

Is the well running dry?

Water everywhere, but are there fewer drops to drink?



Photos by John Strickler/The Mercury

After development is built, the ground it covers prevents rainwater from penetrating the ground, often exacerbating floods from heavy rains. Above, heavy rains in the summer of 2004 washed over streets in Stowe. While development is being constructed, run-off can overload nearby streams with sediment, as seen at left at a construction site in East Coventry.

What happens 50 years from now?

A “build-out” analysis of the entire Schuylkill River Watershed in which we all live was prepared by the Philadelphia Water Department last January.

Despite the building boom, it shows that currently, 40 percent of all land in the watershed is forest — the most efficient filter and protector of water quality produced by man or nature, according to experts.

Right now, only 7 percent of the watershed is the kind of suburban housing we see sprouting with increasing frequency along our once-rural back roads.

But things are changing fast.

If everything allowed by current zoning were “built out,” a full 54 percent of the watershed on which all drinking water in this region depends would be suburban sprawl. Forests would represent just 19 percent of the land.

This scenario, which would increase developed land in Montgomery and Berks counties by 1,000 to 2,000 percent and is possible within 50 years, would increase the fecal coliform bacteria in the Schuylkill River by 279 percent, the study found.

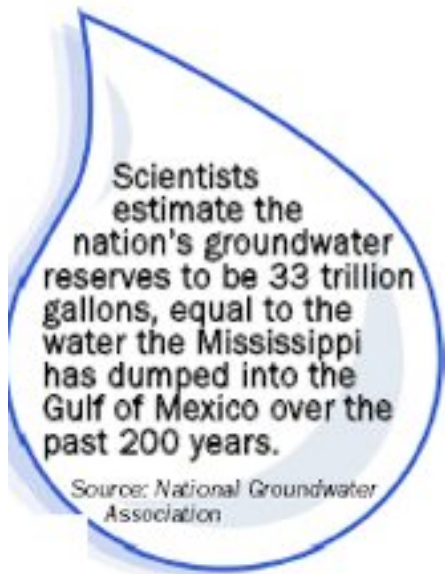
That’s bad news for the operators of the 54 water intakes, Pottstown included, along the river’s 100-mile course.

Contamination by cryptosporidium, the microbe that caused more than 400,000 illnesses and 50 deaths by contaminating the Milwaukee water supply in 1993 — the mere threat of which shut down the Pottstown water system last year — would jump by 24 percent under this scenario.

As a result of such a build-out, the price of treating and providing safe water to everyone would shoot through the roof.

“In the next 100 years, the biggest threat will be population growth and development. We can’t keep developing the way we are now,” said Christopher S. Crockett, manager of watershed with the Philadelphia Water Department

“If we do in the next 30 to 100 years what we did in the last 30 years, then the future won’t be looking so good,” he said.



Other straws

From 1900 to 1990, industry’s demand for water has increased by a factor of 25 worldwide.

According to the Delaware River Basin Commission, although its demands are declining, industry still comes in at a close third in terms water use in Delaware River of which the Schuylkill River Watershed is a part,

On the other hand, the demands of power plants and drinking water on our water supply, first and second in the Delaware Valley, are on the rise.

And while irrigation makes up a tiny portion of water demands here in the Delaware Watershed, it’s a different story in the rest of the world.

Out there, irrigation consumes 70 percent of the water used on Earth. Sadly, three-quarters of this water is lost to evaporation.

Hoekstra put it simply: “We have to live within nature’s check book. If you take out more than you put in, you’re going to bankrupt it.”

Sweeney agreed. “We have to start using water like we’re living on a sailboat,” he said.

Beyond the logistical problem of how much water we take out of the system, we face an equally serious problem regarding just what exactly we’re putting into our water.

It’s a long list, and it’s not reassuring.

Look and you’ll find out that everything from sediment to untreated sewage, from petrochemicals to coal silt, from arsenic to old medicines, from acid mine drainage to female hormones that are turning male fish into female fish are all being found in our drinking water with increasing frequency.

The problem, it seems, is more than just one of quantity, but also one of quality, although many say they are just two sides of the same issue, available clean water.

Said Sweeney, “a lack of water quality, adds to the shortage because you can’t use water that’s polluted.”

As “Water” author DeVilliers wrote in the introduction to his book, “The ways in which water has become imperiled, are not through the deliberate actions of evil men, the corporate rapists of ecological fantasy, but through the small doings of many —far too many — ordinary people, doing things the way they have always done them. That’s where the real danger lies.”