Sustainable Sites: The Case for a Site-Only LEED

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The Leadership in Energy and Environmental Design (LEED) rating system was developed to help quantify the relative sustainability of proposed development projects. Since buildings are a major consumer of energy and materials, the LEED rating systems v1.0, v.2.0 and now v.2.1 have focused on the impacts that buildings and the construction process have on the environment.

As professionals, agencies, and developers have used the LEED rating system, the need for variations of the rating system for different project types have become apparent. Thus several new variations, called "vertical markets" in LEED parlance, have been or are in the process of being developed. These include LEED Core and Shell (LEED CS), LEED Commercial Interiors (LEED CI), LEED Existing Buildings (LEED EB) and others.

Although buildings do have a major impact on the environment, many projects that do not include buildings also play a pivotal role in the protection of environmental quality, human health, and community livability. It is time to recognize the impact of these Site-only projects with a new LEED vertical market for Site Development (LEED SD)

The following are a few of the major reasons that support a LEED Site Development version:

1. **Some of our most sensitive environments are being developed without buildings.**
   Whether it is a proposed new hiking trail and overlook in a National Park, a boardwalk trail through a wetland, a 2000 person outdoor amphitheater, or the development of a new sports field complex adjacent to a river which supports threatened fish species, poorly developed sites result in degraded environments.

2. **Some of the projects which have the greatest impact on the environment are not currently eligible to receive LEED certification.**
   Consider the impacts that dams, roads, powerline corridors, stormwater management strategies, park developments, and streetscape design have on the quality of the natural and urban environment. Without a building, none of these project types are eligible to be considered for LEED certification. Without the incentive of LEED certification, these site intensive project types are less likely to be as sustainable as possible.

3. **Often the impacts of site development are much greater than the impacts of the associated building, leading to a false sense of sustainability.**
   For example, a "Park and Ride" project that contains a public restroom and ticket kiosk could receive LEED certification if it contained a stellar building, even though it exhibited poor site development measures. Although the building might do an excellent job of addressing the LEED categories of Energy and Atmosphere, Indoor Air Quality, and Materials, it is part of a project which includes a 500 car parking lot with tremendous amounts of impervious surfaces, built on a filled wetland, with a landscape managed with high amounts of chemicals!

4. **The current requirements for Sustainable Sites lacks the thoroughness and detailed specificity that could be brought to bear on a project that is evaluated in Site-only LEED product.**
   LEED v.2.1 contains many credits in the Sustainable Sites, Water Efficiency, and Materials Categories that are affected by site development strategies, However, they are somewhat limited in

their requirements and expectations. In a Site-only LEED product, many new credits could be established to further improve the sustainability of these projects, including:

A. Giving credit for use of plant species that are indigenous to the project location
B. Credit for developing a Landscape Maintenance Plan that minimizes the use of pesticides, herbicides, and fertilizers, and maximizes organic landscape management practices.
C. Additional credit for protection, salvage and reuse of onsite plant materials.
D. Credit for creating viable fish and wildlife habitat in conjunction with site development.
E. Recognition of projects that restore natural landscapes
F. Credit for innovative environmental education, interpretive and integration of art that helps the public understand natural and cultural resources.
G. Credit for including resource production as part of the landscape design.
H. Credit for managing soil grading and amendment more sustainably.
I. Credit for improved conservation of natural resources

5. **A Site-only LEED would allow for increased visibility for the USGBC, LEED.**
Many public agencies such as local parks districts, utilities, and transportation departments, State Parks, and federal agencies such as the US Fish and Wildlife Service, Federal Highway Administration, and others do not have the opportunity to demonstrate their commitment to sustainability through receiving certification for projects which do not contain buildings. In addition, the USGBC loses an opportunity to become more recognizable in the public at large.

6. **The sustainability that comes with Historic Preservation of significant cultural landscapes is not recognized in the current LEED rating system.**
Historic Preservation and Restoration of sites such as parks, gardens, grounds, waterfronts, contributes greatly to sustainability and livability as growing populations lead to additional development. Similar to preservation of historic structures, this field may involve preservation or maintenance of a site in relatively static condition, conservation of a site as part of a larger area of historic importance, restoration of a site to a given date or quality, or renovation of a site for ongoing or new use.

Please Note:
The above is a first draft...I would welcome your thoughts, insights, edits, new ideas and expansion. Please feel free to contact me at:

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