

Radcliff Stormwater Management

STORMWATER management has become a problem of national significance. To protect and improve water quality, the U.S. Environmental Protection Agency and Kentucky Division of Water are moving toward much tighter controls of non-point sources of water pollution (those most associated with runoff), and these controls will have serious implications for many municipalities and private landowners.

Radcliff has attempted to take a pro-active approach to managing through establishment of a stormwater advisory committee. Fees associated with managing quality and quantity will be funded by a utility.

A simple statement of the problem is that rainfall flows across the surface when and where nature did not intend for it to flow, causing alteration of the surface and movement of soil and other materials.

However, the issues are much more complicated because there is often a lack of understanding of how and where surface flows originate and who should be responsible for repairing the damage they cause. Other issues concern discharges in the drainage system, which then enter streams and rivers, and underground water supplies.

Many also do not connect effects like erosion, flooding, siltation of ponds, reservoirs and lakes, or even dirty water in waterways and in the karst (sinkhole) drainage system to causes like removal or alteration of vegetation, creation of impermeable surfaces like pavement and rooftops, or changes in the natural form of channels.

The more downstream (or downhill) property owners are, the more they are affected, but the less they contribute to the problem.

Forested areas that dominated the landscape in the Radcliff area prior to habitation and development are remarkably efficient at absorbing, using and controlling rainfall; very little becomes runoff.

About 15 times as much rainfall becomes runoff from grassed areas, and about 40 times as much from construction sites or tilled fields. Nearly all rain falling on impermeable surfaces becomes runoff (perhaps 100 times as from forested areas).

Consider that a lot with a residence and driveway is likely to have about 2,800 square feet of impermeable surface. In the Radcliff area, this property could contribute about 61,600 gallons of runoff annually. Multiply that by hundreds or even thousands of similar properties in the watershed and the scope of the problem should be apparent.

The facts are that impermeable surfaces on property owners are causing damage to properties owned by others, and the municipality is spending to provide and improve conveyances for this water.

It might be helpful, more appropriate or fair for property owners to evaluate responsibility rather than benefit. Additionally, the volume and damaging effect of is exactly related to impermeable surfaces, not to the value of the property.

It might also be appropriate for the municipality to spend some of the revenue to prevent runoff nearer the head of the watershed, rather than focus resources at building bigger and better channels downstream.

A stormwater utility for Radcliff and its property owners is the best way to fairly deal with the water quality and water quantity problems associated with runoff.

These utilities are effective in other parts of the country, and a utility is best for Radcliff to deal with the highly technical engineering problem.

The real issue is that the vast majority of Americans state they are concerned about the environment, yet most experts estimate that 70 percent of all water quality impairment results from non-point sources of pollution, mostly associated with storm-water runoff.

It is in everyone's best interest to find effective, economical and fair ways to reduce that pollution.