

## **SUMMARY OF WISCONSIN'S GROUNDWATER LAW**

### **1983 Wisconsin Act 410, Wisconsin's Comprehensive Groundwater Protection Act**

Wisconsin has a long history of groundwater protection. The first law is the 1983 Wisconsin Act 410, Wisconsin's Comprehensive Groundwater Protection Act, which created Chapter 160, Wisconsin Statutes. This law expanded Wisconsin's legal, organizational, and financial capacity for controlling groundwater pollution. Chapter 160 provides a multi-agency comprehensive regulatory approach, using two-tiered numerical standards, based on the premise that all groundwater aquifers in Wisconsin are entitled to equal protection. There are a number of major components to Wisconsin's groundwater quality protection program:

- 1) Standards: Under chapter 160, Wis. Stats., the Department of Natural Resources (DNR) must establish state groundwater quality standards based on recommendations from the Department of Health Services. Standard setting is a continuing process based on a priority list of substances detected in groundwater or having a high possibility of being detected, established by the DNR in conjunction with other state agencies. The state groundwater standards are contained in chapter NR 140, Wisconsin Administrative Code. For each substance there is an enforcement standard (ES) which determines when a violation has occurred and a preventive action limit (PAL) which is set at a percentage of the ES. The PAL serves as a trigger for possible remedial action.
- 2) Regulatory Programs: Once groundwater quality standards are established, all state agencies must manage their regulatory programs to comply. Each state regulatory agency must promulgate rules to assure that the groundwater standards are met and to require appropriate responses when the standards are not met. The state regulatory agencies are the DNR (waste and materials management, industrial and municipal wastewater, wetlands, remediation and redevelopment, and drinking water and groundwater); the Department of Safety and Professional Services (private sewage systems, petroleum product storage tanks and petroleum environmental clean-up fund); the Department of Agriculture, Trade and Consumer Protection (DATCP) (pesticide use and storage, fertilizer storage, and agricultural clean-up program and fund); and the Department of Transportation (DOT) (salt storage).
- 3) Aquifer Classification: One of the most important features of Wisconsin's groundwater law is an item that was intentionally omitted. When Wisconsin was debating the groundwater protection legislation, the U. S. EPA tried to develop a nationwide groundwater approach. A keystone of EPA's proposal was aquifer classification - each aquifer would be classified according to its potential use, value or vulnerability, and then would be protected to that classification level. Some aquifers would not be entitled to protection and might never again be usable for human water supply. Wisconsin opposed aquifer classification. The foundation of Wisconsin's groundwater law is the belief that all groundwater in Wisconsin must be protected equally to assure that it can be used for people to drink today and in the future.
- 4) Monitoring and Data Management: At the time the groundwater legislation was created, there was concern that Wisconsin needed a groundwater monitoring program to determine whether the groundwater standards were being met. Therefore, a groundwater monitoring program was created under s. 160.27, Wis. Stats. Money from the Environmental Fund has been used for problem-assessment monitoring, regulatory monitoring, at-risk monitoring, and management-practice monitoring, as well as establishment of a data management system for collection and management of the groundwater data.

- 5) Research: Although all state agencies must comply with the groundwater standards, the processes by which groundwater becomes contaminated, the technology for cleanup, the mechanisms to prevent contamination, and the environmental and health effects of the contamination are often not well understood. In addition, basic data on geology, soils, and groundwater hydrology is often not available. The UWS and the state agencies have recognized that additional efforts in these research areas are badly needed. The Governor and the Legislature included a groundwater research appropriation for the UWS beginning with the 1989-1991 biennial budget. Since 1992, the UWS, DATCP, DNR and Commerce have participated in a joint solicitation for groundwater-related research and monitoring proposals. (see <http://dnr.wi.gov/org/water/dwg/gcc/Research.htm>)
  
- 6) Coordination: In enacting the Comprehensive Groundwater Protection Act, the Legislature recognized that management of the state's groundwater resources was a responsibility divided among a number of state agencies. Therefore, the Groundwater Coordinating Council (GCC) was created to advise and assist state agencies in the coordination of non-regulatory programs and the exchange of information related to groundwater. The Council has been meeting since 1984.
  
- 7) Local Groundwater Management: The Comprehensive Groundwater Protection Act clarified the powers and responsibilities of local governments to protect groundwater in partnership and consistent with state law.
  - a. Zoning authority for cities, villages, towns and counties was expanded to "encourage the protection of groundwater."
  
  - b. Counties can adopt ordinances regulating disposal of septage on land (consistent with DNR requirements); cities, villages, or towns may do so, if the county does not. There is limited authority under NR 151 for adoption of local restrictions on land application of manure and waste.
  
  - c. Counties can regulate (under DNR supervision) well construction and pump installation for certain private wells.
  
  - d. Property assessors must consider the time and expense of repairing or replacing a contaminated well or water supply when assessing the market value of real property; they must consider the "environmental impairment" of the property value due to the presence of a solid or hazardous waste disposal facility.

**Wisconsin's Groundwater Protection Act, 2003 Wisconsin Act 310**

After several years of discussion on groundwater quantity issues in the state, and as the result of bipartisan legislative effort and support, significant groundwater quantity legislation - 2003 Wisconsin Act 310. This law expanded Wisconsin's authority to consider environmental impacts of high capacity wells and established a framework for addressing water quantity issues in rapidly growing areas of the state. Act 310 recognizes the link between surface water and groundwater, and the impact wells may have on groundwater quality and quantity.

The DNR received appropriations and positions to administer the new legislation in the 2005-2007 biennial budget and subsequently hired five staff in FY 07. These staff implemented new programs created by the law including well notification and fee collection, pumpage reporting,

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high-capacity well application review, data management, inspections, staff support for the Groundwater Advisory Committee (GAC), and development of a new administrative rule. The rule, Ch. NR 820, formally defines the extent of Groundwater Management Areas as required by Act 310 and also creates a mechanism for evaluating proposed high capacity wells to determine whether the well will have a significant environmental impact on springs, trout streams, outstanding and exceptional resource waters.

Major components of 2003 Wisconsin Act 310 include:

1) *Tracking well construction and water use.* As of May 1<sup>st</sup>, 2005, high capacity well owners must pay a \$500 application fee and must track the amount of water they pump on a monthly basis and submit an annual pumping report to DNR. For any new well that is not a high capacity well, the owner must notify DNR of the well location prior to construction and pay a \$50 well notification fee. Revenue from the fees supports the administration of Act 310, including tracking well construction, reviewing high capacity well applications, and collecting of groundwater data. Fee revenue also supports increased inspections and enforcement of well construction activities, further helping to ensure a safe drinking water supply. The law requires all high capacity well owners to report water use annually, including those with wells approved before enactment of the law. Collection of pumping data assists in evaluating proposed new wells, monitoring approval conditions, calibrating groundwater flow models, improving water use estimates, identifying trends, and contributes to a better understanding and management of groundwater resources throughout the state.

2) *Expanded regulation of high capacity wells.* The Act directs DNR to consider the environmental impacts (consistent with ch. NR 150, Wis. Adm. Code) associated with high capacity wells in the following situations:

- Wells located in a “groundwater protection area” (GPA) (an area within 1,200 feet of an Outstanding or Exceptional Resource Water or Trout Stream).
- Wells that may have a significant environmental impact on a spring with a flow of at least one cubic foot per second at least 80% of the time.
- Wells where more than 95% of the amount of water withdrawn will be lost from the basin.

3) *Designation of groundwater management areas.* The Act directed the DNR to establish two groundwater management areas, one in Southeastern Wisconsin and another in the Lower Fox River Valley. In these areas the water level of the deep sandstone aquifer has been drawn down more than 150 feet since pre-development. In the Lower Fox River Valley, this area includes Brown County and portions of Outagamie and Calumet Counties, while in Southeastern Wisconsin the area includes Waukesha, Kenosha, Racine, Milwaukee, and Ozaukee Counties, and portions of Washington and Walworth Counties.

The intention of the groundwater management area is to encourage a coordinated management strategy among the state, local government units, regional planning commissions, and public and private users of groundwater to address problems caused by over-pumping of the deep aquifer, including increased levels of radium, arsenic and salinity. The DNR will assist local government units and regional planning commissions in those areas as they undertake research and planning related to groundwater management.

4) *Creation of a Groundwater Advisory Committee.* The committee issued a report to the Legislature in December 2006 regarding groundwater management areas. The committee issued a second report to the Legislature in 2007 that assessed the effectiveness of Act 310 and considered changes to the regulatory framework applicable to high capacity wells. The GAC

concluded that Act 310 is working as originally intended as a first step in integrated water management. The GAC, while acknowledging that more work remains to build upon initial improvements in groundwater management provided under Act 310, also recognized that the law has provided an added level of environmental protection for trout streams, outstanding resources waters, exceptional resource waters and springs. The 2007 report contains extensive recommendations and alternatives for enhancing the effectiveness of Act 310. Pursuant to Act 310, the GAC was terminated at the end of 2007 following submittal of its second report to the Legislature.

### **Great Lakes Compact and 2007 Wisconsin Act 227**

The Great Lakes – Saint Lawrence River Basin Water Resources Compact (Compact) took effect on December 8, 2008 after Wisconsin and the other Great Lakes states ratification of the Compact and the U.S Congress subsequent consent of the state’s ratification.

The Compact is the legally binding implementation for the Great Lakes states of the Great Lakes – Saint Lawrence River Basin Water Resources Agreement (Agreement), signed in December 2005 by the Great Lake states, Ontario and Quebec. The Agreement, a good faith pact among the states and provinces, parallels the Compact, but lacks enforceability because states cannot enter into legally binding treaties with foreign governments.

The Compact addresses water quantity management in the Great Lakes – Saint Lawrence River Basin (Basin). It sets out requirements for Basin water uses in the areas of registration, reporting, management, and water conservation and efficiency. It also prohibits diversions of Basin water with limited exceptions for straddling communities, communities in straddling counties and intra-basin transfers (transfers of water from one Great Lake basin to another).

Under the Compact, states are required to develop a program for managing Basin withdrawals from groundwater and surface water, that relies on a decision-making standard for new or increased withdrawals. States are also required to develop and implement a Basin water conservation and efficiency program. These programs are to be reviewed on a regular basis by a body comprising the governors of the Great Lakes states and the premiers of the Canadian provinces of Quebec and Ontario. The Compact also calls annual reports on Basin water use and periodic assessments of cumulative impacts to the Regional Body.

Wisconsin’s legislation implementing the Compact—2007 Wisconsin Act 227—is extensive. Act 227 calls for statewide registration of existing and new water withdrawals with the capacity to withdraw more than 100,000 gallons per day averaged over 30 days. Withdrawals over 100,000 gallons per day averaged over 30 days must be reported annually (existing state statutes already require this reporting for groundwater withdrawals; however, most surface water withdrawals, other than municipal, were not reported prior to 2010). This requirement applies statewide. Initial withdrawal amounts from 2008 are the basis for determining if a proposed increase in a withdrawal exceeds the threshold for applying a decision-making standard.

Act 227 directs that Basin withdrawals over 100,000 gallons per day averaged over 30 days require a permit. General permits are issued for withdrawals of 100,000 gallons per day or more averaged over 30 days; individual permits are issued for withdrawals exceeding 1 million gallons per day for 30 consecutive days. Water use permits (both general and individual) establish the authorized withdrawal amount, as well as requirements for reporting and water conservation. General permits have a 25-year term; individual permits have a 10-year term.

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Act 227 requires that the DNR develop and implement a water conservation and efficiency program with voluntary measures to apply across the state, additional mandatory elements that apply in the Great Lakes Basin, and the most stringent requirements for communities applying for diversions or water uses with high rates of water loss.

An additional element of the new legislation is the requirement for water supply service area plans. Act 227 requires all municipalities with water supply systems that supply more than 10,000 people to have an approved water supply plan by 2026. This planning process is modeled after the wastewater planning process and uses a cost-effectiveness analysis that assesses the environmental and economic impacts of alternatives in the plan to determine the approach that maximizes environmental benefits and minimizes total resource costs over the planning period.

State Water Use Report – Act 227 also requires the department to develop a statewide water resources inventory and publish a state water use report every five years.

### **Lake Beulah Supreme Court Case**

In July 2011, the Wisconsin Supreme Court issued its decision in the case of Lake Beulah Management District v. State Department of Natural Resources. To briefly summarize, the Court reached the following conclusions:

The Court held that, “pursuant to Wis. Stat. § 281.11, § 281.12, § 281.34, and § 281.35 (2005-06), along with the Legislature's delegation of the State's public trust duties, the DNR has the authority and a general duty to consider whether a proposed high capacity well may harm waters of the state. Upon what evidence, and under what circumstances, the DNR's general duty is implicated by a proposed high capacity well is a highly fact specific matter that depends upon what information is presented to the DNR decision makers by the well owner in the well permit application and by citizens and other entities regarding that permit application while it is under review by the DNR.

The Court further held that “to comply with this general duty, the DNR must consider the environmental impact of a proposed high capacity well when presented with sufficient concrete, scientific evidence of potential harm to waters of the state. The DNR should use both its expertise in water resources management and its discretion to determine whether its duty as trustee of public trust resources is implicated by a proposed high capacity well permit application, such that it must consider the environmental impact of the well or in some cases deny a permit application or include conditions in a well permit.”