

# GG117-14

## 202 (New), 403.1.1

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**Add new definition as follows:**

### SECTION 202 DEFINITIONS

**GREEN INFRASTRUCTURE.** A soil- and vegetation-based approach to stormwater management that is cost-effective, sustainable and environmentally friendly. Green infrastructure management approaches and technologies infiltrate, evapotranspire, capture or reuse stormwater to maintain or restore natural hydrologies.

**Revise as follows:**

**403.1.1 Increased runoff.** Stormwater management systems, including the use of green infrastructure, shall address the increase in runoff that would occur resulting from development on the building site. ~~The stormwater system and shall either:~~ 1. manage rainfall onsite and size the management system to retain not less than the volume of a single storm that is equal to the 95<sup>th</sup>-percentile rainfall event and all smaller storms and ensure that runoff is not more than maintain the predevelopment natural runoff. ~~;~~

~~2. Maintain or restore the predevelopment stable, natural runoff hydrology of the site throughout the development or redevelopment process. Postconstruction runoff rate, volume, and duration shall not exceed predevelopment rates. The stormwater management system design shall be based, in part, on a hydrologic analysis of the building site.~~

**Reason:** The proposed change simplifies the code and clarifies the intent to provide on-site stormwater management. It also aligns the IgCC with LEED v. 4. The second clause is deleted for a number of reasons.

1. None of the terms are defined. What is predevelopment runoff refer to -- volume or rate or hydrograph?
2. Matching the predevelopment hydrology is not necessarily sufficient to adequately manage stormwater or protect water quality.

Having the same amount of runoff coming from a site post-development can result in more pollution, since there are more pollution sources on the developed site than in predevelopment condition. This is especially true for sites with relatively non-porous soils in predevelopment conditions.

The defined term GREEN INFRASTRUCTURE aligns with the definition of green infrastructure in LEED v. 4. This term must be defined to align with proposed changes to Chapter 4, stormwater management.

### **Bibliography:**

U.S. EPA (2007). *Reducing Stormwater Costs through Low Impact Development (LID) Strategies and Practices*, p. iii, accessed at <http://www.epa.gov/owow/NPS/lid/costs07/documents/reducingstormwatercosts.pdf>.

"*Advocacy: Stormwater Case Studies*," (2011) American Society of Landscape Architects, accessed at <http://www.asla.org/ContentDetail.aspx?id=31301>.

**Cost Impact:** Will not increase the cost of construction. A 2007 U.S. EPA study found that "in the vast majority of cases [green infrastructure] practices save money for developers, property owners and communities while protecting and restoring water quality." The American Society of Landscape Architects released a survey in October 2011 that found green infrastructure reduced or did not influence costs 75 percent of the time.

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