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Chapter F

Environmental Protection

Though elements of Wisconsin's environmental protection programs and laws existed prior to Earth Day in April 1970, that event and subsequent publicity caused environmental protection to become a generally recognized function of the state and federal government. There is no single description of what constitutes an environmental protection program. These programs generally are designed to protect or improve the quality of the environment, that is, air, land, and water resources, in order to reduce or eliminate harmful effects on human health, plants, other animals, or property. Since there is some ambiguity in this classification, the reader should also consult chapters in this book on natural resources and agriculture for information on other programs that could be classified as "environmental protection" in those other issue areas.

This chapter is divided into two main parts. The **first part** identifies some of the major features of environmental protection programs in Wisconsin. The **second part** briefly describes a number of major state environmental programs.

Major Features of Environmental Protection Programs

Wisconsin's environmental protection programs have developed incrementally over the last 30 or so years in response to specific problems or issues. In some cases, such as the Groundwater Protection Law, initiative for the program arose at the state level. In other cases, such as the water pollution discharge elimination system (WPDES), the state program was a response to federal mandates.

This incremental program development is a major reason for the wide variation in the design and implementation of the state's environmental protection programs. These variations include the following:

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- The focus of the programs vary, some dealing with a particular medium, i.e., air, water, or land; some with a particular industry, e.g., the metallic or nonmetallic mining industry; and some with particular materials, e.g., ozone forming refrigerants.
- The programs vary in the methods used to achieve the objectives, including the use of regulations, education, technical assistance, planning, or financial assistance, or a combination of these measures.
- The division of responsibility for design and implementation of the programs varies by program. In some cases, a state agency is responsible for the entire administration of the entire program. In other programs, local governments implement the programs based on state standards and using state technical and financial assistance.
- A number of agencies, in addition to the Department of Natural Resources (DNR), are responsible for administering Wisconsin's environmental protection programs. These agencies include the Departments of Agriculture, Trade and Consumer Protection (DATCP), Health Services (DHS), and Commerce, and the Public Service Commission (PSC).
- In situations where there is a national environmental program created by federal law, the federal program usually does the following:
 1. Creates minimum national standards with which the state program must comply.
 2. Delegates planning and program administration responsibilities to the states while retaining oversight over the state programs and the ability to enforce the federal standards.
 3. Provides significant financial support of the state agency programs.

One issue that may be addressed by the state Legislature in implementing a federal environmental program with minimum standards is whether or not any state regulatory standards established under the state counterpart to the federal program may be more stringent than the federal standards.

Examples of major federal laws include the Clean Water Act (CWA), the Clean Air Act (CAA), the Resource Conservation and Recovery Act, and the Safe Drinking Water Act.

Major Features of State Environmental Programs

Air

Clean Air Act Permits

Much of the state's air pollution program is designed to implement the federal CAA. The U.S. Environmental Protection Agency (EPA) has established national ambient air quality standards for six principal pollutants: carbon monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃), particulate matter, sulfur dioxide (SO₂), and lead. For a particular air pollutant, the EPA identifies regions within each state where the standard is not met based upon ambient air quality monitoring data collected by the state. These areas are called "nonattainment areas." (See the glossary at the end of this chapter for the formal definition of a nonattainment area.) The remainder of the state is identified as an "attainment area" for that pollutant.

Under the CAA, nonattainment designation results in the state being required to prepare a “state implementation plan” or SIP that demonstrates how the state will attain and maintain this standard.

Ozone

In April 2004, EPA designated the following counties in Wisconsin as nonattainment areas for the eight-hour ozone standard: “basic” nonattainment areas—Door, Kewaunee, and Manitowoc; and “moderate” nonattainment areas—Sheboygan, Washington, Ozaukee, Waukesha, Milwaukee, Racine, and Kenosha. Subsequently, in May 2008, EPA redesignated Kewaunee County to attainment of the 1997 eight-hour ozone standard.

DNR submitted its ozone plan to EPA in September 2009 along with a request to redesignate all of the remaining nonattainment areas to attainment of the 1997 eight-hour ozone standard. On April 27, 2010, EPA redesignated Door and Manitowoc Counties to attainment. However, EPA has not acted on the redesignation request for the moderate nonattainment areas nor have they acted on the attainment plan. EPA has indicated that there may be deficiencies in several of the state’s rules to control volatile organic compound emissions from certain industrial sources. These deficiencies are delaying EPA action on the redesignation request and the attainment plan.

In March 2008, the EPA promulgated a new, more restrictive, eight-hour ozone standard. EPA was asked to reconsider the standard, which they are doing. On January 6, 2010, EPA proposed a range for the new standard that is even more restrictive than the 2008 standard. According to their schedule, EPA will finalize the new standard on August 31, 2010, finalize nonattainment designations in August 2011, and require attainment plans by December 2013. Attainment dates may be as early as 2014, but the attainment dates will vary based on the severity of the ozone problem.

Fine-Particles

In September 2006, the EPA tightened its national ambient air quality standard for fine-particles measured over 24 hours, while retaining its 1997 annual fine-particle standard. These actions trigger the process in the CAA for the designation of nonattainment areas. In December 2009, EPA designated a three-county area in Wisconsin—Milwaukee, Racine, and Waukesha Counties as a nonattainment area for the 2006 24-hour, fine-particle standard. Attainment plans are due to EPA in December 2012.

Visibility Protection

In 1999, the EPA issued a regulation under the CAA to improve the visibility in 156 national parks and wilderness areas. Part of this regulation requires states, including Wisconsin, to impose the requirement of “best available retrofit technology” (BART) on large existing sources of SO₂, nitrogen oxide (NO_x), and particulate matter in the state. DNR staff have identified eight large power plants and as many as five large industrial facilities that are subject to this requirement under EPA’s criteria. Additionally, the state must prepare a plan to demonstrate how emission reductions in Wisconsin will contribute to “reasonable progress” toward the national visibility goals.

DNR is presently engaged in data collection, technical evaluation, and modeling as the basis for control strategies to bring Wisconsin’s ozone nonattainment areas into

attainment and to control regional haze. These plans will incorporate planning and control strategies based on a combination of the following four levels of effort:

- Nationwide programs, such as EPA's NO_x emission limits for nonroad diesel engines and NO_x reasonably available control technology requirements for major stationary sources;
- Large regional programs, such as EPA's Clean Air Interstate Rule (CAIR) which established NO_x and SO₂ emission limits for power plants in 28 eastern states;
- Regional agreements; and, if needed,
- State plans and controls, including the mercury-multipollutant rule described above.

The DNR was required to submit its regional haze plan, including final BART requirements and a "reasonable progress" plan to EPA by December 2007. According to DNR staff, the department will likely submit its regional haze plan to EPA by December 2010.

Clean Air Interstate Rule

The CAA prohibits emissions in one state from significantly contributing to nonattainment or interfering with maintenance of an air quality standard in a downwind state. In March 2005, EPA finalized the CAIR to limit such impacts on ozone or fine-particle nonattainment areas in the Eastern United States. The rule regulated SO₂ and NO_x emissions from power plants in 28 states (including Wisconsin) and the District of Columbia.

However, a December 2008 court ruling remanded the CAIR to EPA and directed EPA to develop a replacement rule. In July 2010, EPA proposed a replacement rule, referred to as the Transport Rule. The proposed Transport Rule again targets power plants in the Eastern United States and includes three additional states not originally included in CAIR. EPA expects to finalize the Transport Rule in June 2011.

Sulfur Dioxide

In June 2010, EPA revised the SO₂ ambient air quality standard to make it more protective of public health. The new standard is based on one-hour average SO₂ concentrations. Based on the most recent SO₂ monitoring data, the monitor in Rhinelander is measuring violations of the new standard. However, EPA will not finalize SO₂ nonattainment area designations until June 2012.

Unlike ozone and fine-particles, SO₂ problems usually result from local sources, which is the case in Rhinelander. DNR will work with the local sources in Rhinelander to develop a control program that will bring the area into attainment.

Nitrogen Dioxide

In January 2010, EPA revised a new NO₂ ambient air quality standard. All of the current NO₂ monitoring in the state indicates that we are attaining the new standard. However, EPA is requiring NO₂ monitoring next to major roadways in the state. After enough near-roadway NO₂ monitoring data are compiled, EPA will designate NO₂ nonattainment areas.

State statutes direct DNR to establish state ambient air quality standards, new source performance standards for stationary sources, emission standards for hazardous air pollutants, and other types of emission limitations. In general, these standards and limitations must be similar to and not more restrictive than the corresponding federal standard or guidance specified by the EPA. Acting under its state authority, the DNR has gone beyond federal standards by promulgating state limitations for certain hazardous air pollutants not regulated by the EPA as hazardous air pollutants.

2003 Wisconsin Act 118 prohibits the DNR from submitting a control measure or strategy as part of a SIP unless the DNR has promulgated the measure or strategy as a rule. In addition, this Act requires the DNR to submit a report to the environment committees in the Legislature that describes the proposed SIP and contains all the supporting documents that the DNR intends to submit with the plan. This report must be submitted to the committees at least 60 days before the DNR submits the plan to EPA. If a chairperson of the committee receiving the report submits written comments on the report to the DNR within 30 days after receiving the report, the Secretary of DNR must respond to the chairperson within 15 days of receipt of the comments.

In 2004, the DNR established requirements to reduce mercury emissions from major electric utilities by 40% by January 1, 2010, and by 80% by January 1, 2015, beneath their baseline amounts. These requirements also set procedures for calculating annual mercury emissions from other large stationary sources and direct new or modified stationary sources of mercury emissions to install "best available control technology" for these emissions.

Following expiration of the Legislature's review period, the DNR subsequently revised its mercury rule in late 2008. The revisions have been referred to as the mercury-multipollutant rule. Among other features, the revisions require large electric generating units to achieve a 90% mercury reduction or the specified limit on mercury emissions. Owners and operators of these units have an option of meeting these requirements by January 1, 2015, or six years later, if the owner or operator achieves specified reductions of NO_x and SO₂ emissions by January 1, 2015.

The CAA also requires states to implement an air pollution permit program for large stationary sources. Wisconsin statutes apply the Wisconsin air pollution permit program to smaller sources of air pollutants. As a result of an internal review process and directives in 2003 Wisconsin Act 118 and 2005 Wisconsin Act 28, the DNR has streamlined its air pollution permit program, especially for smaller sources or sources with low actual or potential emissions. The Act also directs the Department of Administration (DOA) to prepare a report that identifies major regulatory barriers to the growth of the manufacturing sector in Wisconsin.

Water

Clean Water Act Permits

The state has established a number of regulatory, technical assistance, and financial assistance programs to address different types of water pollution. Many of these programs can be distinguished by whether they address "point sources" or "nonpoint sources" of water pollution. Point sources are discrete and discernible; nonpoint sources are diffuse.

State statutes direct the DNR to promulgate effluent limitations, standards of performance for new sources, toxic substances effluent standards or prohibitions, and pretreatment standards for all classes of **point sources** for which the EPA has

established such standards. In general, these state standards and associated requirements, such as for monitoring, must comply with and not exceed EPA's requirements under the CWA. Effluent limitations based on water quality standards required under CWA and set by the department may be more stringent.

Under CWA, no person may discharge pollutants into navigable waters of the United States unless the discharge is done under a permit. The DNR administers the state version of this permit program, WPDES permits, in accord with applicable federal requirements. These permits apply not only to discharges from industrial facilities and public wastewater treatment facilities but also to discharges from large animal feeding operations.

The state **Clean Water Fund Program** provides financial assistance, primarily in the form of loans, to municipalities for planning, designing, and constructing municipal wastewater treatment and other water pollution abatement facilities. The program is funded by both state and federal initiatives.

Working under their respective authorities, DNR and DATCP have established a number of programs to address polluted runoff from **nonpoint sources** of water pollution. These programs address a number of types of polluted runoff from urban and rural land use activities including storm water management, construction site erosion control, and agricultural "best management practices." The programs include a combination of performance standards and prohibitions, technical assistance, permitting, and cost-sharing grants.

In addition to the above programs, the state has established programs that relate to the siting, design, construction, operation, and servicing of **private on-site wastewater treatment systems (POWTS)**, such as septic tanks and holding tanks. Administrative rules promulgated by Commerce, known as Comm 83 based on the chapter in the administrative code containing the rules, set statewide standards for the design, construction, maintenance, and management of POWTS. These standards are generally implemented and enforced by counties.

Commerce also administers the Private Sewage System Replacement or Rehabilitation Grant Program, also referred to as the Wisconsin Fund. This program provides financial assistance to eligible home and small business owners for part of the cost of repairing or replacing their failing POWTS. Most counties assist on a voluntary basis in implementing this program.

The DNR has established standards for servicing POWTS and related facilities such as portable restrooms, and the use and disposal of wastewaters from these systems. After being pumped by a licensed operator, septage must either be discharged into a municipal sewage system (also known as a Publicly Owned Treatment Work or POTW), or into another facility for treatment or storage under a WPDES permit, or applied to approved agricultural lands.

Drinking Water

The DNR administers a number of programs to ensure the safety and reliability of public and private water supplies, including those identified below. These programs are designed to conform with the federal Safe Drinking Water Act.

Plan approvals. Before a new community water system may be built or an existing community water system improved or extended, the plans and specifications for these activities must be approved by the DNR. The DNR also approves wellhead protection plans for new wells serving municipal water systems. These plans are

designed to prevent contaminants from entering the area of land around a public water supply well from which the well receives recharge waters.

Capacity development. Before a new community water system may be placed in service, it must receive a capacity certification from the DNR. As noted in DNR publications, “capacity development is the process of water systems getting and maintaining adequate funding, management, infrastructure, and operations so they can provide safe drinking water consistently and cost-effectively.” This program focuses on assisting owners and operators of small water systems who are less likely to have this capacity.

Safe drinking loan program. The DNR and DOA jointly administer this program which provides loans to general purpose local governments and special purpose districts for projects to plan, design, construct, or modify public water systems. Since this program is capitalized with federal funds, one of the conditions for a loan is that the project must “facilitate compliance” with national primary drinking water standards.

Water system standards, monitoring, and operation. The DNR has established drinking water standards and related monitoring and reporting requirements for public water systems, as well as minimum operating and maintenance requirements for community water systems.

Operator certification. DNR regulations specify an examining program for the certification of operators of different types of public water systems.

Well construction and pump installation. The DNR has established standards for construction of private wells and the installation of pumps in these wells.

Underground injection wells. This program is intended to protect groundwater used as a source of drinking water from contamination from injection wells. Current DNR regulations prohibit the construction of most types of injection wells.

In addition to the above regulatory and associated technical assistance programs, the DNR also administers the state’s **Well Compensation Program**. This program provides financial assistance to replace, reconstruct, or treat contaminated residential or livestock water supplies.

Groundwater Management

Groundwater Quality

The “Groundwater Protection Standards” law sets up a comprehensive system for identifying undesirable groundwater contaminants; establishing concentration standards for contaminants which may be present in groundwater; and providing for a control mechanism. The system has the following principal steps:

Identification of substances. Each regulatory agency of the state, defined as the DATCP, Commerce, DNR, and Department of Transportation, and any other state agency that regulates activities, facilities, or practices related to substances that have been detected in or have a reasonable probability of entering groundwater, is required to submit to the DNR a list of substances that either have been detected in, or have a reasonable probability of entering, the groundwater of the state and are related to activities within the agency’s authority to regulate. The DNR places each substance reported to it into one of three categories based on whether the substance has been detected in groundwater and the severity of the threat posed by the substance for purposes of determining the priority in which standards will be established.

Setting standards. The DNR divides the substances submitted to it into those that are of public health concern and those that are only a concern to the general public welfare. Substances of public health concern are submitted to the DHS for its recommendation as to appropriate enforcement standards. Once the DHS formulates its recommendations, the DNR promulgates enforcement standards for the particular substance.

An “enforcement standard” is a numerical expression of the concentration of the substance in groundwater. The law requires that existing “federal numbers” (such as a federal drinking water standard) be used as enforcement standards, unless a federal number does not exist for a particular substance or unless specified conditions allowing the establishment of an enforcement standard other than the federal number are met.

The DNR must also promulgate a “preventive action limit” for a substance for which an enforcement standard is established. The preventive action limit is a concentration of the substance which is either 10%, 20%, or 50% of the enforcement standard for the substance, with the 10% level required for carcinogenic substances.

Application of standards. Enforcement standards define when a violation has occurred. When a substance is detected in groundwater in concentrations equal to or greater than its enforcement standard, the facility, activity, or practice which is the source of the substance is subject to immediate enforcement action.

The preventive action limit for a substance functions as a “warning” to assess the need for regulatory responses when a substance is detected in groundwater. When a preventive action limit is attained or exceeded, some regulatory response may be necessary. At a minimum, the regulatory agency governing the facility, activity, or practice causing the substance to enter groundwater is required to evaluate the situation and take appropriate action.

Each regulatory agency must promulgate rules that set forth the range of responses it may take when a preventive action limit or enforcement standard is attained or exceeded. Further, the law generally requires prohibition of an activity or practice when an enforcement standard is violated.

Groundwater Quantity

A major revision of the state law regulating high capacity wells was enacted as 2003 Wisconsin Act 310. A “high capacity well” is a well that, together with all other wells on the same property, has a capacity of more than 100,000 gallons per day.

Act 310 sets standards and conditions for approval of high capacity wells by the DNR and other requirements for the management of the use of groundwater. Part of the new regulatory system for new high capacity wells created by the Act requires the DNR to review the environmental impact of certain designated wells and, in general, ensure through conditions imposed upon their approval that these wells will not cause a significant environmental impact. These designated wells include a high capacity well that meets any of the following conditions:

- Is proposed in a “groundwater protection area.” (The Act defines these areas to be an area within 1,200 feet of an outstanding or exceptional resource water or any class I, II, or III trout stream as designated by the DNR, but excluding trout streams that consist of a farm drainage ditch with no prior stream history.)
- May have a significant environmental impact on a large spring.
- Where more than 95% of the amount of water withdrawn will be diverted from the basin or consumed.

Great Lakes Compact Law

The endorsement of the Great Lakes-St. Lawrence River Basin Water Resources pact (the “compact”) by the governors of the eight Great Lakes states in December 2005 led to an extensive review and consideration of the compact by the Wisconsin Legislature. This consideration included a Joint Legislative Council study committee on the compact and culminated in the enactment of 2007 Wisconsin Act 227.

Act 227 does the following:

- Contains Wisconsin’s ratification of the compact.
- Implements the compact in Wisconsin when the compact takes effect.
- Establishes other state water use programs.

In Wisconsin, approximately the eastern 1/4 of the state is in the Lake Michigan part of the Great Lakes basin, and a smaller area in the northern part of the state is in the Lake Superior basin. The remainder of Wisconsin is in the Upper Mississippi River basin, and is not subject to regulation by the compact.

The compact took effect when it was ratified by Wisconsin and by the other seven Great Lakes states through legislation, and consented to by Congress. Congress passed the compact on September 23, 2008 and President Bush signed it on October 3, 2008 as P.L. 110-342. The compact establishes the legal framework for: (1) prohibiting or, in a few cases, authorizing and regulating new or increased diversions of water to places outside of the Great Lakes basin; and (2) for regulating large withdrawals and consumptive uses of water within the basin. Throughout the Act, “water” includes groundwater and surface water.

For purposes of the compact, the “Great Lakes basin” is the surface water and groundwater of the basins of each of the Great Lakes and the St. Lawrence River basin upstream from Trois-Rivières, Quebec.

Any person who takes water from the basin (i.e., “withdraws” the water) for use within the basin that exceeds the specified amounts or diverts any amount of basin water to any place outside of the basin or between basins of the Great Lakes must, under the compact, register with the state and provide information to the state about the withdrawal or diversion.

With a few exceptions, new or increased diversions of water from the basin are prohibited under the compact. A “diversion” is when water is removed from the Great Lakes basin. Most proposals for diversions are likely to be from communities seeking a public water supply consisting of water from the Great Lakes basin. In particular, the compact authorizes the following three exceptions to its general ban on new or increased diversions:

- Diversions to areas outside the basin that are within communities that are partly outside of (i.e., straddle) the boundary of the basin.
- Transfers of water within the basin, but from the watershed of one Great Lake into another, referred to as an “intrabasin transfer.”
- Diversions to communities that are outside the basin, but that are entirely within a county that straddles the basin limits.

The Great Lakes-St. Lawrence River Basin Water Resources Council (the “council”), created by the compact, consists of the governors of the eight Great Lakes states or

their alternatives. Under the compact, the council's review and approval authority relates primarily to reviewing exceptions to the prohibition on diversions of water from within the basin to places outside the basin. The compact contains a standard of review for the council and the states to use in making these decisions (called the "exception standard"), which the council may modify to make more or less restrictive. The compact provides that council approval is required for the last of the three exceptions above and for large intrabasin transfers, and requires approval by the council without a dissenting vote.

Act 227 also establishes a statewide water conservation and efficiency program and a new statewide requirement for public water supply systems to prepare water supply plans.

Legislative Council Information Memoranda IM-2008-03 to 2008-08 are a series of memoranda summarizing Act 227. These documents are available at the Legislative Council's publications page at <http://www.legis.state.wi.us/lc>.

Land

Mining

Metallic Mining

Metallic mining can include a number of activities, such as the initial exploration or drilling for minerals; prospecting, which involves larger scale testing and analysis of a mineral deposit; mining of the deposit; mining waste disposal; and reclamation. As noted by DNR staff, most of the DNR's regulation of metallic mining can be divided into three major stages: the permit review process and environmental impacts analysis, operations (construction, mining, and reclamation activities), and post-reclamation. Given the invariably controversial nature of proposals for new metallic mines, the permit review and approval process for a new mine receives considerable public scrutiny.

The mining permit review and approval process contains a number of steps. Before collecting any data supporting mining permit application, the mining company must file a notice of intent with the DNR. This must be followed by a "scope of study," which details the environmental studies that the company proposes to conduct as part of the permitting process.

Once the necessary data has been collected and applications prepared, the company must submit to the DNR its mining permit application, an environmental impact report on the mine, a feasibility report for any waste facilities associated with the mine, and applications for other applicable environmental permits. The mining permit application must include the following:

- A mining plan.
- A reclamation plan.
- A monitoring and quality assurance plan.
- A risk assessment of possible accidents and health and environmental hazards that could be associated with the operation of the mine and a plan to respond to these hazards.
- Demonstration of compliance with the state's mining moratorium law.
- An irrevocable trust agreement proposal to ensure funds are available for a variety of activities such as the cleanup of unanticipated spills and replacement of drinking water supplies damaged by the mine's operation.

Upon receipt of these items and determining that they are complete, the DNR prepares a draft environmental impact statement on the mine and, after opportunity for public comment and review, the final environmental impact statement on the mine. State statutes then direct the DNR to conduct a "master hearing" on the entire mining proposal including the mining permit application, the final environmental impact statement, any feasibility reports, and all other permit applications for permits issued by the DNR. Following the hearing, a decision is made on the application and associated permits by either the secretary of the DNR or, at the secretary's discretion, the hearing examiner assigned to conduct the master hearing.

Nonmetallic Mine Reclamation

Nonmetallic mine reclamation regulations apply to a variety of nonmetallic mining operations in the state, including producers of aggregate for construction, and sand, gravel, and crushed stone for road building and maintenance. Under this program, the DNR has established statewide uniform reclamation standards. The standards are administered through reclamation permit programs administered by local governments. All counties are required by statute to adopt a nonmetallic mining reclamation ordinance that complies with DNR's standards. Cities, towns, and villages may enact and administer an ordinance within their jurisdiction at any time. The DNR has published a model ordinance for use or adoption by counties and interested municipalities.

A reclamation permit includes a requirement for a mine reclamation plan. As noted in DNR publications, "The purpose of the reclamation plan is to achieve acceptable final site reclamation to an approved post-mining land use in compliance with the uniform reclamation standards. The reclamation standards address environmental protection measures including top soil salvage and storage, surface and groundwater protection, and contemporaneous reclamation to minimize the acreage exposed to wind and water erosion." A mine operator must also provide acceptable financial assurance to ensure completion of the reclamation plan.

Recycling of Solid Waste

Wisconsin's recycling law, created by 1989 Wisconsin Act 335, induces local units of government to implement mandatory recycling programs by banning the landfilling or incineration of solid waste that contains any of 10 recyclable materials, but excepting waste from the bans if it originated in a community that has an "effective recycling program," as determined by state standards. These materials are aluminum cans, bi-metal steel and aluminum cans, corrugated cardboard, glass bottles and jars, magazines, newspapers, office paper, plastic food and beverage containers numbered one and two, and steel or tin cans. In addition, state law bans the landfilling of lead acid batteries, major appliances, used motor oil, and yard waste.

Effective recycling programs may be implemented by any of several local units of government; the units that choose to take on this responsibility are referred to as "responsible units." In addition to implementing a recycling program to manage the collection and recycling of the above materials generated by its residents, each responsible unit must establish and enforce local ordinances to ensure that its residents, businesses, government agencies, and other organizations within the unit recycle. The state provides financial assistance to responsible units with effective recycling programs in the form of cost-based recycling grants.

Other elements of the state's recycling program include the provision of statewide technical assistance and education programs, the requirement that newspapers use newsprint with the specified content of recycled fiber, and a waste reduction and recycling demonstration grant program administered by the DNR.

Electronic Waste Recycling and Disposal

2009 Wisconsin Act 50 assigns manufacturers of specified household and school electronic devices sold in the state the responsibility for recycling those devices either directly or through collectors and recyclers registered under the electronic waste recycling program created by the Act. These “covered electronic devices” include television and computer monitors with a tube or screen at least seven inches at its longest diagonal measurement, computers, and printers. The amount of covered electronic devices that a manufacturer is responsible for recycling is based upon the manufacturer’s sales of those devices in the state. A manufacturer may count towards its recycling obligation the recycling of a broader group of electronic devices identified as “eligible electronic devices.”

Manufacturer’s recycling responsibilities are enforced through restrictions on the sale of its covered electronic devices in the state and the assessment of shortfall fees when a manufacturer recycles less than its target amount.

If a manufacturer recycles more than its target amount, the manufacturer may earn recycling credits which the manufacturer can use to meet future recycling obligations or sell to another manufacturer for that manufacturer to meet its recycling obligations.

DNR administers the manufacturer, collector, and recycler registration programs and ensures compliance with the electronic waste recycling program. Local units of government may, but are not required to, register as a collector or recycler, or both.

Act 50 also establishes bans on the landfilling and incineration of eligible electronic devices. Landfill and incinerator operators are, in general, required to make a reasonable effort to manually separate, and arrange to recycle, televisions and computer monitors that are readily observable in the solid waste that is delivered to the facility for disposal or burning.

Remedial Action

The remedial action or cleanup program for contaminated sites is a response to the state’s hazardous substances spill law. This law requires any person who possesses or controls a hazardous substance or causes the discharge of hazardous substance, in general, to notify the DNR immediately of any discharge to the environment. The law also establishes that such a discharger must take the actions necessary to restore the environment to the extent practical and minimize the harmful effects from the discharge to the air, land, or waters of the state.

In practice, the assignment of this cleanup responsibility can be difficult or impossible to do due to a variety of factors, including multiple parties contributing to the discharge, change in ownership of the site, and poor or nonexistent recordkeeping of the discharge or discharges. These factors can be further complicated by significant lapses in time between when the discharge occurred and the site investigation and cleanup commences.

The DNR has established extensive standards and procedures to guide the cleanup of different types of contaminated sites from environmental investigation to cleanup to case closure. The standards are based upon groundwater and site-specific soil standards that include under appropriate conditions the use of natural attenuation, or natural processes, to break down the contamination over time. Cleanups can be conducted under either state law or the federal “Superfund” law.

In addition to the regulations and technical assistance provided by the DNR, there are a number of state and federal programs that provide financial assistance for the cleanup and redevelopment of contaminated or "brownfield" sites. Examples of such programs are the DNR's Brownfield Site Assessment Grant Program, "Ready For Reuse" Grant and Loan Program, and the Green Space Public Facilities Grant Program. Additional encouragement of cleanups is provided through various legal mechanisms, such as providing liability waivers for third parties who did not cause the discharge of a hazardous substance at a site but assume responsibility for cleaning up and developing the site.

Some of the state remedial action programs are targeted at specific types of contamination. Examples of these programs include the Agricultural Chemical Cleanup Program administered by the DATCP, the Dry Cleaner Environmental Response Program administered by the DNR, and the Petroleum Environmental Cleanup Fund Award (PECFA) Program administered by the Department of Commerce. All three of these programs provide for the reimbursement of cleanup costs covered by the program.

Septage and Municipal Sewage Sludge

Under current law, a city, village, town, or county may not prohibit or regulate the land disposal of septage if the disposal complies with the statutes and DNR administrative rules. The statute further provides that a city, village, town, or county may not prohibit the land application of sewage sludge if the application complies with DNR rules and may only regulate the application if the regulation is identical to DNR regulations.

The septage disposal fees charged by a municipal sewage system must be reasonable and be based on specified actual costs related to the disposal of septage. The statute creates a three-stage process for a licensed disposer to obtain a review of a disputed septage disposal fee. All counties are responsible for adoption and enforcement of the Department of Commerce-administered maintenance program for new private sewage systems. The statute modifies the Clean Water Fund Program to provide 0% interest rate loans for any portion of a treatment work project that relates to facilities for receiving and storing and capacity for treating septage.

Solid and Hazardous Waste Facilities

There are two major components to the process of siting a solid waste disposal facility or a hazardous waste facility in Wisconsin. These components are obtaining DNR site approval and the negotiation and, possibly, arbitration between the applicant for a proposed facility and a local committee representing the area affected by the facility.

The major elements of the DNR site approval process are filing of an initial site report (applicable only to solid waste landfills), approval of the feasibility report, environmental review, determination of the need for the facility, approval of the plan of operation, and issuance of an operating license. Besides applying technical standards to the design and operation of the proposed facility, these components also require the applicant to establish proof of financial responsibility for the closure and, as appropriate, long-term care of the facility after it ceases to receive wastes.

The negotiation-arbitration component is a process which provides a forum for affected municipalities and nearby residents to express their concerns and to negotiate with a developer over various aspects of the proposed facility. Negotiation may address any subject except: (1) any proposal to make the applicant's responsibili-

ties under the approved feasibility report or plan of operation less stringent; or (2) the need for the facility. Arbitration subjects are limited by statute to a list of eight topics, including the applicability of certain local zoning ordinances, operational concerns such as noise, dust, and odors, and compensation to any person for substantial economic impacts which are a direct result of the facility.

The DNR also licenses solid waste treatment and storage facilities and transportation services. In addition, the DNR has established a program that encourages the beneficial use of industrial byproducts.

The state's solid and hazardous waste regulatory programs operate as federally authorized programs under the federal Resource Conservation and Recovery Act.

Regulatory Flexibility – Green Tier

2003 Wisconsin Act 276, commonly referred to as the Green Tier Act, created two new programs in the DNR, the “Environmental Results Program” and the “Environmental Improvement Program.” Businesses, local governments, and other similar entities that are subject to one or more environmental regulations administered by the DNR may participate in either of these programs on a voluntary basis. 2009 Wisconsin Act 30 changed the name of the Environmental Results Program to the Green Tier Program and changed the name of the Environmental Improvement Program to the Environmental Compliance Audit Program. Act 30 also removed the sunset dates for both programs.

The **Environmental Compliance Audit Program** is intended to encourage participants to assess their compliance with current environmental regulations through the use of an environmental compliance audit. If an audit identifies a violation of environmental requirements, then the regulated entity must correct the violation within 90 days of submitting its report to the DNR or according to a compliance schedule approved by the DNR secretary. In exchange for conducting the audit and agreeing to correct any violations identified in the audit, the regulated entity receives limited civil immunity.

The **Green Tier Program** is intended to encourage participants to commit to environmental management practices that result in a performance that exceeds the current regulatory requirements. This program builds upon the Environmental Cooperation Program, a pilot environmental performance program which was enacted as part of the 1997-99 Biennial Budget Act.

The Green Tier Program offers two tiers of participation. Eligibility to participate in either tier is based upon the applicant's enforcement record, environmental performance, and environmental management system. This system is an “organized set of procedures to evaluate environmental performance and to achieve measurable or noticeable improvements in that environmental performance through planning and changes in operations.”

In addition, the DNR may issue an environmental results charter to an association of entities to assist the entities who are participating in the program to achieve superior environmental performance. As noted by DNR staff, these entities may be organized around any common basis to achieve superior performance, including land areas, watersheds, political subdivisions, business sectors, supply chains, and emission categories.

Through participation in the Green Tier Program, a participant may receive limited civil immunity, customized regulatory flexibility, streamlined contact with the DNR, publicity, and the right to use the program's logo.

Additional References

The following state and federal agency websites provide information on the environmental protection programs administered by the agency:

- **DNR:** <http://www.dnr.state.wi.us/>.
- **DATCP:** <http://datcp.state.wi.us/index.jsp>.
- **Commerce:** <http://www.commerce.state.wi.us/>.
- **DHS:** <http://www.dhs.wisconsin.gov/eh/Water/index.htm>.
- **U.S. EPA:** <http://www.epa.gov/>.
- **U.S. Department of Agriculture (USDA):** <http://www.usda.gov/>.
- **U.S. Department of Interior (USDI):** <http://www.doi.gov/>.

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Glossary of Terms and Abbreviations

Brownfields – Abandoned or underused property with real or perceived contamination, where the contamination issue often serves as a stumbling block to cleanup and redevelopment.

Design management zone – This zone is a concept used in the state's groundwater protection program. State regulatory agencies that regulate substances which either have or may enter groundwater specify this zone. In general, the zone establishes the distance from a facility, activity, or practice which is the source of the substance, and which is within the property boundaries of the premises where the facility, activity, or practice is located or undertaken, where compliance with groundwater standards must be attained and maintained.

Groundwater management area – The state's new high capacity well law, 2003 Wisconsin Act 310, directs the DNR to identify groundwater management areas in the portions of Brown and Waukesha Counties and surrounding areas where there has been significant groundwater withdrawal. Strategies for managing groundwater in these areas are to be developed by an advisory committee created by this Act. (Act 310 is discussed in the current issue on groundwater management subsection of this chapter.)

Groundwater protection area – A groundwater protection area is any area within 1,200 feet of an outstanding or exceptional resource water or any class I, II, or III trout stream as designated by the DNR, but excluding trout streams that consist of a farm drainage ditch with no prior stream history. New high capacity wells proposed to be located within a groundwater protection area receive additional environmental review by the DNR under the state's new high capacity well law, 2003 Wisconsin Act 310. (This Act is discussed in the groundwater management subsection of this chapter.)

Nonattainment area – A nonattainment area is an area identified under the federal CAA: (1) where the concentration in the ambient air of an air contaminant exceeds a national ambient air quality standard (NAAQS) for the contaminant; or (2) that contributes to ambient air quality in a nearby area that does not meet a NAAQS.

Preventive Action Limit (PAL) – A PAL is a type of state groundwater protection standard that represents a lower concentration for a substance than the enforcement standard for the substance. PALs are used by state regulatory agencies in establishing design requirements that are intended to prevent groundwater contamination from facilities, activities, and practices under their jurisdiction.

State Implementation Plan (SIP) – These plans are required by the federal CAA. They set forth in detail the regulations and related programs that a state will use to meet its responsibilities under this Act; they are reviewed and approved by the EPA.