Introducing

THE SUSTAINABLE SITES INITIATIVE™

Tim Smith, ASLA Stewardship Committee

Greg Koch, Stone Brewing Co.

Marney Jensen, ASLA, Schmidt Design Group

Ann Hunter, Hunter Industries

SAN DIEGO AMERICAN SOCIETY OF LANDSCAPE ARCHITECTS CHAPTER

STONE BREWING World Bistro and Gardens

SCHMIDT DESIGN GROUP, INC.

Hunter® FXLuminaire

Introducing

THE SUSTAINABLE SITES INITIATIVE™

Agenda

1. Introduction to Sustainability and Stone Brewing Co.
2. Overview of the Sustainable SITES Initiative and credits achieved at Stone Brewing World Bistro & Gardens
3. Hunter Industries Zero Waste Manufacturing and Sustainability in the Community
4. Session Follow-up / Q&A

2012 SITES CERTIFIED
SUSTAINABLE SITES INITIATIVE™

Stone Brewing World Bistro & Gardens
Escondido, CA

SCHMIDT DESIGN GROUP, INC.

Introducing

THE SUSTAINABLE SITES INITIATIVE™

An overview of SITES

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

AMERICAN SOCIETY OF LANDSCAPE ARCHITECTS
ASLA Library & Education Advocacy Fund

Lady Bird Johnson Wildflowercenter
THE UNIVERSITY OF TEXAS AT AUSTIN

United States Botanic Garden

Success of Green Buildings

LEED (Leadership in Energy and Environmental Design

- **As of 2010, green building accounted for 25% of all new construction activity**
- **The green building market size is expected to reach $135 billion by 2015**
- **Over 160,000 professionals hold LEED credentials**

Source: McGraw-Hill Construction (2010). Green Outlook 2011: Green Trends Driving Growth

Certified LEED Platinum

Building B Biodesign Institute at Arizona State University, Tempe

Other Sustainable Metric Programs

INVEST
ECONOMIC • SOCIAL • ENVIRONMENTAL

Greenroads™

SUSTAINABILITY TRACKING, ASSESSMENT & RATING SYSTEM
CHARTER
STARS
PARTICIPANT
AASHE

energy
ENERGY STAR

THE ENVISION™ RATING SYSTEM

THE ENVISION™ RATING SYSTEM

INSTITUTE FOR SUSTAINABLE INFRASTRUCTURE
I S I

ZOFNASS PROGRAM FOR SUSTAINABLE INFRASTRUCTURE
Graduate School of Design Harvard University

Envision was developed in joint collaboration between the Zofnass Program for Sustainable Infrastructure at the Harvard University Graduate School of Design and the Institute for Sustainable Infrastructure.

ASLA

15,700

			Total
28,500	141,200	300,000	469,700
APWA	ASCE	ACEC	

The Institute for Sustainable Infrastructure is a not-for-profit education and research organization founded by the American Public Works Association, the American Council of Engineering Companies and the American Society of Civil Engineers.

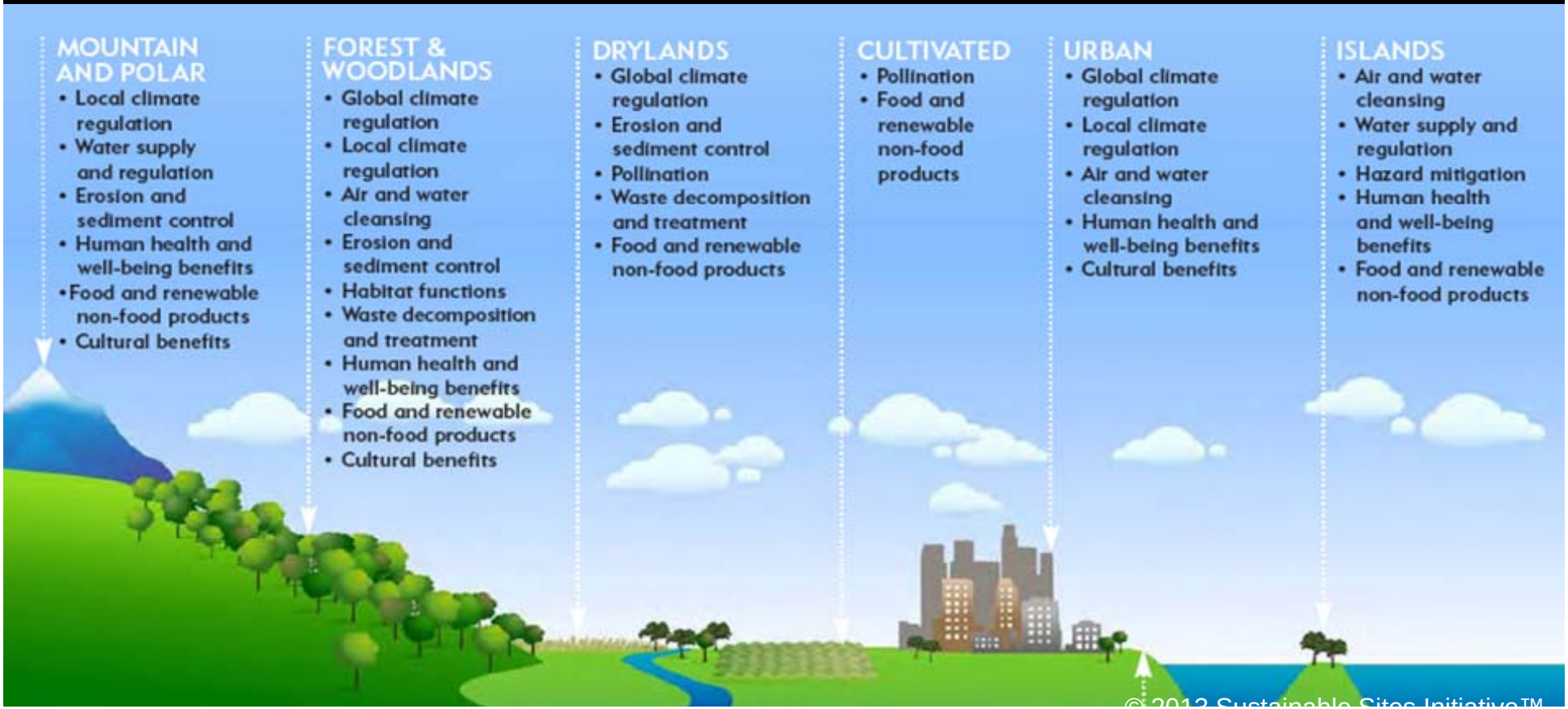
SITES Framework: *Ecosystem Services*

Benefits provided by natural systems that support our lives and are often considered "free" and not a part of conventional accounting methods

In 1997, the economic value these were estimated to be worth $33 trillion per year (twice the global GNP)

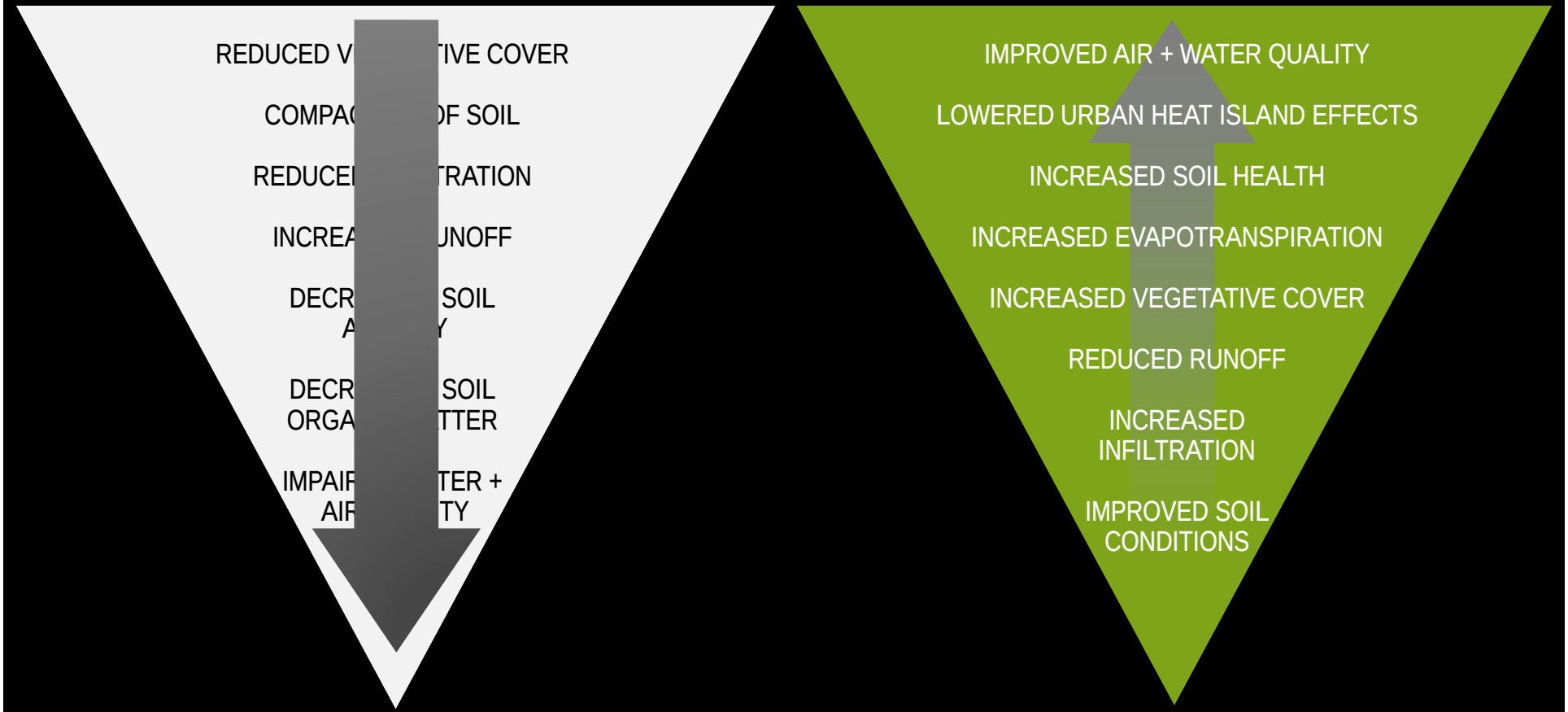
Framework: *Ecosystem Services*

- Regulate global and local climate
- Detoxify and cleanse air, soil and water
- Regulate water supply
- Control erosion and retain sediment
- Provide refuge and nursery habitat / pollination services
- Decompose, treat, and re-use waste
- Provide human health and well-being benefits
- Provide food and non-food products
- Provide cultural, educational and aesthetic values
- Mitigate potential hazards



Shift of Values

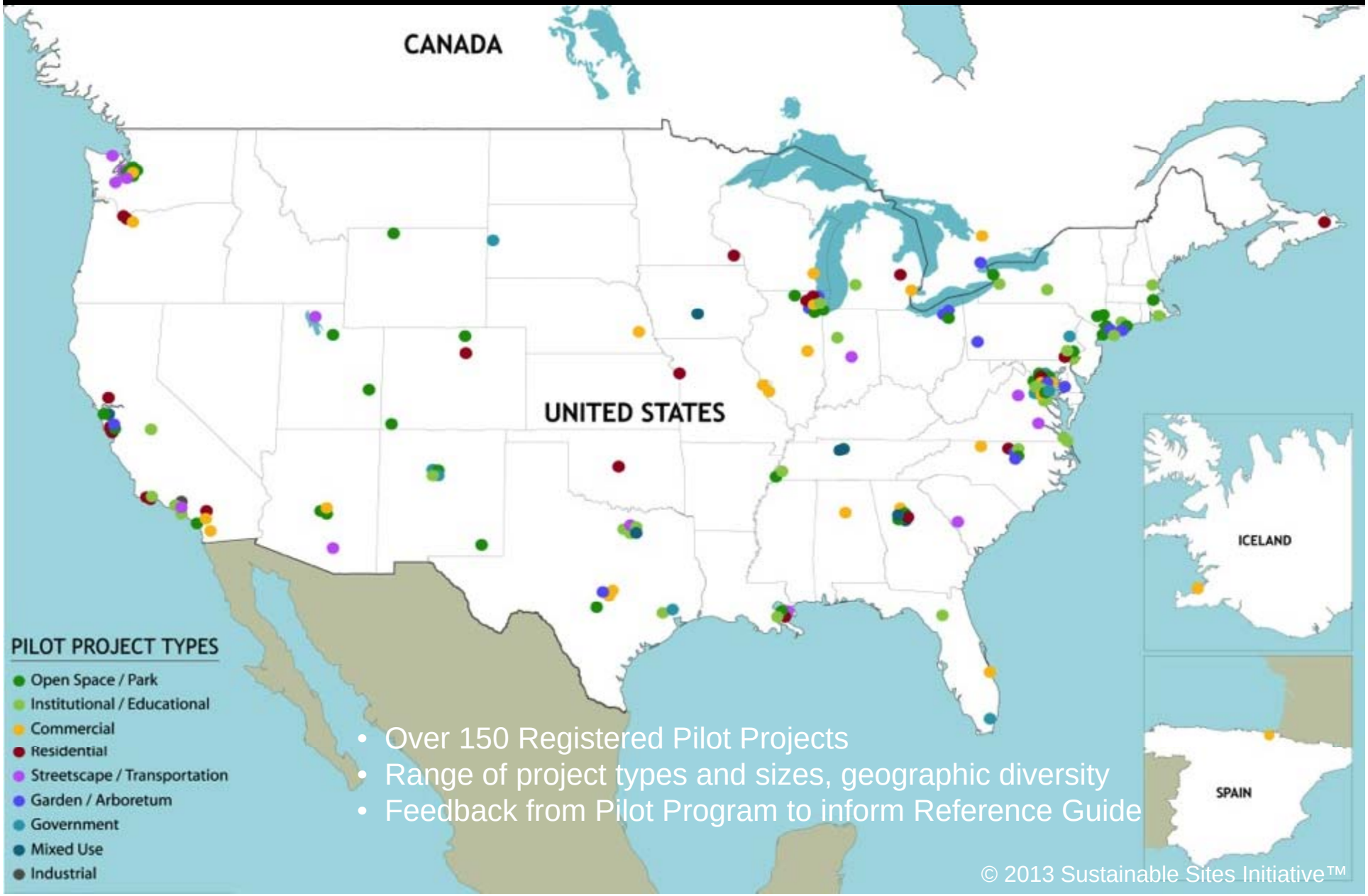
SITES GOALS: **Conservation to Regeneration through High Performance Landscapes**



Project Applications

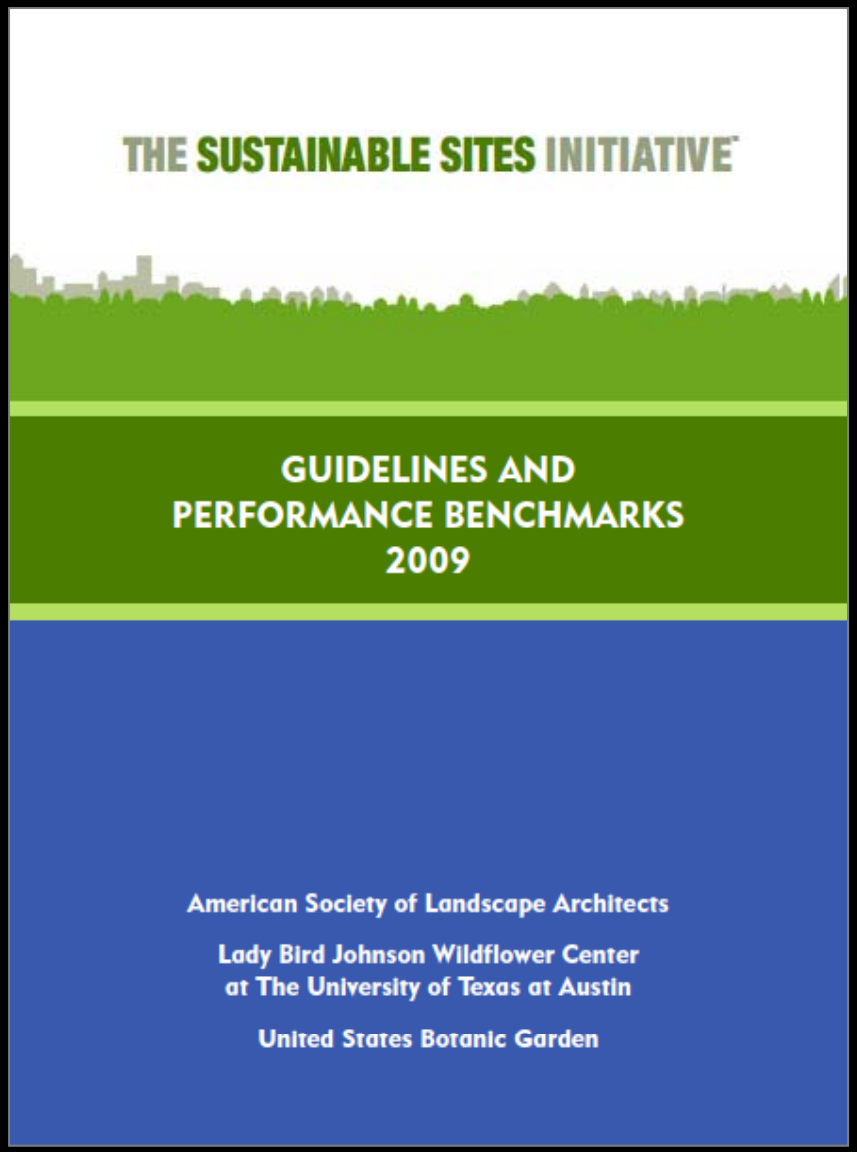
- parks, trails, campgrounds
- industrial & office parks
- government & medical complexes
- botanical gardens
- university campuses
- residential sites
- streetscapes & plazas

SITES Pilot Program



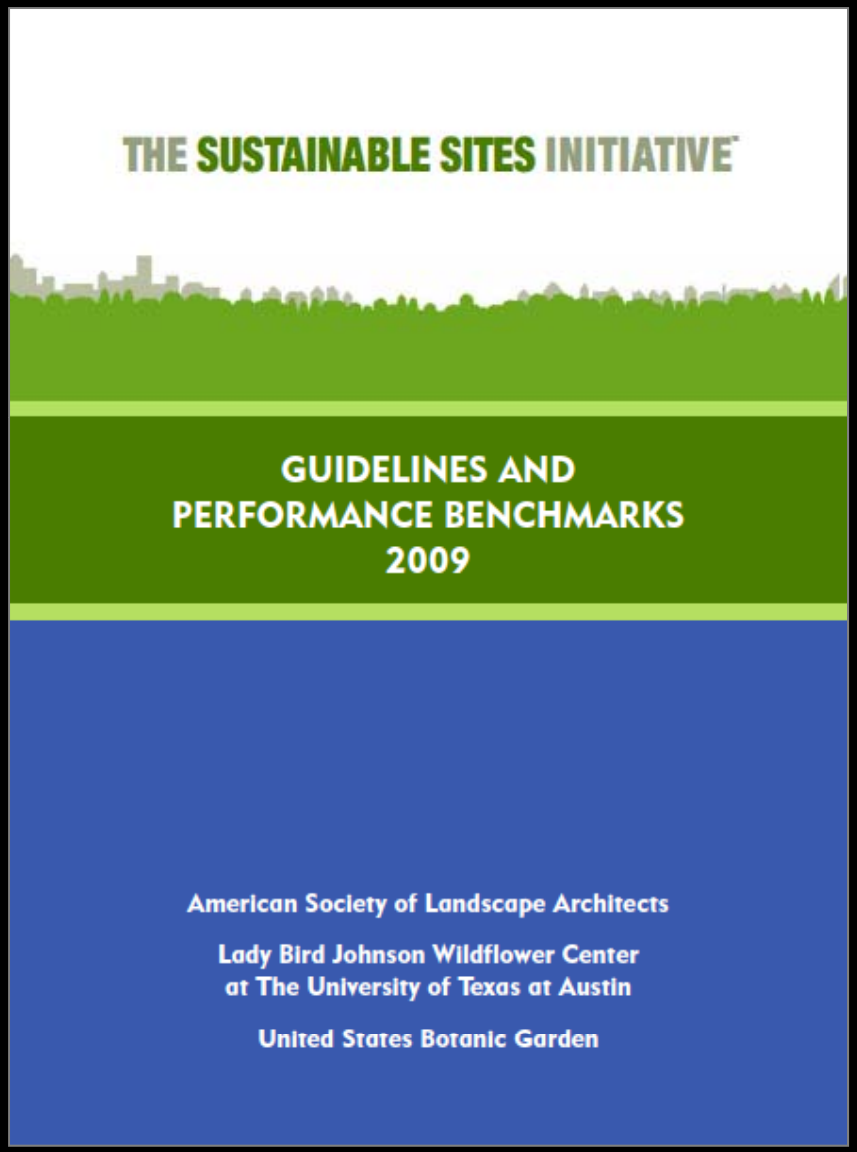
- Over 150 Registered Pilot Projects
- Range of project types and sizes, geographic diversity
- Feedback from Pilot Program to inform Reference Guide

SITES – 2009 Rating System: Guidelines



- **Measure a site's sustainability within the context of ecosystem services**
- **250 point scale**
- **Performance based benchmarks**
- **Multiple point levels for many credits**
- **4 levels of Pilot certification**
  - Prerequisites plus:
    - ★ = 100 points (40%)
    - ★★ = 125 points (50%)
    - ★★★ = 150 points (60%)
    - ★★★★ = 200 points (80%)
- **Note, this will be updated and replaced by the forthcoming *2013 Rating System***

SITES – 2009 Rating System: Categories



Site Selection
Preserve existing resources & repair damaged systems

Pre-Design Assessment and Planning
Plan for sustainability from the onset of the project

Site Design – Water
Protect and restore site's processes and systems

Site Design – Soil and Vegetation
Protect and restore site's processes and systems

Site Design – Materials Selection
Reuse/recycle & support sustainable production practices

Site Design – Human Health and Well-Being
Build communities and a sense of stewardship

Construction
Minimize effects of construction-related activities

Operations and Maintenance
Maintain the site for long-term sustainability

Monitoring and Innovation
Reward exceptional performance

SITES – 2009 Rating System: Credit Structure

Each Prerequisite and Credit includes:

- **Credit Intent**
- **Requirements**
- **Submittal Documentation**
- **Potential Technologies and Strategies**
- **Links to Other Credits**
- **Resources**

SITES

PROJECT 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	Summer 2013
Open Enrollment / Education + Training	Fall 2013
Professional Credentialing Program	Anticipated in 2014

September 2012

SUSTAINABLE **SITES** INITIATIVE™

HEREBY CERTIFIES

STONE BREWING WORLD BISTRO & GARDENS

ESCONDIDO, CALIFORNIA

HAS SUCCESSFULLY MET THE SUSTAINABLE SITES INITIATIVE CRITERIA REQUIRED UNDER
THE SUSTAINABLE SITES INITIATIVE: GUIDELINES AND PERFORMANCE BENCHMARKS 2009
TO EARN A **ONE STAR CERTIFICATION** RATING.

2012 SITES CERTIFIED

Nancy C. Somerville, *Executive Director,* American Society of Landscape Architects

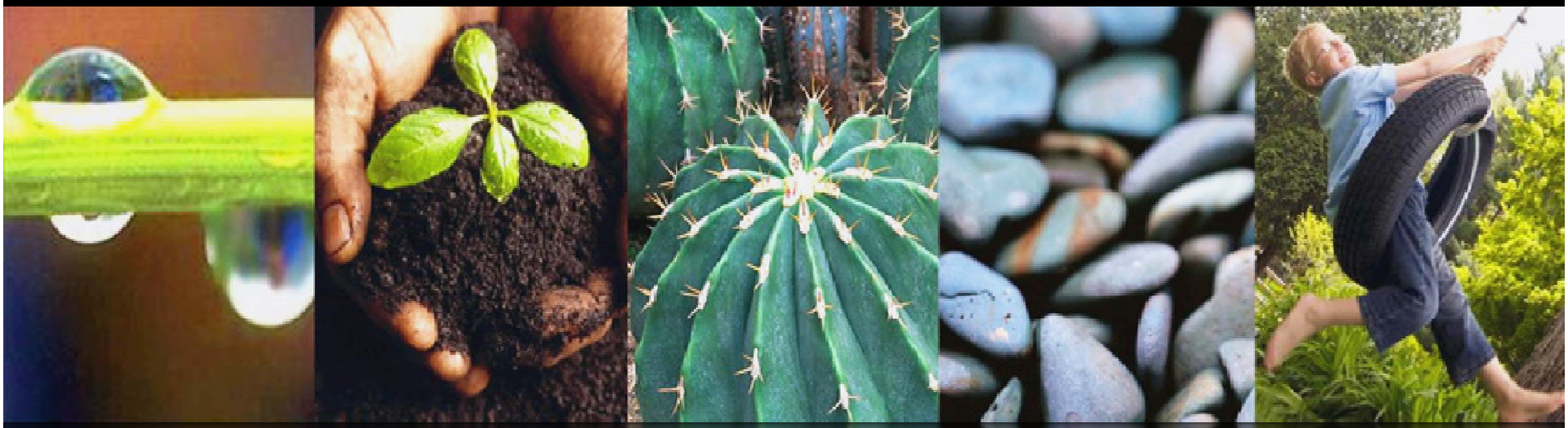
Susan Rieff, *Executive Director,* Lady Bird Johnson Wildflower Center at The University of Texas at Austin

Holly Shimizu, *Executive Director,* United States Botanic Garden

“Stone Brewing World Bistro & Gardens is a fantastic test case for the Pilot Program and a great example of SITES implementation for a commercial project that gives back to the community.”

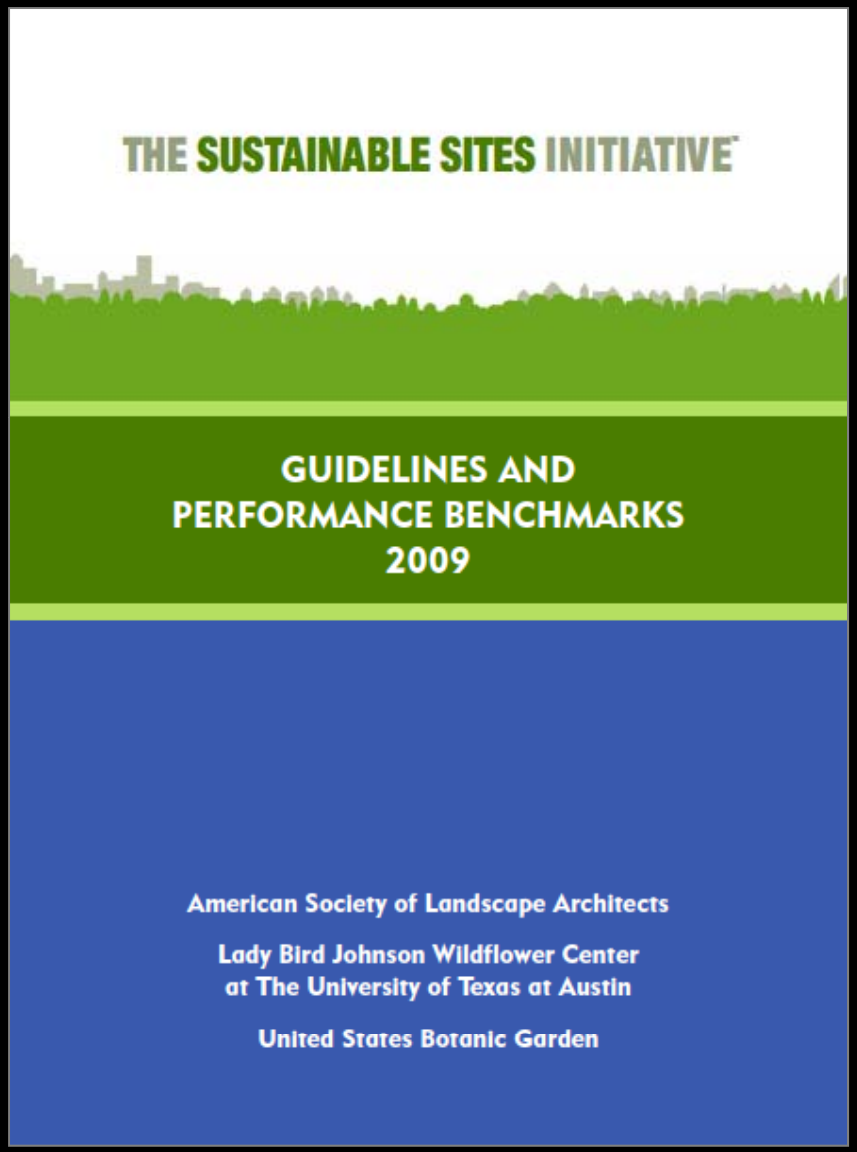
-SITES Pilot Project Final Review, August 2012

SITES – Areas of Focus



- Water
- Soils
- Vegetation
- Materials
- Human Health + Well- being

SITES – 2009 Rating System: Categories



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Construction
Minimize effects of construction-related activities

Operations and Maintenance
Maintain the site for long-term sustainability

Monitoring and Innovation
Reward exceptional performance

Site Selection

Guidelines & Performance Benchmarks 2009

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

Prerequisite 1.2: Protect floodplain functions

Prerequisite 1.3: Preserve wetlands

Prerequisite 1.4: Preserve threatened or endangered species and their habitats

Credit 1.5: Select brownfields or greyfields for redevelopment (5-10 points)

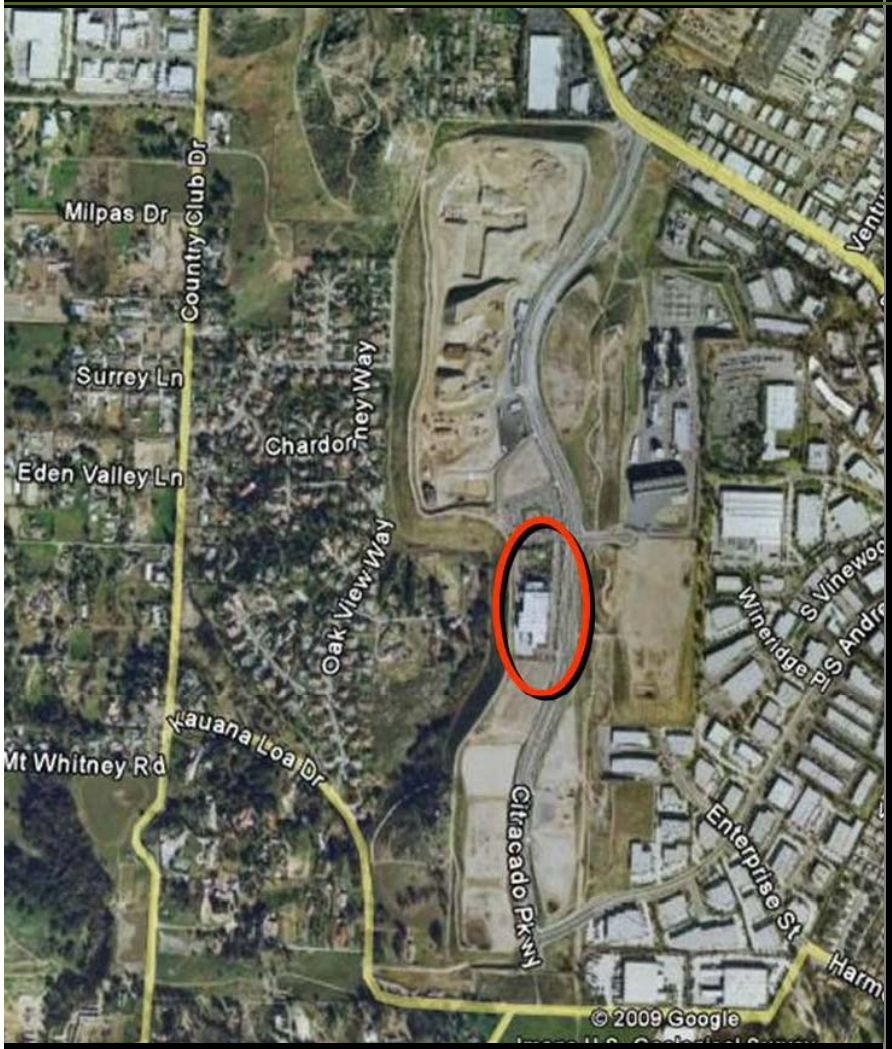
Credit 1.6: Select sites within existing communities (6 points)

Credit 1.7: Select sites that encourage non-motorized transportation and use of public transit (5 points)

Site Selection

Credit 1.5 & 1.7

Select brownfields or greyfields for redevelopment



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- During the site selection process, give preference to previously developed or brownfield sites
- Coordinate site development plans with remediation activity and use of existing infrastructure and materials, as appropriate
- 5 points for selecting greyfield
- 5 points for selecting sites that encourage non-motorized transportation and use of public transit.

Pre-Design Assessment

Guidelines & Performance Benchmarks 2009

4 possible points

Plan for sustainability from the onset of the project

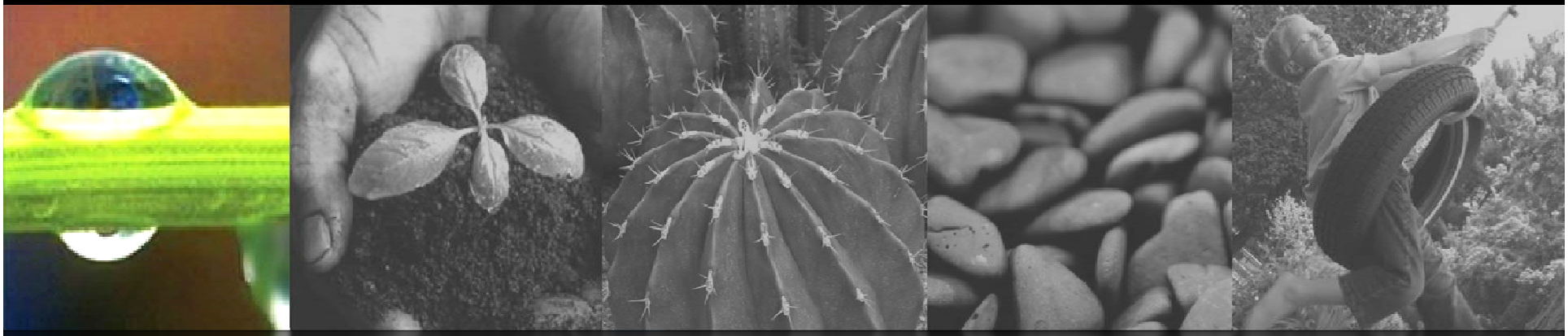
Prerequisite 2.1: Conduct a pre-design site assessment and explore opportunities for site sustainability

Prerequisite 2.2: Use an integrated site development process

Credit 2.3: Engage users and other stakeholders in site design (4 points)

Site Design – Water

Guidelines & Performance Benchmarks 2009



44 possible points

Protect and restore processes and systems associated with a site's hydrology

Prerequisite 3.1: Reduce potable water use for landscape irrigation by 50 percent from established baseline

Credit 3.2: Reduce potable water use for landscape irrigation by 75 percent or more from established baseline (2-5 points)

Credit 3.3: Protect and restore riparian, wetland, and shoreline buffers (3-8 points)

Credit 3.4: Rehabilitate lost streams, wetlands, and shorelines (2-5 points)

Credit 3.5: Manage stormwater on site (5-10 points)

Credit 3.6: Protect and enhance on-site water resources and receiving water quality (3-9 points)

Credit 3.7: Design rainwater/stormwater features to provide a landscape amenity (1-3 points)

Credit 3.8: Maintain water features to conserve water and other resources (1-4 points)

Site Design – Water

Credit 3.2

Reduce potable water use

Stone Brewing World Bistro & Gardens, Escondido, CA

- 2 Points - Reduce potable water use for landscape irrigation by 75 percent or more from established baseline
- 3 Points – Use no potable water, or other natural surface or subsurface water resources, for landscape irrigation beyond the establishment period. Coordinate site development plans with remediation activity and use of existing infrastructure and materials, as appropriate
- 5 Points - Use no potable water for landscape irrigation after the establishment period.

Site Design – Water

Credit 3.5

Manage Stormwater on Site

Stone Brewing World Bistro & Gardens, Escondido, CA

- 5 Points – Achieve 30 percent improvement in water storage capacity .
- 7 Points – Achieve 60 percent improvement in water storage capacity.
- 10 Points - Achieve 90 percent improvement in water storage capacity.

Site Design – Water

Credit 3.7

Design rainwater / stormwater features to provide a landscape amenity

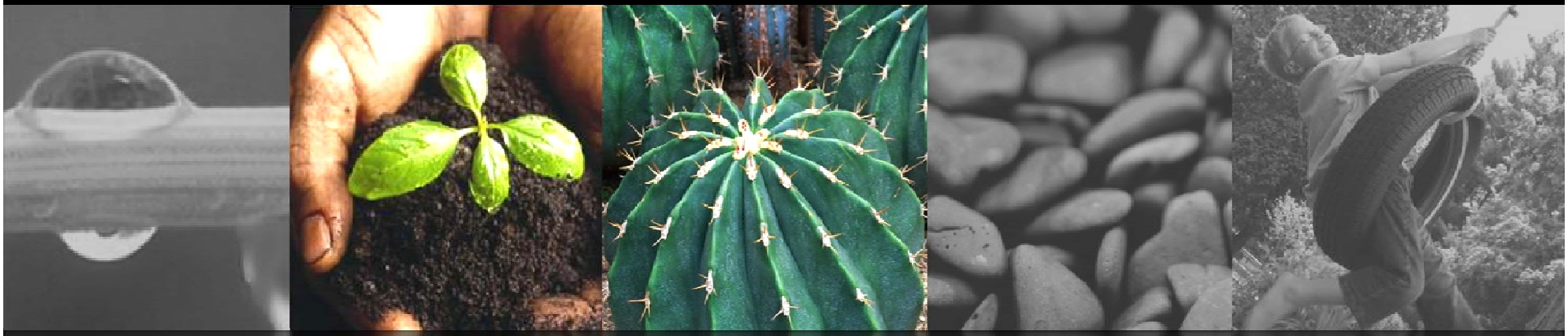
Stone Brewing World Bistro & Gardens, Escondido, CA

- Make rainwater / stormwater management features visible, usable, and beautiful
- Document that rainwater falling on site is treated as an amenity through the way it is received, conveyed, and managed on site, and made accessible to site users
- Keep water healthy and clean with natural, chemical-free techniques

2 points

Site Design – Soil and Vegetation

Guidelines & Performance Benchmarks 2009



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)

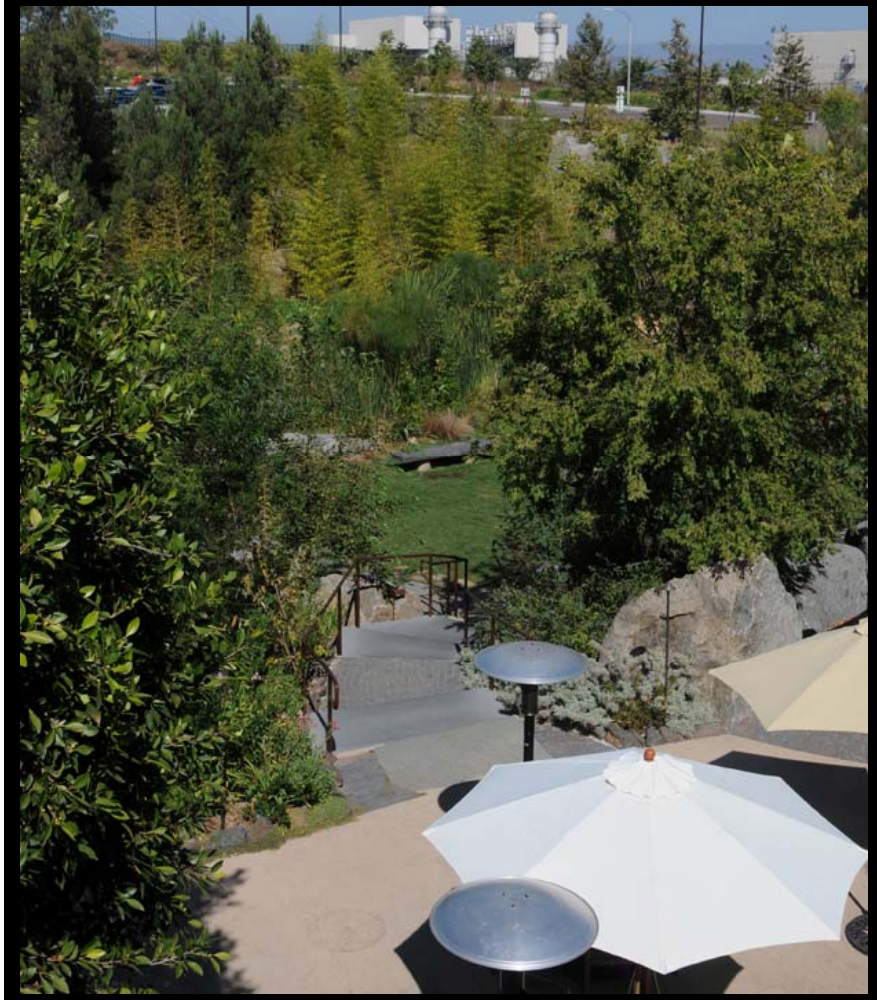
Credit 4.12: Reduce urban heat island effects (3-5 points)

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

Site Design – Soil and Vegetation

Credit 4.6

Preserve or restore appropriate plant biomass on site



Stone Brewing World Bistro & Gardens, Escondido, CA

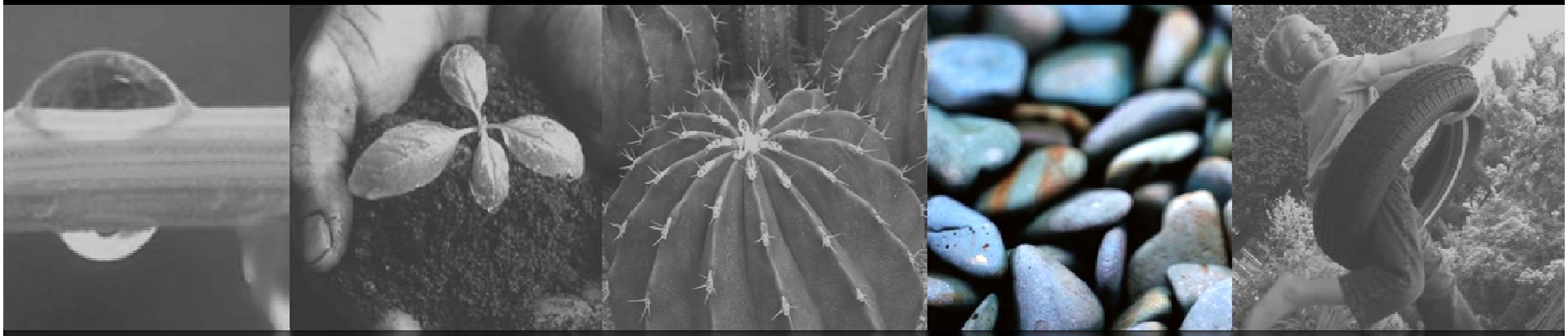
Biomass Density Index:

- Existing site biomass 0 – 0.5
- Planning Site BDI 1.5 – 2.0

8 points

Site Design – Materials Selection

Guidelines & Performance 2009 Benchmarks



36 possible points

Reuse/recycle existing materials and support sustainable production practices

Prerequisite 5.1: Eliminate the use of wood from threatened tree species

Credit 5.2: Maintain on-site structures, hardscape, and landscape amenities (1-4 points)

Credit 5.3: Design for deconstruction and disassembly (1-3 points)

Credit 5.4: Reuse salvaged materials and plants (2-4 points)

Credit 5.5: Use recycled content materials (2-4 points)

Credit 5.6: Use certified wood (1-4 points)

Credit 5.7: Use regional materials (2-6 points)

Credit 5.8: Use adhesives, sealants, paints, and coatings with reduced VOC emissions (2 points)

Credit 5.9: Support sustainable practices in plant production (3 points)

Credit 5.10: Support sustainable practices in materials manufacturing (3-6 points)

Site Design – Materials Selection

Credit 5.4

Reuse salvaged materials and plants

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Reuse salvaged materials and appropriate plants to conserve resources and avoid sending useful materials to the landfill

2 points: 10% of all materials (including plants) used on site are salvaged

4 points: 20% of all materials (including plants) used on site are salvaged

Additional 4 points for innovation because 40% of all materials salvaged

Site Design – Materials Selection

Credit 5.7

Use regional materials

Stone Brewing World Bistro & Gardens, Escondido, CA

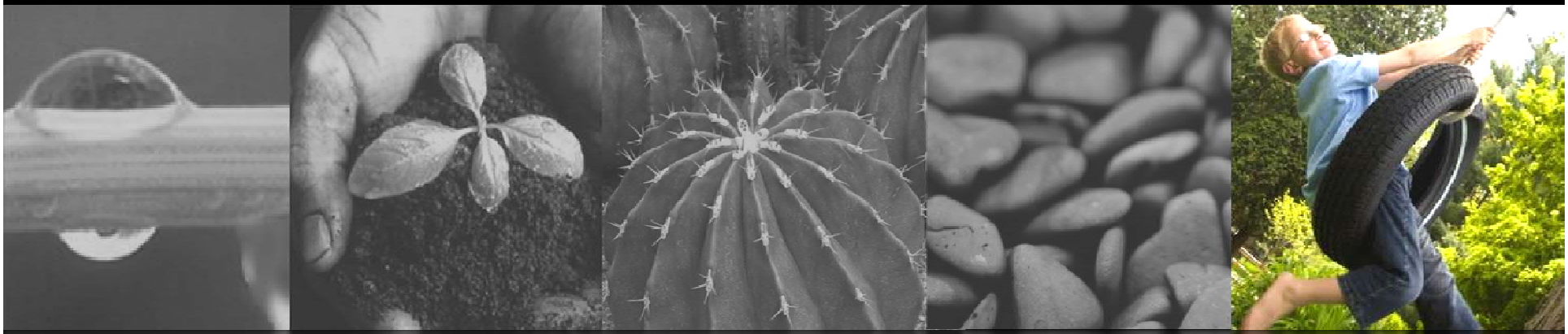
Use materials, plants, and soils that are sourced near the site

- soils and aggregates within 50 miles
- plants within 250 miles
- stone and brick within 50 miles

2 points: 30% sourced regionally
4 points: 60% sourced regionally
6 points: 90% sourced regionally

Site Design – Human Health + Well-Being

Guidelines & Performance 2009 Benchmarks



32 possible points

Build strong communities and a sense of stewardship

Credit 6.1: Promote equitable site development (1-3 points)

Credit 6.2: Promote equitable site use (1-4 points)

Credit 6.3: Promote sustainability awareness and education (2-4 points)

Credit 6.4: Protect and maintain unique cultural and historical places (2-4 points)

Credit 6.5: Provide for optimum site accessibility, safety, and wayfinding (3 points)

Credit 6.6: Provide opportunities for outdoor physical activity (4-5 points)

Credit 6.7: Provide views of vegetation and quiet outdoor spaces for mental restoration (3-4 points)

Credit 6.8: Provide outdoor spaces for social interaction (3 points)

Credit 6.9: Reduce light pollution (2 points)

Site Design – Human Health + Well-Being

Credit 6.8

Provide outdoor spaces for social interaction

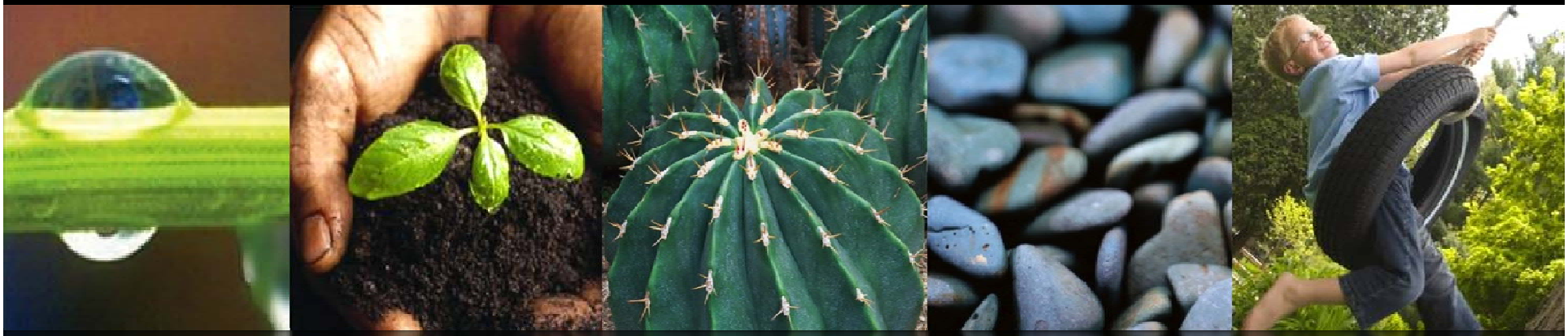
Stone Brewing World Bistro & Gardens, Escondido, CA

- Provide a variety of seating for moderate to large groups.
- Consider microclimate and other site-specific conditions.
- Provide visual and/or physical access to vegetation.
- Provide other amenities, services, or activity spaces.

3 Points

Construction

Guidelines & Performance 2009 Benchmarks



21 possible points

Minimize effects of construction-related activities

Prerequisite 7.1: Control and retain construction pollutants

Prerequisite 7.2: Restore soils disturbed during construction

Credit 7.3: Restore soils disturbed by previous development (2-8 points)

Credit 7.4: Divert construction and demolition materials from disposal (3-5 points)

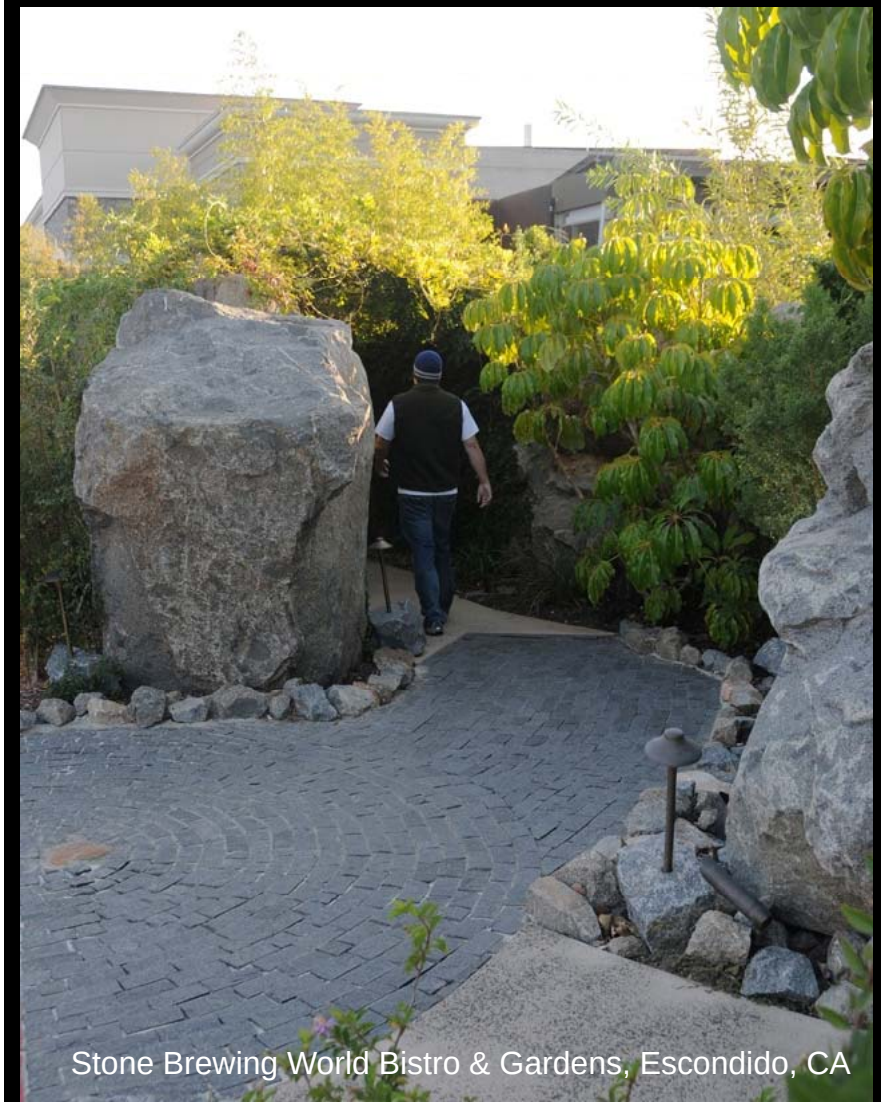
Credit 7.5: Reuse or recycle vegetation, rocks, and soil generated during construction (3-5 points)

Credit 7.6: Minimize generation of greenhouse gas emissions and exposure to localized air pollutants during construction (1-3 points)

Construction

Credit 7.5

Reuse or recycle vegetation, rocks, and soil generated during construction



Stone Brewing World Bistro & Gardens, Escondido, CA

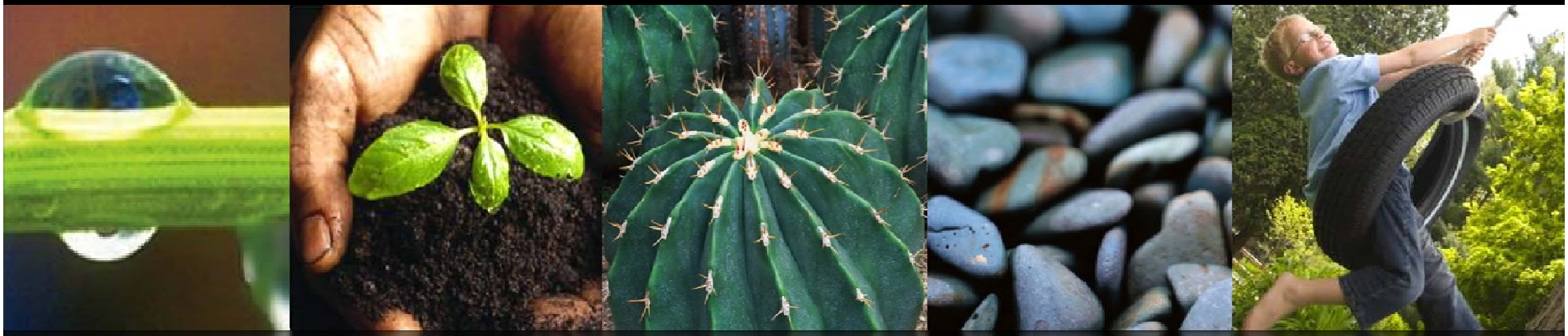
- Soils, mineral/rock waste, and plant material generated during land-clearing

- **3 points**: Reuse 100% within 50 miles
- **5 points**: Reuse 100% on site

- Soils must be reused for comparable to their original function: topsoil for topsoil, etc

Operations and Maintenance

Guidelines & Performance 2009 Benchmarks



23 possible points

Maintain the site for long-term sustainability

Prerequisite 8.1: Plan for sustainable site maintenance

Prerequisite 8.2: Provide for storage and collection of recyclables

Credit 8.3: Recycle organic matter generated during site operations and maintenance (2-6 points)

Credit 8.4: Reduce outdoor energy consumption for all landscape and exterior operations (1-4 points)

Credit 8.5 Use renewable sources for landscape electricity needs (2-3 points)

Credit 8.6: Minimize exposure to environmental tobacco smoke (1-2 points)

Credit 8.7: Minimize generation of greenhouse gases and exposure to localized air pollutants during landscape maintenance activities (1-4 points)

Credit 8.8: Reduce emissions and promote the use of fuel-efficient vehicles (4 points)

Operations and Maintenance

Credit 8.3

Recycle organic matter generated during site operations and maintenance

Stone Brewing World Bistro & Gardens, Escondido, CA

Design for recycling of vegetation trimmings, and where applicable, food waste to generate compost

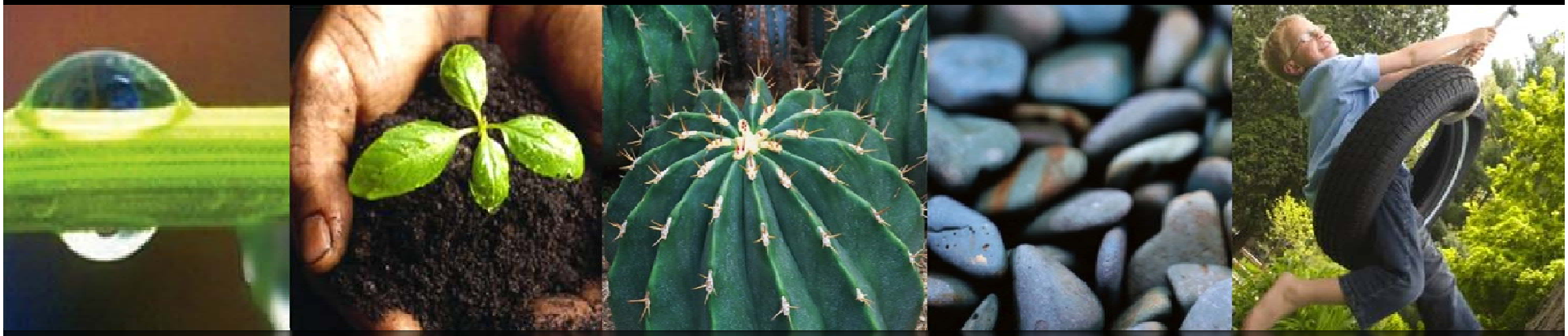
- 2 points: Compost and/or recycle 100% of vegetation trimmings off site within 50 miles.

- 3 points: Compost and/or recycle at least 50% of vegetation trimmings on site.

- 5 points: Compost and/or recycle 100% of vegetation trimmings on site.
- Additional point value: For sites that generate food waste, provide space for on-site collection of compostable organics.

Monitoring and Innovation

Guidelines & Performance 2009 Benchmarks



22 possible points

Reward exceptional performance and improve the body of knowledge on long-term sustainability

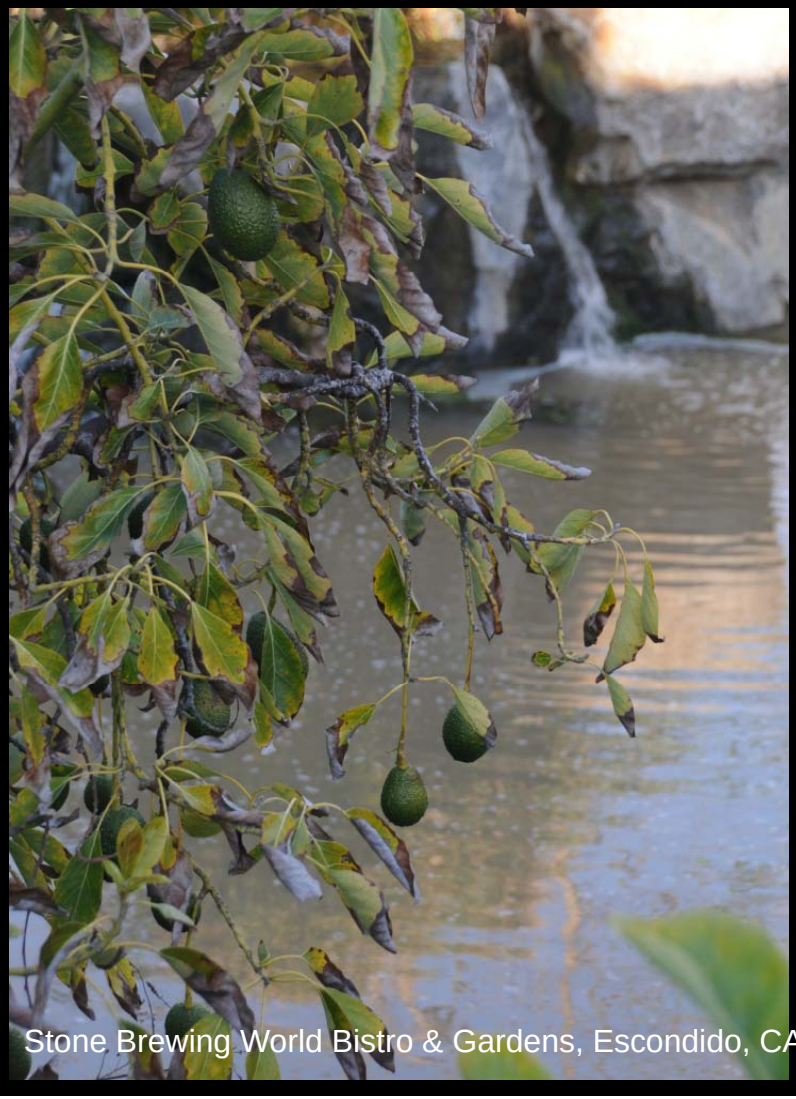
Credit 9.1: Monitor performance of sustainable design practices (10 points)

Credit 9.2: Innovation in site design (4-12 points)

Monitoring and Innovation

Credit 9.2

To encourage and reward innovative sustainable practices not specifically addressed by the SITES Benchmarks



Stone Brewing World Bistro & Gardens, Escondido, CA

- 4 points: Community Programs above and beyond Credit 6.2 requirements (minimum of 15 events a year including charities, farmers markets, and movie nights)

- 4 points: Edible Plants, encouraging local food production and utilizing plants from the garden for the restaurant and brewery.

- 4 points: Exemplary performance for Credit 5.4, by demonstrating that 40% of materials are salvaged.

THE SUSTAINABLE SITES INITIATIVE™

For more information, please visit:

www.sustainablesites.org

Or

asla-sandiego.org/ education/sustainable design

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