

GROUNDWATER WITHDRAWALS

Senate Bill 289 (Substitute H-2)
First Analysis (6-24-03)

Sponsor: Sen. Patricia L. Birkholz

**Senate Committee: Natural Resources
and Environmental Affairs**

**House Committee: Land Use and
Environment**

THE APPARENT PROBLEM:

Containing one-fifth of the world's fresh water, the Great Lakes are increasingly coveted as the world's human population climbs steadily, pollution increases, and conservation measures do not keep pace with development. One report published by Michigan Citizens for Water Conservation asserts that global demand for water doubles every 20 years. Because water scarcity has not been a problem for Michigan, however, the state does not regulate the quantitative withdrawal of water from either the surface of the lakes or from the underground aquifers that supply between 24 percent and 32 percent of the Great Lakes' surface water. (An aquifer is an underground water bed between rocks and soil that is recharged by rain and snow melt).

Absent regulation, Michigan landowners maintain virtually all rights to the water underneath their property. In the past three years, however, a number of water conflicts have arisen. In 2002, the Perrier Group of America, owner of the Ice Mountain brand of bottled water, built a water-bottling plant in Mecosta County and began pumping out groundwater at a rate of 130 gallons per minute. According to an article in the Detroit Free Press (5-5-03), the company plans to boost withdrawals to at least 400 gallons per minute. The group Michigan Citizens for Water Conservation has filed a lawsuit against the company, claiming that the withdrawals have harmed, or likely will harm, the environment and members of the citizens group. Further east, southern Saginaw County residents who live near large agricultural irrigators claim that their well levels and water pressure drop significantly during growing season, often leaving them without running water. Also, it is reported that groundwater supplies in several of Monroe County's townships regularly fail to meet the needs of many local residents. Drought and large groundwater withdrawals, particularly by

rock mining operations in the area, have caused significant drops in subsurface water levels there, allowing toxic elements, such as sulfur, to infiltrate private wells. Many Monroe County residents have been forced to import water for drinking and domestic use. According to the Department of Environmental Quality (DEQ), these withdrawals also threaten the water that replenishes the Great Lakes because groundwater supplies 67 percent of the water in streams that feed the Great Lakes.

Increased Great Lakes protection, including the regulation of water that feeds the Great Lakes, has been in the planning stages for a number of years. In 1985, the Great Lakes governors and Canadian premiers signed the Great Lakes Charter, a voluntary agreement through which the Great Lakes states and provinces cooperatively manage the waters of the Great Lakes. In June 2001, the governors and premiers reaffirmed their commitment to the health of the Great Lakes by signing the Great Lakes Charter Annex 2001 ("Annex 2001"). Annex 2001 focuses specifically on water withdrawals by outlining the basic principles that state and provincial governments should use when evaluating water withdrawal proposals. Annex 2001 also calls for coordinated standards that guide water use decisions toward the common goal of protecting and enhancing the Great Lakes ecosystem. Both the original charter and the Annex are nonbinding, and require statutory authority to be implemented. Also, any water withdrawal legislation must not conflict with the Interstate Commerce Clause of the U.S. Constitution or the provisions of various international trade agreements.

In August 2001, then-Senate Majority Leader Dan DeGrow created the Great Lakes Conservation Task Force, composed of five Republican and three Democratic state senators. Senator DeGrow charged

the task force with upholding Article IV, Section 52 of the Michigan Constitution, in which the legislature is required to: “provide for the protection of the air, water and other natural resources of the state from pollution, impairment and destruction”. Specifically, the task force was asked to recommend to the legislature policy changes that would improve the Great Lakes ecosystem. Chaired by then-Senator Ken Sikkema, the task force conducted eight public hearing throughout the State, took considerable oral and written testimony, and issued its report in January 2002. In its report, the task force recommended the following two policy changes to address aquifer protection, diversion, and water withdrawals: “1. The Legislature should enact comprehensive water withdrawal laws. This process may require a step-by-step approach, beginning with the enactment of an aquifer protection statute. 2. The Legislature should also promptly enact any implementation laws arising from the consummation of the Annex 2001 process.”

As a result of the task force report, Annex 2001, and the issues in Mecosta, Saginaw, and Monroe Counties, some people believe water withdrawals from Michigan aquifers should be regulated in statute.

[This problem statement, along with other sections of the analysis, are based on the analysis from the Senate Fiscal Agency dated 5-7-03.]

THE CONTENT OF THE BILL:

The bill would amend the Natural Resources and Environmental Protection Act (NREPA) to do the following:

- Require the Department of Environmental Quality (DEQ) to prepare a statewide groundwater inventory and map within two years after the bill’s effective date.
- Create the Groundwater Advisory Council within the DEQ to study the sustainability of the state’s groundwater use, monitor implementation the Great Lakes Charter Annex 2001, and make recommendations on statutory conformance with Annex 2001.
- Increase water use reporting fees for industrial, processing, and irrigation facilities with a capacity to pump over 100,000 gallons per day from \$50 to \$100.
- Allow money in the Water Use Protection Fund to be used for the groundwater inventory and map, and the groundwater dispute resolution program.
- Require farms with a capacity to pump over 100,000 gallons a day either to register with the DEQ and pay the water use reporting fee, or to submit a water use conservation plan to the Michigan Department of Agriculture (MDA), in which case registration and the fee would not be required.
- Require the MDA to use the information in the conservation plan to determine an estimate of water use and consumptive use data for each township in the state, and then forward the data to the DEQ for inclusion in the groundwater inventory and map.
- Require the DEQ, the MDA, and Michigan State University to validate and use a formula or model to estimate the consumptive use of withdrawals made for agricultural purposes.

The bill is tie-barred to House Bill 4087, which would require the DEQ Director or the MDA Director to investigate and resolve complaints about groundwater withdrawal conflicts.

100,000-Gallon Farms Registration. Beginning one year after the effective date, the bill would require that owners of farms register with the DEQ if the farms had the capacity to withdraw over 100,000 gallons of water per day average in any consecutive 30-day period from the waters of the Great Lakes basin.

Report. The bill provides that farms required to register with the DEQ must submit to the department an annual report by April 1 of each year, stating the amount of water withdrawn on an annual and monthly basis, the source of the water supply, the use of the water, and the amount of consumptive water withdrawn. If the source of the water withdrawn is groundwater, then the bill would require that this report also contain the location of the well or wells from which the water was withdrawn in latitude and longitude, with the accuracy of the reported location to within 15 feet; and, if the source of water were groundwater, the static water level of the aquifer or aquifers.

Fee. Currently, owners of facilities who file the required annual report must remit a water use reporting fee of \$50 to the DEQ. The bill would increase the fee to \$100, and require that the fee be remitted annually. The act provides that money collected from the fee be credited to the Water Use

Protection Fund, which the DEQ may use only for implementation and administration of Part 327 (Great Lakes Preservation). Under the bill, money in the fund also could be used for the preparation of the statewide groundwater inventory and map that would be required under the bill, as well as the administration of the groundwater dispute resolution program. The bill specifies that a water use reporting fee would not be required for a report or notification related to a farm that reported water under the Right to Farm Act.

Agricultural Facilities Conservation Plan. Currently, the term “irrigation facility” does not include irrigation for an agricultural purpose, which means that the registration, reporting, and fee requirements described above do not apply to agricultural irrigation facilities. The bill specifies that “irrigation facility” does not include a farm. The registration, reporting, and fee requirements would not apply, however, if the owner of a farm registered with the MDA by submitting the farm address and a water use conservation plan to the MDA, beginning one year after the bill’s effective date. The conservation plan would have to include, but not be limited to, all of the following information: the amount and rate of water withdrawn on an annual and monthly basis in either gallons or acre inches; the type of crop irrigated; the acreage of each irrigated crop; the source or sources of the water supply; if the water withdrawn is not used entirely for irrigation, then the use or uses of the water withdrawn; if the source of water were groundwater, the static water level of the aquifer or aquifers; and, applicable water conservation practices and an implementation plan for those practices. The MDA would have to use this information to determine an estimate of water use and consumptive use data for each township in the state. The MDA would have to forward the township water use and consumptive use data to the DEQ for inclusion in the statewide groundwater inventory and map.

Definition of “Agricultural Purpose”. Currently, the act defines “agricultural purpose” as the agricultural production of forestry, livestock, food, feed, or fiber. The bill would define it as the agricultural production of those plants and animals useful to human beings produced by agriculture, including forages and sod crops, grains and feed crops, field crops, dairy and dairy products, poultry and poultry products, cervidae, livestock, including breeding and grazing, equine, fish and other aquacultural products, bees and bee products, berries, herbs, fruits, vegetables, flowers, seeds, grasses, nursery stock, trees and tree products, mushrooms, and other similar products, or any other product, as determined by the Michigan

Commission of Agriculture, that incorporated the use of food, feed, fiber, or fur.

Groundwater Inventory and Map. Under the bill, the DEQ would have to use existing sources of groundwater data, where available, to prepare a statewide groundwater inventory and map within two years after the bill’s effective date. The department would have to use available groundwater data whenever it could do so, including information reported under the Safe Drinking Water Act. The DEQ could supplement the data through additional studies if the data were incomplete.

Following completion of the initial statewide groundwater inventory and map, the DEQ would have to update the inventory and map as new information became available. The department would have to include in the inventory and map data on all of the following:

- Location and water yielding capabilities of aquifers in the state.
- Aquifer recharge rates in the state.
- Static water levels of groundwater in the state.
- Base flow of rivers and streams in the state.
- Conflict areas in the state.
- Surface waters, including designated trout lakes and streams, and groundwater-dependent natural resources that were identified on the natural features inventory maintained by the Department of Natural Resources (DNR).
- The location and pumping capacity of all industrial, processing, or irrigation facilities required to be registered under the act, as well as the location of public water supply systems having the capacity to withdraw over 100,000 gallons of groundwater per day average in any consecutive 30-day period.
- Aggregate agricultural water use and consumptive use, by township.

The DEQ would have to make the map and inventory available to the general public.

Groundwater-Related Definitions. The bill would define “groundwater” as water below the land surface in a zone of saturation. “Aquifer” would be any water bearing bed or stratum of earth or rock capable of yielding groundwater to a water well in sufficient quantities that could be withdrawn. “Base flow”

would mean groundwater discharge to rivers and streams. “Conflict areas” would mean an aquifer or a portion of an aquifer in which the DEQ had determined that there was reasonable, scientifically based evidence of a pattern of groundwater withdrawal conflicts, or a single extended groundwater withdrawal conflict.

“Groundwater withdrawal conflict” would mean the failure of an existing water well that was constructed in compliance with Part 127 of the Public Health Code (Water Supply and Sewer Systems) to furnish its normal supply of groundwater because of a progressive decline of the static water level within the aquifer due to the withdrawal of groundwater from the aquifer by a high-capacity well or sump, as determined based on reasonable, scientifically based evidence. “Static water level” would mean the distance between the ground surface and the water level within a well that was not being pumped.

Advisory Council. The bill would create the Groundwater Conservation Advisory Council within the DEQ. The council would have to consist of all of the following members: three individuals appointed by the Senate majority leader representing business and manufacturing interests, utilities, and conservation organizations; three individuals appointed by the speaker of the House of Representatives representing well drilling contractors, local units of government, and agricultural interests; four individuals appointed by the director of the DEQ representing nonagricultural irrigators, the aggregate industry, environmental organizations, and the general public; and three individuals representing the DEQ, the MDA, and the DNR, as nonvoting members.

The council would have to do both of the following: 1) study the sustainability of the state’s groundwater use and whether the state should provide additional oversight of groundwater withdrawals, 2) monitor Annex 2001 implementation efforts and make recommendations about Michigan’s statutory conformance with Annex 2001, including whether groundwater withdrawals should be subject to best management practices or certification requirements and whether groundwater withdrawals had an impact on water-dependent natural features, and 3) study the implementation of the groundwater dispute resolution program.

Within two-and-one-half years after the bill’s effective date, the council would have to submit a report on its findings and recommendations to the Senate Majority Leader, the Speaker of the House,

and the standing committees of the legislature with jurisdiction primarily related to natural resources and the environment. The council would be disbanded effective six months after it submitted its findings and recommendations.

MCL 324.32701 et al.

HOUSE COMMITTEE ACTION:

The members of the House Committee on Land Use and Environment amended Senate Bill 289 (S-5)—the Senate-passed version of the bill—so that it would do the following:

- Include within a farm’s water use conservation plan, information about applicable water conservation practices and an implementation plan for those practices, as well as indicate that the plan need not be limited to the seven kinds of information specified in the bill.
- Specify that the Water Use Protection Fund could be used for the implementation and administration of the groundwater dispute resolution program (as well as for the preparation of the statewide groundwater inventory and map).
- Modify the definitions for the terms “conflict areas” and “groundwater withdrawal conflict” in order to adjust the legal standard of evidence by removing three words—“clear and convincing”—from the phrase “reasonable, clear and convincing, scientifically based evidence.” The phrase in both definitions would read, instead: “reasonable, scientifically based evidence.”
- Require the DEQ to use existing information, including information collected under the groundwater dispute resolution program, when it develops the statewide groundwater inventory and map (which must be completed within two years after the effective date of the bill).
- Specify that the three members of the Groundwater Conservation Advisory Council who would represent the DEQ, the MDA, and the DNR would serve as nonvoting members.
- Require the members of the council to study the implementation of and the results from the groundwater dispute resolution program.
- Require the council to submit a report to the legislature within 2½ years after the effective date of

the act (instead of within two years, as specified in the Senate-passed version of the bill).

FISCAL IMPLICATIONS:

According to the Senate Fiscal Agency, the bill's doubling of the current water use reporting fee from \$50 to \$100 annually would double the revenue from the fee from \$46,805 in fiscal year 2001-02 to \$93,610. According to data provided by the DEQ, the program requires approximately \$150,000 to operate. The remaining costs are supported by the General Fund.

The bill would require the development of a statewide groundwater inventory within two years of the bill's effective date. While maintenance of the database would be considered part of the program and factored into the fee structure, implementation costs could require additional appropriations. The bill would allow revenue from the water use reporting fee to be used for preparation of the statewide groundwater inventory. (Senate Fiscal Agency analysis dated 5-7-03)

ARGUMENTS:

For:

According to the report of the Great Lakes Conservation Task Force, "There is an immediate need for an aquifer protection statute to protect the public and the environment from both present and future problems caused by water withdrawals." The bill would take an important and manageable first step toward aquifer protection by building on the water use reporting procedure already in place. The creation of a statewide groundwater inventory and map would provide, for the first time, a complete picture of Michigan's complex hydrology. The proposed requirement that farms pumping over 100,000 gallons a day report their water use, just as other industrial, processing, or irrigation facilities must, would enable officials to compile comprehensive data for the inventory and map. With this information, state policy-makers could determine the scope of groundwater withdrawal issues and then create appropriate regulations.

Focusing on the creation of the map, inventory, and advisory council would lay the foundation for future water protection statutes. At the same time, House Bill 4087, to which the Senate bill is tie-barred, would create a process for addressing groundwater withdrawal conflicts, including authority for the DEQ

to restrict groundwater withdrawals under certain circumstances.

Response:

The Senate bill would not go far enough to protect aquifers or Michigan citizens from high capacity wells that harm fragile ecosystems. While a groundwater map and inventory may be administratively useful, they fall short of regulation. Meanwhile, the Perrier (Ice Mountain) bottling plant plans to more than double the rate at which it extracts water from the ground near the headwaters of the Little Muskegon River, which flows into the Big Muskegon River, which in turn flows into Lake Michigan. Most Michigan residents believe these waters are the heritage of citizens and the flora and fauna that grace the area. The water should be enjoyed and shared by all, not privatized and sold by a corporation.

Against:

The current water reporting system is faulty. According to the Michigan Groundwater Association, a professional association for well drillers, a relatively low percentage, between 10 percent and 25 percent, of the owners of 100,000-gallon facilities actually submit their water use report as required. The association believes the low reporting rates are due to lack of awareness of the requirement; an assumption by facility owners that if they have secured the appropriate local permits, their obligations have been met; and a lack of readily available reporting forms.

Against:

The bill would impose an unfunded mandate on the DEQ. The compilation of the statewide groundwater inventory and map would require hiring, for two years, five or six hydrogeologists to take the data submitted in the reports and overlay it on a map, and one geological information specialist to plot the data. Department officials estimate the initial cost of hiring these specialists to be \$1.7 million, an amount not covered by the proposed increase in water reporting fees. The bill's requirements should be contingent on appropriate funding, especially during the current budget crisis.

POSITIONS:

The Michigan Environmental Council supports the bill. (6-19-03)

The Michigan Townships Association supports the bill. (6-19-03)

The Michigan Aggregates Association supports the bill. (6-20-03)

The Michigan Chamber of Commerce supports the bill. (6-19-03)

The Michigan Forest Products Council supports the bill. (6-19-03)

Consumers Energy supports the bill. (6-19-03)

The Michigan Municipal League supports the bill. (6-19-03)

The Michigan Concrete Paving Association supports the bill. (6-20-03)

The Michigan Manufacturers Association supports the bill, but would prefer maintaining a 'clear and convincing' standard for defining groundwater conflicts. (6-19-03)

The National Wildlife Association supports the bill but would prefer uniform reporting and fee requirements for all users. (6-19-03)

The Farm Bureau does not oppose the bill. (6-19-03)

Analyst: J. Hunault

■ This analysis was prepared by nonpartisan House staff for use by House members in their deliberations, and does not constitute an official statement of legislative intent.