A brief summary of the institution's approach to sustainable landscape management

At WKU, we strive to utilize sustainable, best practices, such as, water conservation, storm water management and lower combustion engines, while maintaining the highest level of aesthetic and appeal possible. Campus services have replaced all of our gas burning riding mowers with lower emission, bio-ready diesel mowers. We are incorporating more drought resistant, native plant xeriscapes, rain garden and habitat gardens. Native plants attract a more diverse array of native animal species, further increasing biodiversity within the campus landscape. We are harvesting rainwater, using organic pesticides, such as neem oil, in our greenhouses. In many of our gardens we have mulched with gravel rather than organic mulches. Gravel will not break down and increases water infiltration to the soil.

A brief description of how the institution protects and uses existing vegetation, uses native and ecologically appropriate plants, and controls and manages invasive species

We do not store or apply any pesticides in house and we implement several programs including but not limited to; planting and maintaining very diverse micro-habitats and ecosystems that encourage high populations of predatory insects that feed on invasive pests, we even purchase live lady bugs to help combat aphids, mites and adelgid infestations. In addition to maintaining biodiversity, we use organic fertilizers that contain natural plant auxins and live microbes which inhibit the growth of broadleaf weeds and minimize fungal growth on turf grass. The most effective method of controlling weeds on our campus lawns, has been to establish and maintain healthy and vigorous turf. We achieve this goal through methods such as mowing height, smart irrigation, implementing an aggressive organic fertilizer regimen and over-seeding with the appropriate turf in the appropriate areas. Over the past several years we have been able to steer away from the overuse of dangerous chemical pesticides and moving in the direction of organic based naturally occurring compounds, which promote healthy turf and limits weed growth naturally.

A brief description of the institution's landscape materials management and waste minimization policies and practices

Every year when trees need to be trimmed or cut down they are ground and taken to the University farm and reused as mulch. As an urban campus with close to 300 acres that are covered with approximately 3000 trees, the fall leaf collection season creates a unique seasonal challenge. WKU sits on a hill, and therefore we need to make sure drains are clear to prevent flooding, sidewalks are clean to prevent slip hazards and the lawns are clean as not to impede the fall over seeding operation. We are able to address these challenges with diesel powered leaf vacuums, hi-volume backpack blowers, and turbine style forced air blowers. Each year we collect and grind leaves from the campus then reuse the following spring for compost in our annual and perennial landscape beds. On a few occasions we have actually been able to re-use extracted bedrock from construction sites to construct stone walls and other landscape features.

A brief description of the institution's organic soils management practices

In an effort to continually improve and enhance the conditions of the soils we use only organic based fertilizers that contain microorganisms that are fundamental for building healthy soil. Soil is the quintessential element for all growing things. We also implement a regimented aeration program which increases oxygen levels to the root zone. In an effort to reutilizing pH levels we use calcium as opposed to lime which is more environmentally responsible than the mining of lime.

A brief description of the institution's use of environmentally preferable materials in landscaping and grounds management

WKU uses only organic fertilizer such as Clarius and Nature Pure® is a process that preserves PURE sources of organic matter without the use of driers or heaters. Derived from 100% all-natural composted poultry manure, bioassays reveal an excellent biology ideal for optimizing a soil's biomass immediately upon application. Inoculants are not needed. Good microbes occur naturally. Additionally we always try to source locally grown and native plant selections for our landscapes. it is critical to use these native local plants because they are more drought tolerant reducing the use of water need to keep them alive. We also almost exclusively use harvested rainwater to fill tree bags and water landscape beds when needed.

A brief description of how the institution restores and/or maintains the integrity of the natural hydrology of the campus

A proactive problem solving approach to our numerous and historic storm water issues will result from the communication, coordination and cooperation between grounds, maintenance, building services and PDC. By recording the data, monitoring our corrective efforts and being apprised to approaching weather conditions. Many of the existing ground level storm drains have been subject to contamination such as leaves, mulch trash and other materials. One way to help minimize this is to enhance the run-off channels and create deliberate swales for the storm water to flow through

A brief description of how the institution reduces the environmental impacts of snow and ice removal

Over the past 3 years we have been using less calcium chloride and have moved toward using more Cryotech CMA® solid commercial deicer. this is granulated calcium magnesium acetate, a patented chemical formulation from dolomitic lime and acetic acid. It is identified as a low corrosion, environmental alternative to road salt by the U.S. Federal Highway Administration. CMA is used worldwide to answer environmental concerns such as pollution, soil contamination of heavy salts and solve problems associated with corrosion and concrete spalling.