

SECTION 9: USING AND PROCURING MATERIALS SUSTAINABLY

9.1 Selecting Materials for Sustainability

During the maintenance phase, SITES™ v2 recommends that the LMP include a “list of preferred characteristics for replacement materials,” such as:

- Materials from local and regional sources
- Recycled content materials
- Certified wood products
- Energy-efficient lighting

Develop your own list in consultation with the integrated design team and identify local sources most aligned with your procurement goals.

9.2 Using Fertilizers

In the Chesapeake Bay watershed, fertilizers are considered a major source of pollution. Conservation landscapes and stormwater BMPs are designed to minimize the use of fertilizers and capture and treat any stormwater runoff carrying dissolved nitrogen and phosphorus. The Urban Nutrient Management BMP approved by the Chesapeake Bay Program is a series of turf-related activities that minimize fertilizer use. Conservation landscapes, according to the CCLC, reduce or eliminate the use of pesticides and fertilizers.

Larry Weaner, in *Garden Revolution*, comes down against fertilizers entirely, saying, “If you’ve chosen plants that are adapted to the soil, site, and climate, once rooted in the plantings [they] won’t need such artificial assistance (except perhaps in the rare case of an extreme and prolonged drought). Dumping extra and unnecessary resources into a garden ecosystem invites invasion by those garden opportunists, weeds.” (p. 17)

The SITES™ v2 Rating System checklist offers a credit (Credit 8.4, pp. 106–107) for minimizing pesticide and fertilizer use. Among the many excellent suggestions are the following:

- Ban all “weed and feed” type fertilizers.
- Set and enforce buffer zones where fertilizers and pesticides may not be applied (such as near drains, near curbs or driveways).
- Develop a list of organic or slow-release fertilizer products that are approved for use on the site.
- Ban the application of all fertilizers during any rainy seasons, before predicted heavy rainfall events, and during summer.
- Ban the use of all fertilizers after the establishment period (with some exceptions; see full text).

Washington State’s *ecoPRO Guiding Principles and Sustainable Best Practices* advises avoiding the use of synthetic fertilizers. (p. 21) Maryland has a statewide [lawn fertilizer law](#) with a great deal of online information. The website states that, “lawn care professionals hired to apply fertilizer to lawns must be certified by the Maryland Department of Agriculture or work under the direct supervision of an individual who is certified.” For other jurisdictions, know when an applicator license or certification is required, and comply with any state and local laws. Avoid using combination pesticide and fertilizer products, and follow fertilizer label rates and schedules.

9.3 Procuring Mulch

Larry Weaner, in *Garden Revolution*, comes down against mulch as well as fertilizers, saying, “Broad seas of mulch, a too common feature of contemporary North American landscapes, are an invitation to trouble.” (p. 155) He means that mulch may suppress certain weeds but not more aggressive ones like Japanese knotweed. Weed seeds, or even pests like emerald ash borer may be brought onto a site in costly mulch. Furthermore, mulch may inhibit germination of seeds of desirable plants. A better solution, and one also endorsed in the book, *Planting in a Post-Wild World*, is to create a dense ground cover plant layer, and more dense plantings in general, as a weed suppression strategy. University of Maryland Professor Emeritus, Frank R. Gouin, is a frequent area lecturer on the downsides of mulch. Dr. Gouin advocates keeping older mulch on site rather than paying to haul it away, advising that it be raked and reapplied.

If your site does require mulch, follow any design specifications or drawings regarding its application. Mulch applied to newly installed rain gardens or vegetated swales prior to establishment of vegetative cover, or due to inadequate planting density, may wash out during heavy rain events. When this is the case, consult with the client and design professional (if any) to identify suitable alternatives such as coir or jute matting. Evaluation of planting density may also be required.

Purchase mulch from sources known to be free of toxins and pests (like emerald ash borer). For mulch application methods, see Section 15 of this manual. If you are asked to apply mulch to play areas with elevated play equipment, notify your client that engineered wood fiber (EWF) and not landscape mulch, is the correct material to apply within equipment use zones. When in doubt, consult a Certified Playground Safety Inspector (CPSI).

9.4 References

Conservation Landscaping Guidelines: The Eight Essential Elements of Conservation Landscaping. Section 8: Management. 2013. Ridgely, MD: Chesapeake Conservation Landscaping Council.

ecoPRO Certified Sustainable Landscape Professional: Guiding Principles and Sustainable Best Practices, Version 2b, p. 21. 2014. Washington Association of Landscape Professionals and Washington State Nursery & Landscape Association.

Ranier, Thomas and Claudia West. 2015. *Planting in a Post-Wild World*, pp. 50–54, 205–206, and 233. Portland, OR: Timber Press.

SITES™ v2 Rating System. 2014. Section 8.1, Topic 4 and Credit 8.4. 2014. Green Business Certification Inc. All rights reserved.

U-5 Urban Nutrient Management Fact Sheet. 2015. Chesapeake Stormwater Network.