GG243-11 Proposes to Delete the Current 40% Limitation Imposed on the Use of Turfgrass

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Final action voters should vote against the standing motion to disapprove GG243-11 and in favor of a motion to approve GG243-11 as submitted.

Reason: An arbitrary limitation on a choice of plant material (specifically turfgrass) is too prescriptive and not an appropriate means to address site sustainability goals. A better approach would be to set a performance goal, of which an appropriate selection of plant material type, quantity and location (right plant in the right place) could be used effectively to meet such a performance goal. The focus needs to be on performance and not a narrowly defined (and misinterpreted) means to achieve that performance when there are several viable, practical and effective means to meet a goal. Simply stating a prescription like the 40% turf limitation does nothing to define a goal that will provide for the right level of performance.

Also, given the origins of the 40% turfgrass limitation, the assumption is that the inclusion of this provision is intended to reduce water use. One cannot infer or know that the 40% turf limitation will reduce water consumption of the landscape when the remainder of the landscape is not specified or prescribed in the same way as the 40% turf limitation. Further, restricting turf to 40% of the vegetated area connotes a wholly inappropriate negative environmental value to turfgrass and completely discounts its positive social, economic and environmental attributes.

In a study evaluating the effect of three landscape types on residential energy and water use in AZ, McPherson et al. (1989) found that energy consumed for air-conditioning a home with a rock landscape was 20-30% more than for the turf and shade landscape. This was due to a 4°C depression in landscape temperature attributed to evaporative cooling from the turf. Even when accounting for CO2 and N2O emissions from inputs required to maintain turfgrass in the urban landscape, Townsend-Small and Czimczik (2010) found turfgrass to be a net sequester of carbon when applying up to 400 kg N ha-1 yr-1. Milesi et al. (2005) used satellite imagery and modeling and estimates total potential C sequestration of turf in the continental U.S. to range from -0.2 to 16.7 Tg C yr-1 depending on management. The CENTURY model has identified intensively managed turf can sequester approximately 1 t C ha-1 yr-1 (Qian and Follett, 2002). This rate of sequestration is similar to perennial grasslands following cultivation (1.1 t ha-1 yr-1) (Gebhart et al., 1994), is much higher than unmanaged grasslands (0.33 t ha-1 yr-1) (Post and Kwon, 2000), and is twice as much soil C stored compared to native prairie (Bandaranayake et al., 2003).

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Alternative landscapes are sometimes touted for their putative ability to reduce urban runoff and enhance groundwater recharge but such outcomes are not necessarily realized. Erickson et al. (2001) found no significant differences in runoff water quantity when comparing a native Florida woody perennial landscape to a St. Augustine grass landscape. However, significantly greater amounts of P were leached from the native perennial landscape compared to the turfgrass landscape (Erickson et al., 2005). The thatch-forming capabilities of turfgrass in combination with a permanent and dense plant structure yields a less channelized pathway for water movement, which increases resistance, horizontal spread, and infiltration of surface runoff (Linde et al., 1995). This effect was demonstrated by Krenitsky et al. (1998) who observed turfgrass sod to be more effective than synthetic erosion control materials in reducing both runoff and sediment losses through the delay of runoff initiation. This combination of factors may be enough to reduce runoff water volumes and therefore nutrient loading, regardless of soil nutrient concentrations. Steinke et al. (2007) showed managed Kentucky bluegrass turf was as effective as a buffer for runoff from paved surfaces as a planting of native prairie and yielded no more nutrient or sediment pollution despite fertilization. Kentucky bluegrass turf had similar water infiltration capacity as the native prairie plantings (Steinke et al., 2009).

The above notes just a few of the many environmental benefits that will be at risk significantly if the 40% turf limitation is included in the IgCC. Further, as the IgCC targets energy and water conservation among other efficiency benefits, the inclusion of the 40% turfgrass limitation will not align with broader performance goals around these benefits. The 40% turfgrass limitation is bad code, almost impossible to enforce, and should not be included in the IgCC. The entire document loses credibility and support when clearly arbitrary provisions like the 40% turf limitation prevail.

NICK WALTERS, *a technician at Medina Golf and Country Club in Medina, chips up to the green during the MGCSA Championship at Ruttger's Bay Lake Lodge in Deerwood.*

John A. Monson, *a retired member of the MGCSA, is the 2011 MGCSA Senior Division Champion. He carded at net 69 on The Lakes course at Ruttger's Bay Lake Lodge. Jim O'Neill, CycleWorks Golf Supply, was runner-up at 78.*