



Huron River Watershed Council

OTHER VOICES ARTICLE

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Drinking Water: The Other Land-use Story

I read with great interest the Ann Arbor News series on the impact of rapid development on this region, and I'd like to point out one additional, crucial way that we're all affected by sprawl: it damages our water supply.

The Huron River is the major source of water in the area. The City of Ann Arbor gets 80% of its drinking water from the Huron, and the river offers beautiful scenery, unique wildlife, and great fishing, all of which draw visitors from near and far. The Huron is vital to our health and economy. The biggest threat it faces is sprawl.

Studies—nationwide and on the Huron—consistently show an alarming fact. Sprawl directly harms water quality. Volunteers with the Huron River Watershed Council (HRWC) have studied, for many years, 73 sites on the river and its streams. The worst conditions are invariably found in the locations with the greatest development.

What's the connection? Development creates impervious surfaces, such as roads, rooftops, and parking lots. When rain falls on these surfaces, it has no chance to seep into the soil or be absorbed into plants. Instead, it rushes quickly and directly into the nearest waterway, washing pollution and sediment in with it, and flowing so fast that it tears away the riverbanks and causes flooding.

Dozens of studies, including those done on the Huron, show with remarkable consistency that when imperviousness in a watershed exceeds about 8-10% of the total area, water quality begins to suffer. A traditional residential development with one house per 2.5 acres already exceeds 10% imperviousness.

Building traditional cookie-cutter developments—where single homes sit at the centers of big lots on long streets—is one of the worst things you can do for water quality. In these low-density, auto-dependent subdivisions, imperviousness runs amok. It landscapes rural areas with tons of pavement: longer and wider roads, driveways, parking lots, plus new commercial and big-box retail centers with their own new roads and lots.

The best way to keep impervious surfaces below the crucial 10% threshold is to group development into higher densities on smaller areas—preferably areas that already have infrastructure in place and don't require, for instance, fresh roads. Cluster developments, which group houses in a smaller area while preserving large, natural tracts, can reduce imperviousness by a third.

There are countless steps we can take to mitigate the impact of sprawl on water quality. A few of the most important:

- Our local governments should follow the principles of the Washtenaw County master plan. This plan (discussed in the first article of the News series), seeks to preserve rural land and natural features while focusing growth in urban areas.
- We should encourage urban density. New housing should be located within areas already served by sewers, schools, and roads.
- Where growth into rural areas is unavoidable, we should change zoning ordinances to prevent cookie-cutter subdivisions that chew up open space, instead favoring cluster developments that preserve large tracts of land and wetlands.

Regional planning and cooperation are essential to achieving these goals. If we deal intelligently with the current onslaught of development, we have an opportunity to save vast amounts of money, beautiful riverscapes, a wonderful way of life—and our own drinking water. But to do so, we must change the way we grow.

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