

# Groundwater and the Public Trust Doctrine in Wisconsin

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A Recommendation for Sen. Mark Miller

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## Introduction

Groundwater is a basic and critical resource for people living and doing business in Wisconsin. It provides something as simple as a drink of tap water for millions across the state, but it also provides sustenance for valuable commerce, industrial processes and agricultural needs in Wisconsin and across the United States. As increasing demand strains Wisconsin's and the planet's availability to sustain sufficient and clean groundwater, society will likely need to form governance structures to manage groundwater and ensure sustainable and vibrant societies, economies and ecosystems. In Wisconsin, this may be best done by including groundwater aquifers in the public trust doctrine.

## The Public Trust Doctrine

The public trust doctrine has been instrumental to the preservation of navigable surface waters since the passage of the Northwest Ordinance in 1787, but it dates at least as far back as the Roman Empire.<sup>1</sup> The doctrine was incorporated into the Wisconsin Constitution upon statehood in 1848.<sup>2</sup> In short, the public trust doctrine means Wisconsin holds navigable surface waters of the state in perpetual trust for public use. The doctrine also assures that citizens' rights to water quality and scenic beauty are protected.

There is some question how far the public trust doctrine extends. Traditionally, it applies only to navigable surface waters,<sup>3</sup> but those waters constantly change in Earth's water cycle. Although groundwater and surface waters may seem to be relatively distinct phenomena, surface waters and groundwater are closely related; surface waters may directly recharge groundwater aquifers<sup>4</sup>, and groundwater aquifers may reach the Earth's surface as springs, which feed into other surface waters or act as their own surface waters.<sup>5</sup>

Given the inextricable nature of surface waters and groundwater, the latter is already somewhat implicated by Wisconsin case law and by statutory designation as being worthy of protection under the public trust doctrine. In case law, the Wisconsin Supreme Court has ruled that the public trust doctrine requires the Wisconsin Legislature to restrict actions that harm public trusts but also act affirmatively to prevent harm to a trust.<sup>6</sup> This legislative duty extends to such potential harms as pollution,<sup>7</sup> which is generally understood as a pervasive danger to groundwater and surface waters alike. Statutorily, Wisconsin Act 310 (2003 Session) recently enacted rules for the management and oversight of high-capacity wells that extract more than 100,000 gallons per day from one property.<sup>8</sup>

Two U.S. states have also made strides in bringing groundwater under the public trust doctrine. The Hawaii Constitution requires the state to set up a water resources agency that "shall...protect ground and surface water resources."<sup>9</sup> The Vermont

Legislature considered in its 2005 session a proposal that would have declared groundwater as a public trust, required mapping of the state's groundwater resources, and established a committee to study potential regulatory programs.<sup>10</sup>

Another recent intergovernmental measure recognizing the importance of groundwater is the Great Lakes Compact, of which Wisconsin is a member party.<sup>11</sup> The compact cites "tributary groundwater" of the Great Lakes Basin as being part of a public trust.<sup>12</sup> This policy statement of the Great Lakes Compact, however, is disputed as fundamentally changing state law.<sup>13</sup> During deliberations of the Special Committee on Great Lakes Water Resources Compact, which was convened in 2006 to further Wisconsin's ratification of the Great Lakes Compact,<sup>14</sup> Wisconsin Department of Natural Resources (DNR) staff issued opinions that the Great Lakes Compact "does not change property rights or common law water rights" in signatory states.<sup>15</sup>

Despite that debate, it is clear that considerable political and legal thought now links the public trust doctrine and groundwater more than ever before.

### **Human Society and Economic Development**

Groundwater protection under the public trust doctrine is further justified when considering its role in human society. Groundwater represents 97 percent of the world's freshwater reserves, with just three percent held by lakes, rivers and streams on the Earth's surface.<sup>16</sup> Groundwater is critical just for the formation of communities, as it is the primary source of drinking water for one half of the U.S. population.<sup>17</sup> A lack of adequate clean groundwater could also impair simple economic activity. Agriculture, which is a major industry in Wisconsin, accounts for 63 percent of groundwater withdrawals nationwide for needs such as irrigation.<sup>18</sup> In spite of the problems created by a lack of groundwater, it is a classic open-access resource, and such resources that are open to all are also vulnerable to overexploitation—the "tragedy of the commons." Although symptoms of overuse are appearing in the Western U.S. and around the world,<sup>19</sup> it's happening in the Great Lakes as well. Lake Superior and Lake Michigan since 2000 have experienced low water levels not seen since the 1920s and the 1960s, respectively.<sup>20</sup> With groundwater's role in human consumption and numerous other life-sustaining activities, the availability and quality of groundwater is vitally important to future development across the state, as well as the viability of Wisconsin businesses.

### **The Precautionary Principle**

Given these concerns, it seems appropriate to bring groundwater under the public trust doctrine as a simple matter of applying the precautionary principle. The precautionary principle, quite simply, requires that activities with potential harms to environmental or human health be proven safe, rather than be presumed safe until scientific inquiry proves them harmful. One, for example, could describe Act 310 as

embodying the precautionary principle. It requires approval of high-capacity wells, and it allows permits to certain questionable high-capacity wells only after assessments that look for proximity to groundwater protection areas, for impacts on nearby springs, and for potentially significant withdrawal of water from an originating basin.<sup>21</sup> Adopting this approach to all aspects of groundwater management could strongly help sustain groundwater resources against all harms to quality and quantity, and help preserve groundwater for future generations.

### **Groundwater Precedent in Wisconsin and Other U.S. States**

Groundwater law in the United States has comprised five different legal doctrines for much of its history. These laws have been adapted and revised by each state as environmental protection, land use, demand, and growth needs have evolved.

**Common Law/Absolute Ownership Doctrine** This allows a landowner unlimited withdrawal of water underneath the property boundaries. Withdrawal may occur irrespective of the impact on other landowners. Several eastern states with considerable groundwater resources adhere to common law doctrine. Some western states adopted common law doctrine as well, but abandoned it as limited water resources rendered the system unsustainable.<sup>22</sup>

**American Rule/Reasonable Use Doctrine** The American rule doctrine limits withdrawals to what is “necessary for reasonable and beneficial purposes.”<sup>23</sup> Adjacent landowners enjoy protection of their own groundwater use under reasonable use doctrine, as groundwater cannot be wasted or appropriated off the land.<sup>24</sup>

**Correlative Rights Doctrine** This doctrine emerged as an alternative to the absolute rights/common law doctrine. The correlative rights doctrine gives all landowners above a common groundwater source equal or correlative right to “a reasonable amount of water for reasonable beneficial uses on their land.”<sup>25</sup>

**Prior Appropriation Doctrine** Prior appropriation allows a continuing right of appropriation to the first party putting water to beneficial use. Those making subsequent use of the water enjoy only junior rights.<sup>26</sup>

**Regulated Riparian System** The regulated riparian system is perhaps more statute-based than the legal systems listed above. Regulated riparian processes mandate that state agencies issue permits prior to a water withdrawal, with use privileges for reasonable use delineated for users by the explicit terms and conditions of the permit. Such a system ostensibly protects other users and the public interest. This system generally also allows water to be transferred to non-riparian lands.<sup>27</sup>

Wisconsin law embodies several of these doctrines. Act 310 contains substantial elements of the regulated riparian system, in that high-capacity wells require prior

approval from the DNR.<sup>28</sup> Prior to the passage of Act 310, the Wisconsin Supreme Court adopted the reasonable use doctrine for deciding groundwater disputes, having formerly used the common law doctrine.<sup>29</sup> In *State v. Michels Pipeline Construction* (1974), the Court limited the common law approach in light of considerably greater scientific understanding of the adverse effects of large-scale withdrawals on groundwater. In adopting reasonable use, the Court held:

“a possessor of land or his grantee who withdraws ground water from the land and uses it for a beneficial purpose is not subject to liability for interference by another unless (a) the withdrawal of ground water causes unreasonable harm through lowering the water table or reducing artesian pressure; (b) the ground water forms an underground stream (in which case other rules apply); and (c) the withdrawal of water has a direct and substantial effect upon the water of a watercourse or lake...”<sup>30</sup>

### **Recommendations**

At this time, we recommend new legislation that would bring the groundwater resources of the state under the public trust doctrine as elucidated in Article IX, Section 1 of Wisconsin Constitution and as formed by other parts of state law.

The form of the legislation is a matter for careful consideration. At this time, we do not recommend pursuing either the Hawaii (constitutional) or Vermont (committee) route. The Hawaii process of enshrining groundwater as a public trust in the Wisconsin Constitution does grant long-term strength and insulation of the measure from budgetary whims of future legislatures as well as from the prerogatives of co-equal branches of state government. Amending the Wisconsin Constitution requires approval of two legislative sessions, however, along with a statewide referendum. It is a long and difficult process, which gives opponents time to marshal resources against the measure. The Vermont route, conversely, doesn't require substantial action until a period of study has intervened, potentially allowing opponents within the government or outside interest groups to slow the measure before anything is implemented. This is no more evident than the Special Committee on Great Lakes Water Resources Compact. The committee adjourned in September after reaching no consensus on legislation for ratifying the Great Lakes Compact.<sup>31</sup>

The Wisconsin Statutes are left as the best route for a timely and reasonably strong envelopment of groundwater by the public trust doctrine. The statutes already protect groundwater in several chapters and sections. For example, Act 310 amends or otherwise changes chapters 20, 23, 281, 293, 299.<sup>32</sup> Chapter 160, “Groundwater Protection Standards,” also protects Wisconsin's groundwater quality.<sup>33</sup> We propose, however, incorporating the bulk of our new groundwater protection initiative within

Chapter 281, “Water and Sewage.” Although the language contained therein generally covers surface waters and many other water-related issues, the legislative statement of intent near the outset of the chapter captures many of the reasons we discuss above for wanting groundwater held in the public trust. (See Appendix 1.) Chapter 281 also contains the most applicable sections signed into law with Act 310.

We recommend placing adjacent to the policy statement contained Chapter 281, Subchapter II, a new subsection, presumably §281.115, which would read as follows:

**“281.115 Waters in trust.** Recognizing increasing scientific understanding of the interconnectedness of all water, it is the express policy of the state that all ground and surface waters of the state shall be held in trust to ensure their sustained quality and quantity. It is also the express policy of the state that the Legislature shall be trustee of the waters of the state, and that the state shall exercise its jurisdiction of the waters of the state in all cases by integrating the management of ground and surface water in state programs and regulations.”

To the degree that such a statement ought to assign responsibility and accountability to a state agency overseeing groundwater, we believe that is already accomplished in §281.11, which specifically calls on the DNR to be “the central unit of state government to protect, maintain and improve the quality and management of the waters of the state, ground and surface, public and private.”<sup>34</sup>

We do not believe that this new subsection of statute impinges upon any other sections of the statutes or the abilities. Chapter 281, despite regulating high-capacity wells, also contained provisions for local water utilities to build high-capacity wells in areas that are vulnerable to excessive groundwater withdrawal, albeit with conditions set by the DNR.<sup>35</sup>

## Conclusion

Because surface water and groundwater are so closely linked, Wisconsin can continue to protect all aspects of its groundwater by incorporating it into the public trust doctrine that has covered surface waters in Wisconsin even prior to the state’s founding. Wisconsin would be in the vanguard of states bringing about this policy expansion, true to the state’s tradition and reputation as a pioneering, forward-thinking state. It also has potential to make more sustainable Wisconsin’s relationship with its water resources. Bringing groundwater under the public trust doctrine would give the state increased responsibility in overseeing the health and quantity of all waters in the state for the benefit of all residents and visitors. It would protect the welfare of future generations and the well-being of their social, economic and ecological systems.

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<sup>1</sup> John Quick, "The Public Trust Doctrine in Wisconsin." *Wisconsin Environmental Law Journal* 1 (1994): 105, 106; Allan Kanner, "The Public Trust Doctrine, *Parens Patriae*, and the Attorney General as the Guardian of the State's Natural Resources," *Duke Environmental Law and Policy Forum* 16 (2005): 62-63.

<sup>2</sup> Quick, 106.

<sup>3</sup> Kanner, 83.

<sup>4</sup> Renee Gunn et al. "How Aquifers are Replenished." From "Groundwater Primer." (U.S. Environmental Protection Agency – Region 5 and Purdue University Agricultural and Biological Engineering Department) (8 May 1998.)

<<http://www.purdue.edu/dp/envirosoft/groundwater/src/geo6.htm>>

<sup>5</sup> Renee Gunn et al. "Where Does Water from Aquifers Go?" From "Groundwater Primer." (U.S. Environmental Protection Agency – Region 5 and Purdue University Agricultural and Biological Engineering Department) (8 May 1998.)

<<http://www.purdue.edu/dp/envirosoft/groundwater/src/geo7.htm>> (29 November 2007).

<sup>6</sup> Melissa Kwaterski Scanlan, "The Evolution of the Public Trust Doctrine and the Degradation of Trust Resources: Courts, Trustees and Political Power in Wisconsin," *Ecology Law Quarterly* 27: 148.

<sup>7</sup> Scanlan, 160-161.

<sup>8</sup> John Stolzenberg and Mark C. Patronsky, "2003 Wisconsin Act 310 [2003 Assembly Bill 926]: High Capacity Wells," (Madison, WI: Wisconsin Legislative Council, 17 May 2004), 1-2.

<sup>9</sup> Kwaterski, Sinykin and Krohelski, 48; Hawaii Constitution, Article XI, Section 7.

<<http://www.hawaii.gov/lrb/con/conart11.html>> (12 November 2007).

<sup>10</sup> Vermont General Assembly, "Legislative Documents,"

<<http://www.leg.state.vt.us/docs/legdoc.cfm?URL=/docs/2006/bills/intro/S-151.HTM>> (12 November 2007).

<sup>11</sup> Elizabeth Schmidt, "The Member State of Wisconsin," 19 November 2003.

<<http://www.glc.org/about/states/wisconsin.html>> (12 November 2007).

<sup>12</sup> Melissa Kwaterski Scanlan, Jodi Habush Sinykin and James Krohelski, "Realizing the Promise of the Great Lakes Compact: A Policy Analysis for State Implementation," *Vermont Journal of Environmental Law* 8, no. 1, (2006): 48-49.

<sup>13</sup> John Stolzenberg, in-person conversation with Paul Ferguson, Kathryn Reif and Christopher Olson, 30 November 2007.

<sup>14</sup> John Stolzenberg and Rachel Letzing, "Wisconsin Legislative Council Proposed Report to the Legislature: Special Committee on Great Lakes Water Resources Compact," Wisconsin Legislative Council, PRL 2007-20, 5 October 2007, 5. Accessed online at

<<http://www.legis.state.wi.us/lc/publications/prl/PRL2007-20.pdf>>.

<sup>15</sup> Chuck Ledin, "Response to "held in trust" language concerns," memorandum to John Stolzenberg and Rachel Letzing, 2 January 2007. Accessed online at

<[http://www.legis.state.wi.us/lc/committees/study/2006/GLAKE/files/jan02memo\\_dnr.pdf](http://www.legis.state.wi.us/lc/committees/study/2006/GLAKE/files/jan02memo_dnr.pdf)> (2 December 2007).

<sup>16</sup> Kanner, 85.

<sup>17</sup> Kanner, 84.

<sup>18</sup> "EPA > Water gt; Liquid Assets 2000: The Business of Clean Water," (8 March 2006).

<<http://www.epa.gov/ow/liquidassets/business.html>> (12 November 2007).

<sup>19</sup> Gary Bryner and Elizabeth Purcell, *Groundwater Law Sourcebook of the Western United States*, Natural Resources Law Center University of Colorado School of Law, 2003, 2-3.

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<sup>20</sup> NOAA Great Lakes Environmental Research Laboratory, "Water Levels of the Great Lakes," (Ann Arbor, MI: National Oceanic and Atmospheric Administration, July 2007), 1-2.

<<http://www.glerl.noaa.gov/pubs/brochures/lakelevels/lakelevels.pdf>> (3 December 2007).

<sup>21</sup> Stolzenberg and Patronsky, 2.

<sup>22</sup> Bryner and Purcell, 5.

<sup>23</sup> Bryner and Purcell, 5.

<sup>24</sup> Bryner and Purcell, 5.

<sup>25</sup> Bryner and Purcell, 5.

<sup>26</sup> Bryner and Purcell, 5.

<sup>27</sup> Chapman, M., Glasser, S., Gipsman, J., and Witte, L., *U.S.D.A. Forest Service Sourcebook of State Groundwater Laws in 2005*, USDA Forest Service, 2005, 8.

<sup>28</sup> Stolzenberg and Patronsky, 1.

<sup>29</sup> Chapman et al., 2005, p. 95.

<sup>30</sup> Chapman et al., 2005, p. 95-96.

<sup>31</sup> Stolzenberg and Letzing, 9.

<sup>32</sup> 2003 Wisconsin Act 310, Published 6 May 2004 (Vetoed in Part.) Accessed online at:

<http://nxt.legis.state.wi.us/nxt/gateway.dll?f=templates&fn=default.htm&vid=WI:Default&d=acts03&jd=top>.

<sup>33</sup> Wis. Stats., Chapter 160. Accessed online at <http://www.legis.state.wi.us/statutes/Stat0160.pdf>

<sup>34</sup> Wis. Stats., §281.11. Accessed online at <http://www.legis.state.wi.us/statutes/Stat0281.pdf>

<sup>35</sup> Wis. Stats., §281.34. Accessed online at <http://www.legis.state.wi.us/statutes/Stat0281.pdf>

## Appendix 1

**Wisconsin Statutes, Chapter 281**

Although the section deals generally with non-groundwater quality and groundwater quantity, Chapter 281 in the Wisconsin Statutes includes a broad statement of purpose dedicating the state, and specifically the Department of Natural Resources, to protection of the waters of the state. It's noteworthy that specific attention is paid to groundwater in the policy statement:

**“281.11 Statement of policy and purpose.** The department shall serve as the central unit of state government *to protect, maintain and improve the quality and management of the waters of the state, ground and surface, public and private.* Continued pollution of the waters of the state has aroused widespread public concern. It endangers public health and threatens the general welfare. A comprehensive action program directed at all present and potential sources of water pollution whether home, farm, recreational, municipal, industrial or commercial is needed to protect human life and health, fish and aquatic life, scenic and ecological values and domestic, municipal, recreational, industrial, agricultural and other uses of water. The purpose of this subchapter is to grant necessary powers and to organize a comprehensive program under a single state agency for the enhancement of the quality management and protection of all waters of the state, ground and surface, public and private. To the end that these vital purposes may be accomplished, this subchapter and all rules and orders promulgated under this subchapter shall be liberally construed in favor of the policy objectives set forth in this subchapter. In order to achieve the policy objectives of this subchapter, it is the express policy of the state to mobilize governmental effort and resources at all levels, state, federal and local, allocating such effort and resources to accomplish the greatest result for the people of the state as a whole. Because of the importance of Lakes Superior and Michigan and Green Bay as vast water resource reservoirs, water quality standards for those rivers emptying into Lakes Superior and Michigan and Green Bay shall be as high as is practicable.”<sup>1</sup> (emphasis added)

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<sup>1</sup> Wisconsin Statutes, Ch. 281. Accessed online at <http://www.legis.state.wi.us/statutes/Stat0281.pdf>.

## Appendix 2

### Supporters and Opponents

We believe currently there would be potentially multiple parties to support our proposal incorporating groundwater into the public trust. There would also presumably be many lined up against it.

**For** Environmental groups, including those advocating for Wisconsin surface waters and wildlife or wildlife habitat, may be the strongest groups in favour due to the strong interrelationship between surface waters and groundwater and the benefits that may accrue to surface waters and the species inhabiting surface waters.<sup>2</sup> There is evidence homeowners may support this proposal, as well. As some surface waters become impaired with poor management, the dying waters may make their properties less beautiful and less valuable.<sup>3</sup>

Interestingly and perhaps most importantly, there could be broad legislative support for our proposal if many legislators vote on this matter the way lawmakers during the 2003 Session did on Act 310. Act 310 passed the Assembly on a 99-0 vote and cleared the Senate with only one vote against.<sup>4</sup> It is too early to presume such overwhelming legislative support for this proposal at this time, however.

**Against** Agriculture and business organizations may be opposed to new groundwater laws, since they may perceive new rules as imposing potentially higher costs and hardship on their operations or limiting their use of natural capital necessary for their operations.<sup>5</sup> For example, regulations could conceivably impose per-capita limits on water use or further tighten the use of pesticides and other polluting substances. Business interests may also balk at possible testing of their land to provide information to regulators. There is also a possibility that environmental groups would support this measure in principle, but oppose particular iterations of bills that may not go far enough for their liking in protecting groundwater resources. This situation was observed during deliberations over Act 310.<sup>6</sup> Although state law currently limits the ability of local municipalities to have unfettered access to groundwater for inhabitants<sup>7</sup>,

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<sup>2</sup> Ron Seely (a), "Proposal aimed at managing groundwater," Wisconsin State Journal, 7 February 2004, sec. B; Ron Seely (b), "Critics say new well laws are inadequate," Wisconsin State Journal, 1 September 2001, sec. B.

<sup>3</sup> Ron Seely (c), "What was a lake now is a mudhole," Wisconsin State Journal, 1 July 2007, sec. A.

<sup>4</sup> Wisconsin Legislature, "History of Assembly Bill 926," <<http://www.legis.state.wi.us/2003/data/AB926hst.html>> (3 December 2007).

<sup>5</sup> Ron Seely (d), "Ground water proposal finds few friends at hearing," Wisconsin State Journal, 2 March 2004, sec. B.

<sup>6</sup> Seely (d), sec. B; Anita Weier, "Pols float groundwater bill," The Capital Times, 28 February 2004, sec. A.

<sup>7</sup> Wis. Stats., §281.11, annotation, *Village of Sussex v. DNR*, 68 Wis. 2d 187 (1975). Accessed online at <http://www.legis.state.wi.us/statutes/Stat0281.pdf>.

these municipalities could well be opposed to new a new law that they may perceive as further limiting their ability to manage and run municipal water utilities.

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