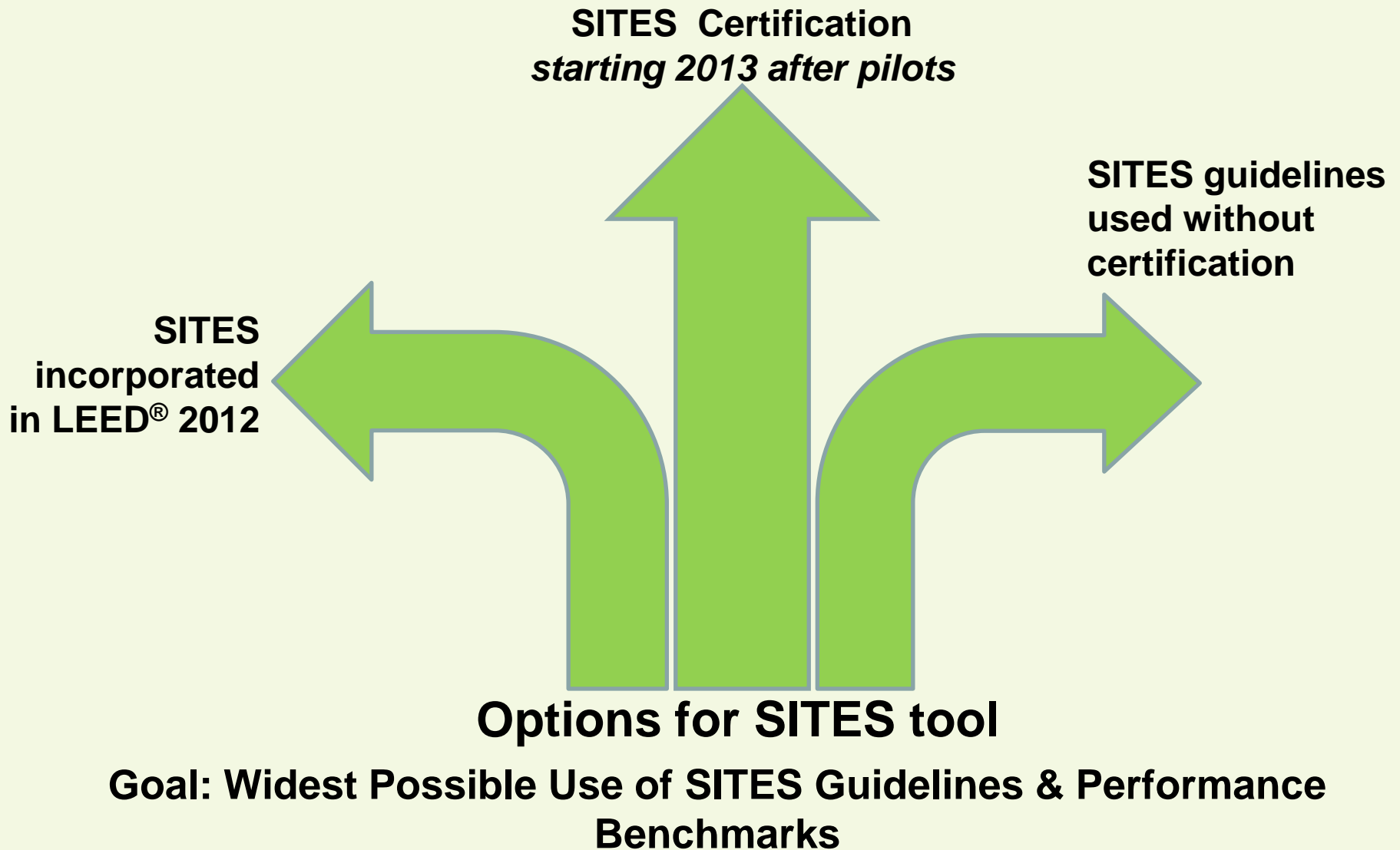
- 162 Registered Pilot Projects
- Range of project types and sizes, geographic diversity
- Certified Pilot Projects to inform Reference Guide



MITHÜN

High Point, Seattle, Washington

SITES Options



How can I learn more about Sustainable Sites?

The website! www.sustainablesites.org



- Background
- Case studies
- Guidelines (rating system)
- Pilot projects
- *and more!*

THE SUSTAINABLE SITES INITIATIVE™

- HOME
- ABOUT US
- AREA OF FOCUS
- PILOT PROJECTS
- GUIDELINES
- CONTACT

The Sustainable Sites Initiative™ (SITES™) is an **interdisciplinary effort** by the American Society of Landscape Architects, the Lady Bird Johnson Wildflower Center at The University of Texas at Austin and the United States Botanic Garden to create **voluntary national guidelines and performance benchmarks** for **sustainable land design, construction and maintenance** practices.

[Just launched! Take our survey on SITES credentialing and certification \(closes November 2, 2011\).](#)

- Overview
- 2009 Rating System
- Case Studies



Sustainable Facts >>>

Compaction, caused by excessive foot or hoof traffic or use of heavy machinery during construction, damages soil structure and reduces infiltration rates, which increases runoff volume and flooding.

SUSTAINABLE SITES CASE STUDY: >>> Chestnut Creek Restoration Project

The Chestnut Creek Restoration project is a small stream-side renovation project that sits behind the central parking area of the Town Hall in the Town of Neversink, New York. Chestnut Creek is an environmentally sensitive stream corridor w...

[Learn more](#)



Jump to the Index of Prerequisites and Credits. You may then click on the list to view a particular item.

THE SUSTAINABLE SITES INITIATIVE™



GUIDELINES AND PERFORMANCE BENCHMARKS

INDEX OF PREREQUISITES AND CREDITS

1. Site Selection	21 possible points	
Select locations to preserve existing resources and repair damaged systems		
Prerequisite 1.1: Limit development of soils designated as prime farmland, unique farmland, and farmland of statewide importance		15
Prerequisite 1.2: Protect floodplain functions		19
Prerequisite 1.3: Preserve wetlands		22
Prerequisite 1.4: Preserve threatened or endangered species and their habitats		24
Credit 1.5: Select brownfields or greyfields for redevelopment (5–10 points)		26
Credit 1.6: Select sites within existing communities (6 points)		28
Credit 1.7: Select sites that encourage non-motorized transportation and use of public transit (5 points)		30
2. Pre-Design Assessment and Planning	4 possible points	
Plan for sustainability from the onset of the project		
Prerequisite 2.1: Conduct a pre-design site assessment and explore opportunities for site sustainability		33
Prerequisite 2.2: Use an integrated site development process		44
Credit 2.3: Engage users and other stakeholders in site design (4 points)		46

Each credit or prerequisite includes:

- Credit Intent & Benefits
- Requirements
- Submittal Documentation
- Potential Technologies and Strategies
- Links to other Credits
- Resources

Learn more at
www.sustainablesites.org

Credit 3.4

2-5 Points

Rehabilitate lost streams, wetlands, and shorelines

Intent

Rehabilitate ecologically degraded shorelines that have been bulkheaded, or

Requirement:

The requirements have been articulated in a clear, bulleted, and

• 2 points:

- Option 1: channel conditions. Rehabilitate water quality.
- OR
- Option 2: must provide

• 3 points:

- Option 3: boundary provide
- OR
- Option 4: must provide

• 5 points:

- Option 5: boundary provide
- OR
- Option 6: must provide

Submittal

Submit design demonstration documents. Provide photographs of the stream

Credit 3.4

Credit 4.6

3-8 Points

Preserve or restore appropriate plant biomass on site

Intent

Maintain or establish regionally appropriate vegetative biomass to support the ecosystem service benefits provided by vegetation on site.

Requirements

Preserve or restore vegetative biomass on site to a level appropriate to the site's region. See the Calculation Guidelines section below to determine applicable point values.

Submittal documentation

Provide calculations for the Existing Site BDI (biomass density index) and Planned Site BDI, and provide a site map/aerial photographs, and site plans to demonstrate existing and planned site conditions (using estimates of cover within 10 years of installation).

Potential technologies and strategies

On greenfield sites, carefully design the site to minimize disruption to existing appropriate vegetation. Use trees, green roofs, or vegetated structures (e.g., trellises) to cover non-vegetated surfaces for the site. To support healthy vegetation, use vegetation-based methods to achieve stormwater management goals for the site. Provide adequate soil volume to sustain root development (i.e., for trees, provide at least 2 cubic feet of plant-usable rooting soil for each square foot of mature tree canopy, with a minimum depth of 2 feet and a maximum depth of 4 feet).

Calculation guidelines

Determine the BDI for existing and planned conditions for the site, using the guidelines below. BDI can be thought of as the density of plant layers covering the ground. Existing BDI is calculated for the site as it stands prior to site design (as identified in the site assessment, see Prerequisite 2.1: Conduct a pre-design site assessment and explore opportunities for site sustainability). Planned BDI is calculated for the site as designed and anticipated within 10 years of vegetation installation.

Economic and social benefits:

Vegetation on a site is associated with increased benefits such as pollutant interception, water absorption, greenhouse gas regulation, and microclimate regulation. The benefits provided by vegetation are tied to plant processes, including photosynthesis, evapotranspiration, respiration, and mineral uptake from the air and ground. The degree to which these processes occur depends on the amount of green matter on a site.

Credit 4.6

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For more information, please visit:
www.sustainablesites.org

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www.sustainablesites.org/email
or email

info@sustainablesites.org

