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Bottling Plan Pushes Groundwater to Center Stage in Vermont

By [FELICITY BARRINGER](#)

EAST MONTPELIER, Vt. — Hundreds of gallons of groundwater flow to the surface in rivulets here each hour, helping to create this town's signature spring, a lush current typical of northern New England. Just uphill, a meadow stretches to the doorstep of Daniel Antonovich, a businessman with plans to bottle and sell about 250,000 gallons a day from the spring.

The idea makes his neighbors nervous. Like two-thirds of Vermonters and 40 percent of all New Englanders, most residents of East Montpelier depend on wells for their water. Some worry that a water-bottling operation will compromise their ability to shower and flush; others just do not want their local water sold elsewhere.

In corners of [Vermont](#), once-reliable well-water supplies have become intermittent in recent years, with homeowners blaming local developers or mining operations or a bottling operation. In March, the town of East Montpelier postponed any bottling for three years. Three months later, in a move that put Vermont in the company of a growing number of states, the legislature approved a measure making the state's groundwater a public trust. Beginning in 2010, anyone seeking to pump more than 57,600 gallons a day will need a permit, with exceptions for farms, water utilities, fire districts and some geothermal systems.

Groundwater worries, long common in the arid West, have spread to the country's wettest areas (and few could be wetter than Vermont this summer). In recent years, aquifers have been drawn down around Chicago, Milwaukee and Atlanta. Water had to be trucked into the northern Vermont town of Montgomery last summer during a drought.

"Water is the resource of the 21st century," said Laurence R. Becker, Vermont's state geologist. "The amount of water that we use will increase, and we will be looking for fresh water in many places."

With the growing recognition that groundwater is not limitless, more states and localities are looking for ways to protect it. Maine, Massachusetts, Michigan and New Hampshire are at the forefront of this trend, and Vermont is now making its move.

The concerns of East Montpelier residents are reflected in the Great Lakes Resources compact, a broad water-management agreement already approved by the [United States Senate](#) and by eight Midwestern states and two Canadian provinces.

"Public policy makers are wrestling with legal systems designed in an era of abundance," said Andy Buchsbaum, director of the Great Lakes office of the National Wildlife Federation. "They were not designed to address shortages."

Virginia Lyons, a Democratic state senator in Vermont, believes that, given the possibility of a future in which water supplies may be constrained, “we’ve been doing things in an irrational way.”

“We make the assumption that just because you get so many gallons out of a well now, you will forever,” Ms. Lyons said.

Responding to groundwater debates from Williston (where neighbors fought over well water) to Danby (where residents opposed a mining operation), Ms. Lyons and State Senator Diane Snelling, a Republican, won passage this year of a measure declaring groundwater to be a commonly owned resource. In legal parlance, it becomes a public trust.

The new law notwithstanding, there are still few restrictions on using groundwater, but the new system is designed to help map it, measure it and apportion it. It puts home and farm uses of water at the front of the line in case of shortages and makes large-scale withdrawals, like those envisioned by Mr. Antonovich, who owns the land where the spring emerges, subject to new permits and monitoring.

Though Vermont is a relative latecomer in adopting a public-trust status for groundwater, Maude Barlow, a Canadian crusader against bottled water and the author of “Blue Covenant: The Global Water Crisis and the Coming Battle for the Right to Water” (New Press, 2008), argues that its new law, more than most of the others, anticipates the day when demand for groundwater outstrips supply.

“It’s no longer an under-the-radar issue,” said Jon Groveman, the general counsel of the Vermont Natural Resources Council. “There is now a sense that groundwater is finite and needs to be protected.”

In the past decade, commercial and industrial users, including golf courses, mines and, most notably, water bottlers, have faced increasing local opposition in damp regions from Maine to Wisconsin. Andrew W. MacLean, a lobbyist in Montpelier, the capital, who represents industries affected by the new legislation, said he believed that the law duplicated existing requirements, but that he did not want to oppose it.

“There was a recognition by people that something was going to pass,” Mr. MacLean said. “The desire by the business community was to play an active role and shape it as we were able.”

Early opponents, like farmers, mostly stayed on the sidelines when their water uses were grandfathered under the law.

Surface water in streams, lakes and rivers, has been legally managed for hundreds of years. But groundwater, until recent years, was often treated as something separate, hydrologically and legally. Both distinctions are now breaking down.

A 2007 report by the Ground Water Protection Council, a nonprofit group, pointed out that, although much is not known about exactly how groundwater moves through geological formations, it “typically moves very slowly.” Replenishment from rain or surface water, or “recharge” as the experts term it, tends to be gradual. Extraction of groundwater tends to alter the pattern and speed of natural flows, the report said.

Mr. Becker, the state geologist, said Vermont’s groundwater traveled along fractures in the rock, moving, in

effect, down a twisting series of underground tubes. Mapping a Vermont aquifer and measuring its contents is thus akin to tracing a [Jackson Pollock](#) painting — there are numerous units, of irregular dimensions, to delineate.

While some residents of East Montpelier worry that their wells may suffer if Mr. Antonovich's firm, the Montpelier Springs Water Company, opens for business, Mr. Antonovich said that he had had the aquifer mapped and that there was more than enough water for all.

Mr. Antonovich, a furrier in the New York area who has been vacationing in Vermont for half a century, said he did not plan to contest the three-year moratorium.

He and his anti-bottling neighbors like Carolyn Shapiro have maintained a relative cordiality, and that also typifies the debate over the public-trust law. Mr. Groveman, one of the bill's architects, drew praise not only from its legislative sponsors but also from Mr. MacLean, who represented the golf course and bottled-water industries.

The law, Senator Lyons said, commanded such broad support in part because it called for mapping and monitoring, not increased regulation. "It is a beginning," she said. Mr. Buchsbaum said he believed that the Vermont law could produce fairer and more comprehensive results when done before a crisis, or "we'll be trying to change our water laws in the context that the West is now."

"There is no water and they're trying to apportion droplets," he said of the West. "They're in the terrible position of trying to judge between needs that are all critical with not enough resources."

"We have the chance to get ahead of it," Mr. Buchsbaum said.

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