



# Environmental Contamination: The Basics

RR-674

September 2014

In an industrialized society like ours, a wide variety of contaminants are discharged to the environment every day from residential, commercial and industrial sources. Many of these discharges may not pose a threat to the public and the environment. However, a significant discharge of a contaminant or hazardous substance has the potential to impact human health or the environment. When a significant discharge occurs, the Wisconsin Department of Natural Resources (DNR), particularly the Remediation and Redevelopment Program (RR Program), provides oversight and assistance in making sure the public and the environment are protected.

A **Hazardous Substance**, as defined in s. 292.01, Wis. Stats., means any substance or combination of substances, including any waste of a solid, semisolid, liquid or gaseous form which may cause or significantly contribute to an increase in the mortality or an increase in serious irreversible or incapacitating reversible illness, or which may pose a substantial present or potential hazard to human health or the environment because of its quality, concentration or physical, chemical or infectious characteristics. This term includes, but is not limited to, substances that are toxic, corrosive, flammable, irritants, strong sensitizers or explosives as determined by the DNR.

## What is the RR Program?

The RR Program becomes involved when a discharge of a hazardous or potentially hazardous substance occurs to the lands, waters or air in the State of Wisconsin. When a discharge is reported, the RR Program evaluates the severity of the discharge and, if necessary, ensures that the proper cleanup procedures are followed to minimize any threat to human health or the environment.

The RR Program also provides technical and regulatory assistance to public and private parties looking for information, investigating and cleaning up properties with real or perceived contamination. In certain circumstances, the DNR is required to charge a fee for technical assistance. Attention is provided to abandoned or underutilized properties, known as *brownfields*, in an effort to return these properties back to productive use. This effort also promotes the revitalization of blighted areas, as well as the reuse or redevelopment of properties already located in urban areas in order to preserve undeveloped land, also referred to as *greenfields*.

## Why should I be concerned?

Not only is it a legal requirement to take necessary steps to address contamination, but contamination can have an adverse impact on human health and the environment. It can take many forms and can occur anywhere. In Wisconsin, two major concerns for environmental and public health impacts from contamination are the degradation of groundwater and vapor intrusion of chemicals. Soil, air and surface water contamination are also areas of concern. When a discharge to the environment has been identified, the DNR is mandated by state law to require response actions that are protective of human health, safety and welfare, and to restore the environment to the extent practicable.

An individual or local government may assume liability for environmental cleanups by acquiring a contaminated property, although there are exemptions for local governments that acquire properties by certain



Wisconsin Department of Natural Resources  
PO Box 7921, Madison, WI 53707  
dnr.wi.gov, search "Brownfield"



means. The Wisconsin Supreme Court has determined that if you own a contaminated property where contaminants are continuing to migrate, then you may be responsible for cleaning it up, even if you did not cause the contamination, because you are interpreted as having “possession and control” of the discharge.

Stressed vegetation, stained soils, odors, a sheen on the surface of water or a strange taste to water are often obvious indicators of a potential discharge or environmental problem. In addition to these more obvious factors, historical property usage such as plating operations, dry cleaners or engine repairs could also be indicative of other hidden environmental problems. For example, a serious environmental problem that is hard to detect is leakage from an underground storage tank (UST). Unless good records are kept regarding product usage, underground leaks are hard to identify.



### **What is a discharge?**

A discharge to the environment is defined in s. 292.01, Wis. Stats., and means, but is not limited to, spilling, leaking, pumping, pouring, emitting, emptying or dumping. To obtain more information on what constitutes a hazardous substance discharge, refer to the Regulations listed in the “For more information” section on page three.

### **How is a discharge discovered?**

Discharges to the environment are discovered in several ways. The most common methods of discovery are visual observation while the discharge is taking place (i.e. a leaking gas pump) or historical discharges discovered during building expansion or demolition, road construction activities, utility repairs or tank removal or upgrade activities.

Discharges can also be discovered at the time of property transfer if a potential buyer requests a Phase I or Phase II Environmental Site Assessment (ESA). A Phase I ESA consists of a historical search and identifies current and past property usage and areas of potential environmental concern. A Phase II ESA consists of collecting soil and groundwater samples at the property from those areas identified in the Phase I ESA with suspected or known contamination (i.e. areas of drum storage, stressed vegetation, stained soils, above and below ground storage tanks, etc.).

### **When do I need to report a discharge?**

According to the “Spill Law,” s. 292.11, Wis. Stats., persons who cause, possess or control the discharge of a hazardous substance that adversely impacts, or threatens to adversely impact public health, welfare or the environment must immediately report the discharge to the DNR. Generally, this responsibility falls upon the current property owner. **Emergency spills must be immediately reported by calling the DNR 24-hour toll free Spill Hotline at 1-800-943-0003.** Non-emergency discharges discovered via a tank removal or environmental testing can be reported by completing and submitting the *Notification for Hazardous Substance Discharge* form (4400-225) or visiting your DNR regional headquarters in person during normal business hours (please see page 4 for contact information). If the testing was done as part of a Phase II ESA, report the discharge immediately upon discovery. Do not wait until a Phase II ESA report is completed to report a spill.

### **What happens next?**

Once the DNR has been notified that contamination exists at a site, the DNR will inform the responsible party by telephone or mail if any further actions are needed. The range of actions is defined in the NR 700 rule series (referenced in the “For more information” section). The responsible party is then, in most cases, issued a responsible party letter that outlines legal responsibilities for addressing contamination. The letter will ask

the responsible party to hire a qualified environmental consultant. The consultant will submit a work plan that details how they will investigate the degree and extent of the contamination (if necessary, across property boundaries) by collecting soil or groundwater samples.

After determining the degree and extent of the contamination, the environmental consultant will prepare a site investigation report that summarizes the results of their findings. Typically, the consultant will also provide a cleanup strategy in this report. Cleanup measures are then undertaken by the consultant on behalf of the responsible party to restore the environment.

Once the site appears to meet all regulatory requirements, the consultant will prepare a closure request for DNR submittal. Once the appropriate fee has been submitted, the DNR reviews the closure request and determines whether or not the site has been cleaned up to acceptable levels. If closure is appropriate, the DNR or any other state agency with jurisdiction over the case will issue a closure letter indicating that the responsible party has complied with the conditions of closure.

#### **What is a “Responsible Party?”**

A responsible party is an individual or public or private entity who causes a discharge of a hazardous substance or who possesses or controls a hazardous substance which is discharged. The responsible party is legally required under Wisconsin’s Spill Law to notify the DNR of the discharge and to investigate and remediate the environment. There may be more than one responsible party at a site.

#### **What is the role of an environmental consultant?**

When the DNR informs you that you need to address contamination, you will be requested to hire the services of a professional environmental consultant. The role of the environmental consultant is to determine the most appropriate and cost effective way to investigate and remediate the contaminated site. The consultant should act as a representative for the responsible party on technical matters and should have a thorough understanding of regulatory requirements. It is important to feel comfortable with your environmental consultant, as they will be working closely with you and the DNR. Qualifications for environmental consultants are specified in ch. NR 712, Wis. Admin. Code. More information can be found in *Selecting an Environmental Consultant* (RR-502) at [dnr.wi.gov/files/PDF/pubs/rr/RR502.pdf](http://dnr.wi.gov/files/PDF/pubs/rr/RR502.pdf).

#### **For more information...**

The RR Program web site has many features to assist you. For example, you can locate DNR staff contacts, access DNR publications, obtain environmental information on specific properties or find information on financial incentives. The web site can be found at [dnr.wi.gov/topic/Brownfields](http://dnr.wi.gov/topic/Brownfields).

The following are just a few of the DNR resources can be found on the RR Program web site:

##### Information on Contaminated Sites:

- *BRRTS on the Web*, the RR Program’s list of open (still investigating) and closed (cleanup completed) contaminated sites in Wisconsin. [dnr.wi.gov/topic/Brownfields/botw.html](http://dnr.wi.gov/topic/Brownfields/botw.html)
- *RR Sites Map*, the RR Program’s web-based mapping system for contaminated and cleaned up sites [dnr.wi.gov/topic/Brownfields/rsm.html](http://dnr.wi.gov/topic/Brownfields/rsm.html)

In addition, appointments to view paper copies of DNR files can be made by contacting your DNR regional headquarters at the telephone numbers listed below during normal business hours. Please be aware that some of our services require a fee. Please see our web site at [dnr.wi.gov/topic/Brownfields/Fees.html](http://dnr.wi.gov/topic/Brownfields/Fees.html) for more information on fees.

Publications:

- [Environmental Services Contractors List \(RR-024\)](#)
- [Notification for Hazardous Discharge \(non-emergency\) \(4400-225\)](#)
- [Financial Resources Guide for Cleanup and Redevelopment \(RR-539\)](#)
- [Selecting an Environmental Consultant \(RR-502\)](#)
- [Voluntary Party Remediation and Exemption from Liability \(RR-506\)](#)

All Remediation and Redevelopment publications can be searched for at [dnr.wi.gov/topic/Brownfields/Pubs.html](http://dnr.wi.gov/topic/Brownfields/Pubs.html).

Regulations:

- Hazardous Substance (Wisconsin State Statutes 292.01)
- Spills Law (Wisconsin State Statutes 292.11)
- Wisconsin Administrative Code Chapter NR 140
- Wisconsin Administrative Code Chapter NR 700 Rule Series

**Regional Office Contacts**

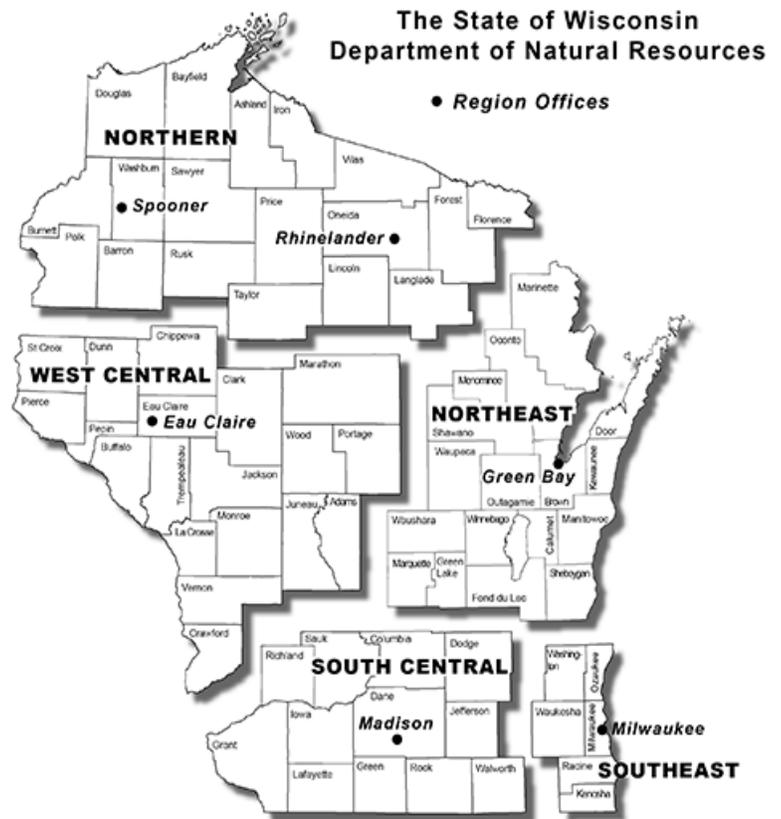
Northeast Region (NER, Green Bay)  
920-662-5168

Northern Region (NOR, Antigo)  
715-623-4190, ext. 3127

South Central Region (SCR, Fitchburg)  
608-275-3212

Southeast Region (SER, Milwaukee)  
414-263-8688, 414-263-8680

West Central Region (WCR, Eau Claire)  
715-839-2784



This document is intended solely as guidance, and does not contain any mandatory requirements except where requirements found in statute or administrative rule are referenced. This guidance does not establish or affect legal rights or obligations, and is not finally determinative of any of the issues addressed. This guidance does not create any rights enforceable by any party in litigation with the State of Wisconsin or the Department of Natural Resources. Any regulatory decisions made by the Department of Natural Resources in any matter addressed by this guidance will be made by applying the governing statutes and administrative rules to the relevant facts.