



**James M. Jeffords Center's  
*Vermont Legislative Research Service***

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**Ground Water Extraction**

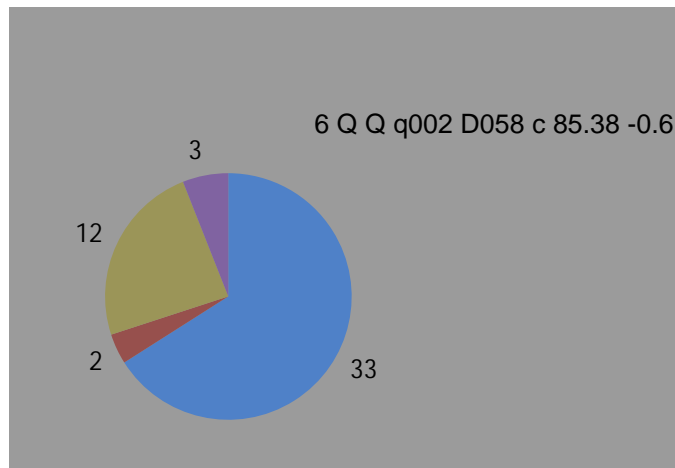
This report examines various groundwater extraction policies. Groundwater extraction is the process by which water found below the land surface is removed and then used for a variety of reasons including: personal, private,

Opponents of water privatization dispute such claims and advocate for water as a human right that should be left in the hands of the public.<sup>6</sup>

### State Policies on Ground Water Extraction

#### Vermont

Groundwater extraction in Vermont has become a vital issue in recent years. It is estimated by the Vermont Agency of Natural Resources (ANR) that as of 2008, 50 million gallons of groundwater are withdrawn every day.<sup>7</sup> The breakdown of the daily uses of groundwater extracted is depicted in Figure 1 below.



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drinking water. Forty six percent of the population extracts the water themselves, while 24 percent is supplied by public water systems that use groundwater.<sup>9</sup>

The idea of groundwater as a “public good” has been politicized in Vermont and has led to the enactment of laws that seek to define groundwater in these

purposes.<sup>14</sup> In 2007 the state adopted a statute which mandated that entities wishing to develop “significant groundwater wells” must get a permit from the state Department of Environmental Protection (DEP). The DEP is given authority to approve or deny these applications, and to define what extractions fall under this rule.<sup>15</sup> Additionally, Maine has a provision which requires the reporting of

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## **Michigan**

The constitution of the state of Michigan gives the state legislature the authority to regulate the withdrawal and uses

Minnesota, New York, Ohio, Pennsylvania, and Wisconsin, as well as the Canadian Provinces of Ontario and Quebec. The compact became both state and federal law in December 2008.<sup>30</sup>

This collaborative charter employs an "Adaptive Management approach to the conservation and management of basin water resources."<sup>31</sup> Adaptive Water Management calls for a "water resources management system that provides a systematic process for evaluating, monitoring and learning from the outcomes of operational programs and adjustment of policies, plans and programs based on experience and the evolution of scientific knowledge concerning water resources" and other natural resources dependent upon water.<sup>32</sup> Ultimately, this standard bearing charter serves as a sounding board for best practices surrounding water resource management. The collective members of the agreement, known as the Regional Body, agree that ensuring the proper management of their water resources, regardless of borders, is essential to the natural health of the region.

Another example is can be found in the creation of the International Joint Commission.

water as a commodity, yet it did not explicitly exempt water either.<sup>37</sup> All parties stated in 1993 that the agreement would not apply to water in its natural state.<sup>38</sup> In spite of this, some still fear that local, state, or federal governments might encounter difficulties should they attempt to regulate or prohibit large scale extraction and shipment of water. They argue that water, once it is bottled, or placed in some sort of other container, will become a commodity, which

largest in the state, as an important business and employer, and did not wish to jeopardize their relationship.<sup>44</sup> In 2011, a bill that would impose a penny per gallon tax is being considered in the Maine Legislature.<sup>45</sup> Advocates say it is necessary to provide the citizens a return on the use of their resources, and to decrease other taxes, while Poland Spring says the cost will be equivalent to one fifth of its annual payroll and would threaten jobs.

In Florida, former Governor Crist proposed a water severance tax in 2009, but that and a subsequent effort led by a state legislator in 2010 both failed due to unwillingness on the part of the leadership in the state legislature, and because of stiff opposition from industry groups, namely Nestle Water North America, which also owns Poland Spring.<sup>46</sup>

Many countries do impose such a tax. Baden Wurttemberg was the first German state to institute a water extraction fee, and now all other German states have either implemented similar policy or have pending legislation.<sup>47</sup> In Holland, the government had a main goal of raising revenue, but also a secondary aim of addressing environmental impacts from groundwater use. Groundwater provides roughly 70% of the drinking water, and is generally less expensive to get at. Therefore, the government attempted to incentivize the use of surface waters, such as water from rivers, for drinking water by placing a tax of .1785 Euros per square meter on extraction of groundwater. This has somewhat evened the distribution of drinking water between the two sources.

A study by the Policy Research Initiative of the Canadian government found that the competitiveness of Dutch industry was not significantly affected by the tax, and that industrial use of water had in fact dropped by somewhere between 2 and 12 percent.<sup>48</sup> This study also looked at the case of Denmark, which imposed a tax of .7 euros per square meter of groundwater volume. It found that this reduced the household use of water. Denmark exempts industry from the tax, and both countries exempt agriculture. According to the study, rates in France, England and Germany do raise revenue, but were deemed to be too low to change behavior, ranging from between .00071 to .006 euros per square meter.<sup>49</sup> The Pacific island of Fiji has announced in November, 2010 that it planned to raise its water extraction tax

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<sup>44</sup> U.S. Water News, "Group Plans water extraction tax, asks state support," August, 2010, accessed April 5, 2011, <http://www.uswaternews.com/archives/arcpolicy/4grouplan8.html>

<sup>45</sup> Ann Kim, "Poland Spring feels the heat in Augusta State House: Hearings focus on water tax, corporate rights," March 11, 2010, accessed April 12, 2011, <http://www.pressherald.com/archive/poland-spring-feels-the-heat-in-augusta-2009-05-04.html>

<sup>46</sup> Brett Ader, "Lawmakers resurrect proposal to tax bottled water," *The Florida Independent*, December 7, 2010, accessed April 5, 2011, <http://floridaindependent.com/16317/lawmakers-resurrect-proposal-to-tax-bottled-water>

<sup>47</sup> International Institute for Sustainable Development, "Water Taxes in Germany," accessed April 5, 2011, <http://www.iisd.org/greenbud/germany.htm>

<sup>48</sup> Government of Canada, Policy Research Initiative, Sustainable Development Briefing Note, "Do European Water Abstraction Taxes Affect Competitiveness," March, 2005, accessed April 13, 2011, [http://www.policyresearch.gc.ca/doclib/BN\\_SD\\_EuroWater\\_200503\\_e.pdf](http://www.policyresearch.gc.ca/doclib/BN_SD_EuroWater_200503_e.pdf)

<sup>49</sup> University College Dublin, School



from one third of a cent per liter to 15 cents per liter, prompting FIJI water to suspend its operations in the country.<sup>50</sup>

### Conclusion

Ground water extraction remains an issue among communities throughout the world, as they continue to develop policies that consider water either as a public good or commodity. However, the prevailing trend amongst all state legislation reviewed in this report is that water is a valuable public resource and it must be protected and managed to ensure its value in the future. The status of groundwater in the context of international trade remains unclear. NAFTA and WTO rules provide for the highly unregulated flow of goods between states.<sup>51</sup> Accordingly, it is possible that beverage corporations could use them to maintain unbridled commercial access to groundwater, even in the face of potential national and state legislation that attempts to bar such access. Taxation of water extraction, either to mitigate environmental harms or provide revenue, has proven to be a popular measure among many European countries, however this measure has largely failed to gain traction in the United States.

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Prepared in response to a request from Representative David Deen of Westmins0.0023Tc0.2250Td(sqM2.385007f0.0009