

## THE “S” Word: SUSTAINABILITY?

Finding A Place For It In Every Project

By David Chewey, CLA, Garden Associates Landscape Architecture, Inc.

The Climate Change Performance Index (CCPI) has ranked the 56 countries responsible for 90% of energy-related CO2 emissions for the third year in a row. The United States is 55<sup>th</sup> on the list while many European and South American countries make up the top 20. These daunting and troubling figures are sometimes the reason for the lack of a **sustainable** effort. Developers and owners equate **sustainable** and **green** initiatives with being major undertakings and very costly. Thus, **sustainability** has now become somewhat of a bad word amongst the developer’s community. It’s something everyone wants to do, but rarely does the trigger get pulled, short of a handful of developers who have taken the leap of faith and benefited both socially and economically.

If you think in terms of the number of residential and commercial developments, both private & public, across the U.S., where **sustainability** exists, the percentage is too small to determine. But, from the perspective of environmental impact, it is that small number which is a major contributor to the ranking released by the CCPI.

Movies, news reports, and articles where **sustainability** and **green** are the subject matter almost always have a few key quotes stating that if every person did just one ‘simple thing,’ the climate would benefit in a most profound and enduring way. Whether it is changing your light bulbs to energy efficient fluorescent or buying a more economical vehicle, the point is that it is simple and not costly. The same is true for developers.

Every project, new or existing, can have a thread of **sustainability**. Based on our changing climate and CCPI ranking, every project *should* have a thread of **sustainability**. What’s true for the family of four watching the news is true for the developer building a multi million dollar Class A office building; they need to be educated. The downside of most of the movies, news reports, and articles is that they are filled with data and statistics which are overwhelming. A developer, like a consumer, doesn’t always respond well to this. Being overwhelmed, in many cases, forces lack of change as opposed to driving it.

Naturally, there are many levels of **sustainability** as they relate to new and existing construction. Without a doubt, some efforts are very costly up front, but the return on investment for larger and more comprehensive initiatives is much more noticeable. What needs to be realized are that smaller efforts exist which can cost much less to integrate into a project or sometimes no additional cost at all. These efforts will still have a great impact on the environment and in some cases show a return from day one.

### The Other “S” Word

There is another word that can send a shiver up the spine of architects and engineers - **stormwater**. Managing **stormwater** runoff is a completely **sustainable** initiative. This

initiative can be done at little or no additional cost, and with less environmental impact. One effective and lasting solution is the proper design of a **Rain Garden**.

It's important to know the negative impact of improperly managed **stormwater**. Polluted **stormwater** slows the process of photosynthesis in plants by reducing light penetration. The waste in the **stormwater** uses up oxygen which is vital to plants and marine life. Since **stormwater** eventually finds its way into waterways, not only do plant & marine life suffer, but other animals and ultimately humans are affected by the high levels of bacteria. Needless to say, cleaning or *filtering* of **stormwater** is critical.

The **Rain Garden** solution is not a new one. In the early to mid 1990's, developer Dick Brinker integrated them into a new housing subdivision being built in Prince George's County Maryland. In that particular case, \$300,000 was saved on initial installation costs over traditional systems of curbs, sidewalks and gutters not to mention ongoing savings by reducing the maintenance, pesticides, fertilizer, etc.

Since then, **Rain Gardens** have been adopted slowly, but steadily by homeowners, developers and municipalities. Various cities throughout the country have begun to encourage their residents to install **Rain Gardens**. From Maplewood, Minnesota to Atlanta, Georgia, efforts are being made to further educate and promote the installation of Rain Gardens. In Kansas City, Missouri, the public initiative, aptly named *10,000 Rain Gardens* has greatly increased the community's involvement in **stormwater management** through the installation of **Rain Gardens**. For up to date information and news on the progress of the *10,000 Rain Gardens* initiative, visit [www.rainkc.com](http://www.rainkc.com).

As mentioned earlier, education is the key component which will lead to change. That said, here are some of the reasons why a homeowner, municipality, or builder/developer would integrate a Rain Garden:

- **Rain Gardens** can save you money. They don't need to be fertilized or sprayed, only weeded and mulched. They reduce the amount of lawn you have to maintain.
- A **Rain Garden** on your property makes you part of a solution to stormwater pollution. **Rain Gardens** can potentially absorb hundreds of gallons of rain that would otherwise wash pollution down the street and into the nearest river, stream, or lake. Even small **Rain Gardens** can absorb a lot of rain.
- A **Rain Garden** can be part of a stormwater reduction plan to help solve problems of combined sewer overflows (CSOs).
- **Rain Gardens** are low maintenance. Once established, they require no fertilizer, watering, or mowing. A once a year cleanup, addition of shredded hardwood mulch to keep the surface moist and tidy, and removal of weeds and invasive species are all that are required.
- **Rain Gardens** can contribute to groundwater recharge, a natural process that is interrupted by soil compaction and hard surfaces created during development and building.
- A **Rain Garden** project can educate the public about the problems that stormwater runoff creates, while giving people a beautiful solution.

- A **Rain Garden** project can be part of the educational toolbox used by a community stormwater education team.
- **Rain Gardens** can actually remove many of the common pollutants in stormwater
- **Rain Gardens** are lovely landscaping features.
- **Rain Garden** plants create wildlife habitat and attract butterflies, birds, and other wildlife.<sup>1</sup>

Whatever the driving influence, be it financial, ‘going green’, or both, it is clear to see that understanding why the two “S” word’s are so important and how you can manage **stormwater** and become **sustainable** at the same. Taking the necessary steps towards a **sustainable** project could very simply mean managing your **stormwater** through the installation of a simple **Rain Garden**. This sensible solution could very well be the ‘one thing’ you can do to influence our environment in a positive way without the risk of going over budget. Whether already in the ground or still just a draft on the table, there is no wrong time to bring a little green into your home, business or project.

### **About Garden Associates Landscape Architecture**

Garden Associates provides a comprehensive suite of services in the areas of landscape architecture, sustainable design, and green initiatives including rain gardens, green roof and green wall design. The company partners with architects, engineers, builders & developers, and environmental groups to handle the landscape design services for single family homes, multi-unit housing, commercial & retail properties, schools, healthcare, and state & local government. Garden Associates also works directly with homeowners in the development of master plans, pool & spa design, hard-scaping, plantings, outbuildings, fencing, decks, patios & walkways, and equine environments. Garden Associates Landscape Architecture has been in business for 17 years as state certified landscape architects.

###

If you’d like more information about this topic or to schedule an interview with David Chewey, please call Kelly Duncan at (908)823-3330 or email Kelly at [kduncan@gardenassoc.com](mailto:kduncan@gardenassoc.com)

---

<sup>1</sup> Rain Gardens of West Michigan [http://www.raingardens.org/Qualities\\_And\\_Benefits.php](http://www.raingardens.org/Qualities_And_Benefits.php)