

The Charlottesville/Albemarle community is set apart from other communities by its abundance of rivers, streams and creeks. These water bodies provide sources for recreational activities, habitat for wildlife and drinking water for area citizens. Protecting water quality is the only way to ensure our continued use and enjoyment of these waterways.

Perhaps the greatest misconception about poor water quality is its cause. There are two general categories of pollutants: point and non-point source. Most people wrongly assume that point source pollution is the greatest threat to water quality. In fact, the ease with which point source pollution can be traced makes it much less of a threat than pollution from non-point sources.

Point source pollution is contamination from a specific, identifiable location or source. This type of pollution is easily regulated against, as it can easily be traced to an offender, who is then required to go through remediation to correct the problem, and work to prevent it from occurring again.

Non-point source pollution is contamination from a non-specific source, and is therefore less easily regulated and controlled. For instance, motor oil, candy wrappers, nitrogen fertilizers and many other products could come from any number of different sources including homes, schools, and parking lots. Because it can be almost impossible to definitively identify a pollution source, non-point pollutants are difficult to regulate.

One of the most significant contributors of pollution to our waterways is run-off from bare ground and impervious surfaces. This run-off carries with it contaminants that may eventually find their way into a body of water. Reducing run-off will in turn minimize the opportunity for pollution.

Driveways, sidewalks, and patios are the common components of the home landscape that prevent water from percolating through the soil. By minimizing the dimensions of these features, or creating them out of permeable materials, you can reduce run-off. A great way to increase permeability is to use plant material for these surfaces, rather than stone and concrete.

In a driveway, you can use the groundcover *Leptinella gruveri*, or Miniature Brass Buttons, in place of concrete, asphalt or even gravel. It is a fast-spreading, tough and durable plant that can be driven on once it becomes established. It grows by runners, or above ground rooting structures, and mats so tightly that it is nearly as tough as cement at maturity.

For patios and sidewalks that receive only foot traffic, there are even more options. Groundcovers can be used alone in these areas or interplanted amongst stones to create a solid surface.

To create a sidewalk or patio that can be used year-round, consider *Herniaria glabra*, or Rupturewort. This is an extremely dense groundcover with evergreen foliage, which turns slightly red in the winter. It is durable enough to withstand fairly heavy foot traffic.

A semi-evergreen alternative is *Pratia angulata*, White star creeper. It has starry, white flowers, and reddish-purple fruit. This plant is most appropriately used between stones.

In areas where year-round color is not essential, there are a number of hardy, perennial groundcovers that will provide interest Spring through Fall. *Potentilla neumaniana*, Creeping potentilla, is a fast-spreading, tough plant that can choke out almost any weed. It has a dark green leaf and yellow flowers that are prolific throughout the summer. In addition to being tolerant of heavy foot traffic on a patio or sidewalk, it is also an excellent substitute for lawn.

*Sedum requienii* is another, nearly indestructible plant. This small leafed succulent is extremely drought tolerant, fast spreading and hardy. Even the smallest leaf that breaks off will quickly take root.

For shadier locations *Sagina subulata*, or Irish moss is an excellent choice. It forms a dense carpet that is covered in small, white flowers in the late spring. This plant reseeds readily and will quickly fill in a space. The best location for Irish moss is between stones in a shady spot.

While these hardy groundcovers are excellent choices for reducing run-off from solid surfaces, they are also wonderful additions to the landscape for their maintenance ease. These will be the only plants in your garden begging for a little neglect. All they need is to be walked upon every now and then. Should they grow taller than you would like, a quick mowing or weed eating will get them back in shape. You cannot ask for much more than a low maintenance garden that protects water quality.

