

# Sustainable Sites

The logo for Turf, featuring the word "Turf" in a bold, black, sans-serif font. A green grass blade is integrated into the letter 'T'.The logo for Tree Services, featuring the words "Tree Services" in a bold, black, sans-serif font. A small green leaf is above the 'e' in "Services". Below the main text is the tagline "Taking Tree Care to New Heights" in a smaller, italicized font.The logo for DesignBuild, featuring the word "Design" in a black, sans-serif font and "Build" in a bold, orange, sans-serif font. A small orange square is above the 'i' in "Design".The logo for PLOW, featuring the word "PLOW" in a bold, blue, sans-serif font. A registered trademark symbol (®) is to the right of the word.

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Creating eco-friendly landscapes



This South Carolina home, an ASLA 2008 award-winner, features a landscape that mimics the natural environment. During construction, soils were improved and invasive plants were removed. Ongoing maintenance will need to support these actions.

“Sustainable” is a word that should heighten the interest of anyone working in the lawn and landscape maintenance profession. After all, how many times have you come up against a site that requires an inordinate amount of maintenance and still doesn’t look or perform the way it should? How many times have you regretted that it takes so much water or fertilizer or pesticide to keep a particular lawn or landscape thriving?

There may be a number of reasons for this lack of sustainability, but the odds-on favorite is that the landscape wasn’t properly designed in the first place. Either the site is not conducive to its intended use, the wrong mix or grasses or plants was selected for the climate, the soils are not suitable for the plants chosen, etc.



“Sustainable Sites Initiative Guidelines and Performance Benchmarks–Draft 2008” contains guidelines and case studies documenting sustainable practices for designing, building and maintaining landscapes.

To help prevent such situations, the American Society of Landscape Architects ([www.asla.org](http://www.asla.org)), in cooperation with the Lady Bird Johnson Wildflower Center and the United States Botanic Garden, formed the Sustainable Sites initiative ([www.sustainablesites.org](http://www.sustainablesites.org)). The stated goal of the program is to “create voluntary national guidelines and performance benchmarks for sustainable land design, construction and maintenance practices.” This means setting in place a system to help professionals design, build and maintain landscapes in ways that produce both a healthy landscape and a healthy environment.

The effort began with a Sustainable Sites summit back in 1995, and after much discussion and planning, came to fruition with the issuance of the “Sustainable Sites Initiative Guidelines and Performance Benchmarks–Draft 2008,” which details how a landscape can be designed, built and maintained to have a positive impact on the environment, from cleaning the water and air to affecting the global climate and human health. Included are several case studies that demonstrate how this has been done in real-world conditions. Finally, and most importantly, are voluntary guidelines to help those who want to incorporate the environmentally sound principles into their professional work.

While the role of the site design and factors such as plant selection are obviously critical to the long-term sustainability of the landscape, maintenance is also a key piece of the puzzle. “You can’t just design and build a sustainable landscape, you have to operate it in a sustainable manner, as well,” says Nancy Somerville, CEO of ASLA and a key participant in crafting the Sustainable Sites initiative.

Irrigation provides a good example: If a landscape architect has specified low-water-use grasses or plants and the maintenance professional operates the irrigation system in a “traditional” manner, applying more water than the plants need, the sustainability of the landscape could be defeated. Instead of water conservation, water is being wasted. Further, the health of the plants may suffer.

On the topic of water use, there are proactive maintenance practices that can

conserve water, Somerville says, "Installing rain barrels and capturing excess stormwater and using that for irrigation can help to conserve water over time. And, it's also critical to be sure that irrigation, where it is needed, is used efficiently."

The diverse array of considerations included in the Sustainable Sites guidelines stretches far beyond conserving water to include erosion control, wildlife habitat protection, green waste recycling, greenhouse gas sequestration and many more. These issues need to first be considered when designing landscapes on a particular site, but also need to be considered on an ongoing basis while maintaining the landscape.

One important maintenance aspect discussed in the Sustainable Sites guidelines is the approach to handling pests and insects. "Sustainable Sites recommends, and has set a goal of, limiting the use of pesticides until it's absolutely necessary, and when it is, selecting the least toxic, or a nontoxic, option," says Somerville. Again, though, she adds, "The pieces are all interrelated. If your planting plan calls for grass or plant varieties that are particularly prone to pests, then you set up a situation where it will require more pesticides, and then it becomes difficult to make it a sustainable site. The selection of turf and other plant varieties, and their appropriateness to the climate conditions, the specific site, the soil conditions, etc., will help set up a situation where you can use more environmentally sustainable maintenance methods."

The Sustainable Sites initiative requires a formal maintenance plan. "To do this right on any site, even one that might appear relatively simple, the process has to be highly collaborative," stresses Somerville. "There has to be communication all the way from the designer right through to the person who will be performing the maintenance on a regular basis, and it has to be documented." Written records are especially important to ensure that if the ownership of the property changes or a new maintenance firm is brought in, the knowledge of the plan that has been put in place is transferred to the new parties. This can prevent, as one example, a new company taking over maintenance of a property and mowing the grass at a height lower than it is capable of tolerating and damaging or killing the plant.

As a national program, the Sustainable Sites initiative prescribes general performance guidelines, rather than a specific plant species or precise techniques. "Things differ so much region to region. The hope is that, as the initiative moves forward, a catalog of sources [will be developed] to guide people on the best location-specific choices. There are some resources like that available already, and one of the things we're hoping to do is develop a library of where people can find these resources," Somerville explains. "We want to be able to point people in the right direction."

There is a huge opportunity for those in the landscape design and maintenance professions to educate themselves and, in turn, potential clients about creating a more environmentally conscious landscape. "There is a growing—and growing very fast—demand for these services," says Somerville. Late in 2008, the ASLA commissioned a public opinion research survey to gauge the public's environmental awareness and how they feel about taking an environmentally

friendly approach with their lawns and gardens. "What the survey showed us is that there is very high interest, some 80 percent of people, across a broad cross section of the population, said they were doing some eco-friendly or energy-saving thing within their homes. Things like using energy-saving lightbulbs or turning the thermostat down," she explains. "But, the level of knowledge of what they could do outside of the building envelope dropped off tremendously. There was a lot of interest, but almost no understanding of what could be done outside."

Somerville feels that, like the general population, the majority of those working in lawn and landscape maintenance are willing and eager to get behind sustainable approaches, and simply need the resources and education regarding sustainable practices. "The fundamental goal of what we're doing is to get the education, the tools and the benchmarks out there so they can be used as widely as possible. We're very ecumenical in our approach. We're happy to have other groups and rating systems take and use what we've done and incorporate it into their standards," she says. "The Sustainable Sites information can be useful whether someone is applying it through a third-party certification program, or by someone who is just interested in using the information and guidelines to help make what they're doing more sustainable."

One way the Sustainable Sites initiative is trying further the notion of environmentally conscious landscape design and maintenance is to partner with other organizations focused on eco-friendly activities. Early on, the organizers contacted the U.S. Green Building Council ([www.usgbc.org](http://www.usgbc.org)), which operates the LEED Green Building program, seen as the standard in terms of environmentally conscious construction. Currently, a representative of the USGBC sits on the steering committee of the Sustainable Sites. "They've been a good partner and very supportive," says Somerville. "They see what we're doing as complementary to the LEED Green Building system, and they anticipate taking what's developed in Sustainable Sites and incorporating it into future editions of LEED."



This Oceanside home in Palos Verdes, Calif., won a 2008 ASLA Residential Design Honor Award, in part for the emphasis the project placed on sustainability. For example, native plants and grasses were chosen to minimize the need for intensive future maintenance.

Like the LEED Green Building program, the Sustainable Sites initiative has been developed broadly to apply to residential, commercial and other landscape sites. "Our goal is to make sure that the guidelines can be applicable, with a little tweaking, to someone's backyard, as well as to a park or a campus or streetscape," says Somerville. "The guidelines also take into account how a landscape site is started. Whether it's a pristine site or a brownfield, the concept remains the same."

The hope is to eventually develop outreach and training programs, but currently the best source explaining the Sustainable Sites initiative is the program's Web site. In particular, Somerville advises reading the report titled "Sustainable Sites Initiative Guidelines and Performance Benchmarks—Draft 2008." Those in the lawn and landscape maintenance industry can delve into those sections that apply to maintenance, but it's also helpful to review the guidelines as a whole because sustainability requires complete collaboration from design to construction to maintenance.

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