St. Croix County

Manure Spill and Brown Water Event Response Plan

Prepared By:

Community Development Department

Health and Human Services - Public Health

Safety & Justice - Emergency Support Services

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Terms, definitions, statutes and rules

Brown Water – Brown or yellow water can occur in private wells due to manure contamination and may also have an odor of manure.

Community Development Department (CDD) – A department within St. Croix County and the point of contact for manure spills and brown water events.

Discharge – spilling, leaking, pumping, pouring, emitting, emptying, dumping, etc. to land, air, or water.

Emergency Support Services – A division within the St. Croix County Safety & Justice department.

Hazardous Substance – Any substance that can cause harm to human health and safety, or the environment, because of where it is spilled, the amount spilled, its toxicity or its concentration.

Health and Human Services – A department within St. Croix County and the entity that will carry out public advisories related to manure spills and brown water events.

Public Health – A division within St. Croix County Health and Human Services and the division that will administer public advisories.

Resource Management Division – A division within the St. Croix County Community Development Department and the primary division for handling manure spill and brown water event response.

Responsible Party (RP) – person who causes the contamination, owns the property where the contamination occurred or has control over the contamination is considered the responsible party.

Spill – A discharge that is typically a one-time event or occurrence and is usually inadvertent.

WI Department of Natural Resources (DNR) – The primary state agency for natural resource protection and hazardous spill response.

WI Department of Agriculture, Trade, and Consumer Protection (DATCP) - A state agency that helps to protect natural resources from agricultural sources of contamination.

WI Division of Public Health (DPH) – A state agency that protects drinking water resources.

Wis. Stat. 292.11 (2) and Wis. Admin. NR 706.05 – require individuals and entities that possess or control a hazardous substance, or that cause the discharge of a hazardous substance to the environment, to notify the DNR immediately about the discharge.

Wis. Stat. 292.99 – Authorizes penalties up to $5000 for each violation of the notification requirement.

Introduction

Animal agriculture in St. Croix County is of significant size. From 2002 to 2017 the number of animal units has remained similar, but the number of operations has decreased, indicating a trend towards fewer and larger operations (USDA Agriculture Statistics, 2002, 2017). There are the equivalent of 45,000 Animal Units in the county according to USDA Ag Statistics 2018. This number of animal units will produce approximately 525,000 tons of manure per year.

Manure is a natural by-product of animal agriculture that has value as a soil amendment and fertilizer. Field application onto crop land is an accepted method of disposing of manure generated from feedlots and dairies.

There are potential impacts associated with the high concentration of nutrients and bacteriological content of manure if released in significant quantities into ground or surface waters. Risks arise through handling large amounts of animal manure, which can result in spills from storage areas or during transport, releases from conveying and applying manure to cropland, leaching through the cropland soil profile or direct transmission to groundwater through sinkholes, or through runoff from fields into waterways.

St. Croix County recognizes no single department or agency will assess, respond, mitigate, and evaluate a manure spill. St. Croix County believes in partnership between departments and agencies without duplication of services. A Ground and Surface Water Quality Group was convened and established recommendations which included development of this response plan. St. Croix County Community Development Department (CDD) and Department of Health and Human Services Public Health (Public Health) have formed a water quality team that has met regularly to advance the recommendations.

State Statutes and County Ordinances require appropriate spill response by responsible parties (Wis. Stats. Ch. 292 and Wis. Admin. Code Chapters NR 700 through NR 754). The Wisconsin Department of Natural Resources (DNR) has a functional hazardous spill response hotline and designated staff to respond to spills (*Appendix I*). Specific instructions have been developed for manure spills (*Appendix II*). St. Croix County staff will ensure that these rules are followed and track cases until they are resolved. Complete resolution of a case after a large spill may take several years due to the time-consuming nature of responding, containing, and restoring the site. If legal action is taken, the case typically requires several years to completely resolve. St. Croix County staff can improve case resolution time for situations where legal action is not required by utilizing the Manure Spill and Brown Water Event Response Plan as a guidance tool.

Plan Purpose

1. **Identify** spill planning and non-spill outreach that can be conducted to reduce concerns related to manure spills and field application of manure.

2. **Guide** St. Croix County staff as they respond to manure spills and manure applications that may have resulted in brown water events in the County.
3. **Ensure** protection of public health and water resources related to manure storage, transport, and application.
4. **Provide** public transparency and fairness through consistent and timely handling of manure spill events.

Plan Objectives

The overall objective of the St. Croix County Manure Spill and Brown Water Event Response Plan is to outline County staff response to identified brown water and manure spill events. Actions, outreach, and steps to reach a public advisory notice are outlined.

Objective 1: Pre-Spill Planning

Processes and procedures must be determined in advance to ensure timely and consistent response. These must allow staff flexibility to use sound judgement when determining potential impacts. The steps listed below outline the procedures that will take place in response to manure spills or brown water events.

Step 1: Notification of Spill – Resource Management Division
Three CDD – Resource Management staff will be alerted by the DNR's spill hotline notifications, the Resource Management Administrator, Land Use and Conservation Specialist, and Land Use Technician. These staff will also have mobile access to calls and emails notifying them of reported manure spills or brown water events. In the event that St. Croix County – Resource Management is contacted directly, staff will enter the case into the tracking database, notify the DNR, and pursue resolution.

Step 2: Tracking Database – Resource Management Division
The Land Use and Conservation Specialist will be the lead for tracking spill cases and maintaining the spill database. The Land Use Technician will be the co-lead. The Complaint and Violation Tracking Form will be used to record spills and complaints (*Appendix III*). All notifications of manure spills and brown water events will be tracked in the tracking database.

Step 3: Field investigation – Resource Management Division
The Land Use and Conservation Specialist will be the lead for investigating spill cases and the Land Use Technician will be the co-lead. The Resource Management Administrator will review and track progress of spill cases. Field investigations will be coordinated through communication with DNR spill response efforts and communication with landowners and affected individuals.

Step 4: Determination of Significant Public Risk – Resource Management Division

The Resource Management Administrator and the Land Use and Conservation Specialist will determine the risk level for each case. If a case is determined to be a significant public risk, the estimated affected area will be determined in this step. The Water Resources and Outreach Specialist will assist with mapping the affected area.

Step 5: Notification of Partners – Resource Management Division
The Land Use and Conservation Specialist will forward notifications of significant risk determination to the County Administrator, Community Development Director, Public Health and the municipality where the incident is located. The notification will include information about the manure spill or brown water event and the determination of significant risk. In situations determined to have no or minimal risk, public advisory letters and municipality notification letters will not be used.

Step 6: Issuance of a Public Advisory – Public Health
Public Health will use the notification from the CDD – Resource Management Division to determine the implementation of the public advisory and iterations of the advisory. Templates have been developed to fit a range of situations. Public Health will send out a public advisory as needed based on the public advisory recommendation from the Community Development Division. Public Health can fine-tune the public advisory to fit specific situations. In the event of moderate to significant risk spill events, Public Health will coordinate the pick-up of bacteria testing kits to potentially affected homeowners. Public Health will also utilize the municipality notification templates to notify the affected municipalities of the situation.

Under Development

The following areas of work are under development by staff and each could add more science to the decision-making process for determining the extent of public advisory notices and the message delivered to citizens.

- General groundwater flow mapping to determine local and regional scale flow paths for advisory extent determination.
- Sinkhole mapping to determine proximity of spilled or applied manure to sinkholes.
- Refinement of protocols to use groundwater flow mapping, spill size, location, presence of sinkholes, and other factors to gauge public risk and develop a targeted mailing area for public advisories.

Objective 2: Non-Spill Communication and Outreach

Develop and deliver non-spill messaging aimed at informing the public of manure application practices and spill event procedures. This objective requires sufficient staff to effectively educate County landowners.

- Manure application is an acceptable and regulated practice that benefits soil and reduces reliance on commercial fertilizer when implemented with proper rates, methods, and timing (NR151).
- Wisconsin adopted administrative rules in 2002 (NR151) that set statewide performance standards for Wisconsin farms. These standards encourage nutrient management planning.
- Manure spills that threaten to adversely impact human health or the environment require immediate reporting through the DNR unless the spill is exempted as described in Publication DNR-RR-560.
- Manure spilled onto roadways in quantities that represent a safety hazard can be reported to the St. Croix County Sheriff's office.
- All private residential wells should be tested at least once per year for bacteria (total coliform and E. coli).
- Manure contamination of well water is a serious short term health risk because it means that illness-causing bacteria and other organisms can be in the water.
- If your well water test results come back "unsafe" for bacteria, use water from a known safe source until the problem is corrected.
- If you know your well is at risk of contamination from manure runoff, test your water more than once per year (WI DNR Recommendation). Wells are most vulnerable during the spring after the ground has thawed and before plant growth begins to uptake greater amounts of nutrients.
- If harmful bacteria is present in private drinking well water, it can cause gastrointestinal symptoms.
- Statewide standards have been adopted under the Clean Water Act and are in place to protect soil health and surface water and groundwater quality.
- Winter spreading of manure can cause surface water and groundwater pollution.
- Excess nutrients from manure or commercial fertilizer application may adversely impact water quality.
- Wetlands protect surface water and groundwater, control flooding, and provide wildlife habitat.
- Drinking water testing kits for the University of Wisconsin Steven's Point or Commercial Testing Inc. are available for pick-up at the ***Community Development Department***, St. Croix County Government Center, 1101 Carmichael Rd, Hudson, WI 54016 (715-386-4680) and the ***Agricultural and Education Services Center***, 1960 8th Ave, Baldwin, WI 54002 (715-531-1930) Monday through Friday from 8-4:30 PM. A list of other State of Wisconsin bacteria certified water testing laboratories can be found at https://dnr.wi.gov/dwsviewer/BactiLab
- If your well tests positive for E. coli during a brown water event, please reach out to Stacy Steinke at StacyJ.Steinke@wisconsin.gov for more information about the well compensation program before you have your well treated.

Objective 3: Define Expectations for Responsible Parties

Landowners and Operators

It is the expectation that manure applicators follow the appropriate laws and rules. It is the responsibility of manure applicators and farmers to know the rules associated with manure application. If a spill or discharge occurs, the initial response steps for individuals involved in any hazardous substance spill include:

A. **Stop / Contain** – stop the discharge and contain it if possible
B. **Immediately Report** – use the WI DNR Hotline 800.943.0003
C. **Clean-up / Restore** – eliminate the hazard and restore the area

St. Croix County Staff

Staff are expected to work toward resolution of manure spill and brown water event cases and handle each case in a timely manner consistent with this plan.

Community Development Division staff will serve as the primary St. Croix County initial contact for manure spill and brown water events. Personnel will assess the incident scope, scale, and severity. CDD will also alert partners involved of event occurrence and risk level. Public Health and Emergency Support Services should be notified if appropriate.

- Work with citizens and assist them as possible to complete the above steps.
- Encourage citizens to conduct initial water testing.
- Track and follow-up after a spill to ensure the above steps are completed and impacts from a spill are minimized.
- Evaluate each spill and determine if a public advisory is warranted.
- Determine the necessity and spatial extent of a public advisory.
- Make recommendation to Public Health to issue a public advisory as needed.
- Coordinate with Public Health and the DNR for issuance of public advisories.

Public Health - When notification is received from Community Development that a public advisory is needed it will also come with recommendations for area of concern and level of significance. Public Health staff will utilize one of the three public advisory templates as a starting point and complete the public advisory to be mailed or hand delivered to landowners. Public Health staff can include any additional information it deems necessary to protect public health such as information on water sampling, water treatment, or other relevant content. Public Health will also adjust the municipality notification letter to notify affected municipalities and advise on messaging and outreach. Public Health will also coordinate the pick-up or delivery of water testing kits to the public.

Emergency Support Services becomes involved in the event of a significant-risk widespread brown water event or multiple events indicating that domestic water quality is being impaired due to weather conditions or other factors. Emergency Support Services would issue an area-wide or county-wide advisory asking landowners to test water and take other actions deemed necessary.

Partner Agencies

WI Department of Natural Resources (DNR)

Wisconsin DNR is the lead agency for spill response in the state. The agency has 24-hour response capability through dedicated regional spill coordinators, DNR Wardens, and subject matter specialists assisting with manure, landfills, and other problems (see DNR-RR-559).

- Maintains 24 spill response hotline 1.800.943.0003
- Maintains Runoff Risk Advisory Forecast map online
- Maintains spill response contractors list
- Can impose penalties for failure to report or for contaminating water.
- Maintains an online record of all spill cases – open and closed https://dnr.wi.gov/botw/SetUpBasicSearchForm.do

WI Department of Agriculture, Trade, and Consumer Protection (DATCP)

The Wisconsin Department of Agriculture, Trade and Consumer Protection's Water Quality Section operates programs to keep pesticides and agricultural nutrients from reaching the environment, and monitors for agrichemicals in groundwater and surface water.

WI Department of Health Services (DHS)

The Wisconsin DHS works in a variety of areas including clean water as it relates to drinking water, water borne illnesses, beach monitoring, blue-green algae, and other areas. The DHS works with tribal and local contacts to provide educational and funding resources for local communities.

University of Wisconsin Madison- Division of Extension (UW Extension)

The UW Extension provides natural resources education and outreach to rural residents throughout each County in the State of Wisconsin. Along with outreach and education, UW Extension conducts and publishes natural resources research.

Objective 4: Defining a Significant Public Risk

A spill that results in significant public risk can be defined as any spill that involves a hazardous substance that can harm human health and public safety, or the environment. Substances can be hazardous due to the location, amount, toxicity, or concentration of the spill substance. Manure is applied extensively throughout St. Croix County, and this complicates risk assessment and spill follow-up because legal field application of manure occurs frequently, and many passive observers are unable to differentiate between legal manure application and an illegal spill.

Spills are typically accidents of some sort, but when they do occur, the people involved must comply with state requirements. Wisconsin law mandates that hazardous substance spills be immediately reported and cleaned up to protect Wisconsin's citizens and natural resources. It is recommended that landowners handling pesticides, fertilizer, and manure with potential to spill maintain a current *Emergency Contacts List* (*Appendix* IV).

Insert photos or drawing of legal and illegal application

Spill Reporting Basics for Hazardous Substances

Exemptions: (when reporting is not required)

- Application of manure when there is no unlawful discharge to air, land, or water.
- Less than 1 gallon of gasoline
- Less than 5 gallons of petroleum product other than gasoline
- Any amount of gasoline or petroleum product that is completely contained on an impervious surface.
- Individual discharges that are authorized by a permit or program approved under Wis. Stat. Chs. 289-299.
- Less than 25 gallons of liquid fertilizer
- Less than 250 pounds of dry fertilizer
- Pesticides that would cover less than one acre if applied according to label instructions.

When Exemptions Do Not Apply (reporting is required)

- The spilled substance adversely impacts, or threatens to impact, the air, lands, or waters of the state – even if the degree of the impact has not yet been thoroughly evaluated.
- The spilled substance has not evaporated or been cleaned up in accordance with Wis. Admin. Chs. NR 700 – 754
- The spilled substance is a potential fire, explosion, or safety hazard
- The spilled substance causes, or threatens to cause, chronic or acute human health concerns.

Reported water quality impact events such as "brown water" events may or may not be reported as spills because they occur seasonally over large areas and don't always have an identifiable cause or source.

Brown water events will be considered and handled as spills regardless if they are reported through the DNR Hotline or reported through a citizen complaint and will be tracked using the Complaint and Violation Tracking Form.

Determining Ground Water Risk

Several factors will be considered in the risk determination process including spill size, location, the presence of sinkholes, proximity to drinking water wells, and weather. Any one of these factors can cause a spill to be considered "significant" and therefore require the issuance of a public advisory. The risk determination step will require significant staff discretion due to high variability in landscape, spill size, proximity to wells and natural resources, and weather. The table below summarizes some of the primary factors that inform the risk determination process, however the factors involved in the decision may vary due to case specifics. Detailed notes will be kept by CDD staff in regard to the risk determination step.

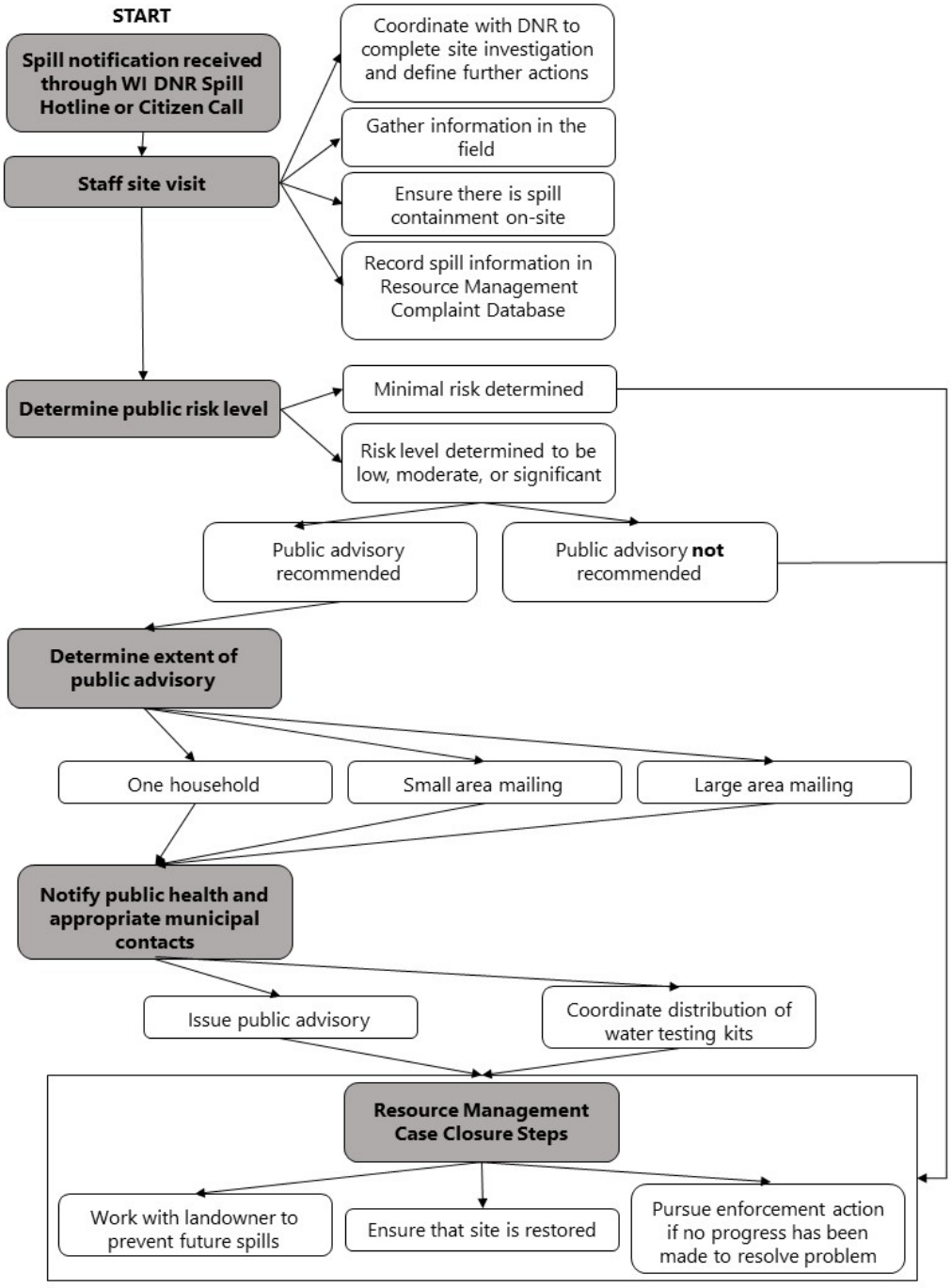
Summary Table of Factors Considered in Determining Public Risk

Factor	***Low Risk***	***Moderate Risk***	***Significant Risk***
Spill Size	<3000 gallons	3000 to 15000 gallons	>15,000 gallons
Location	>300 feet from waterway leading to public waters	Within 300 feet of navigable stream Within 1000' of navigable lake or pond	Manure enters any public water
Sinkhole Presence	None in Proximity	Possible in area	Spill within 100 feet of drainage pathway to verified sinkhole(s)
Proximity to Wells (see below)	2X minimum application setback	1 – 2X minimum application setback	Within minimum application setback
Weather	Dry soil	Normal weather	Wet cycle – wet soils
Proximity to Wellhead Protection Area	>1/2 miles from Wellhead Protection Areas	<1/2 miles from Wellhead Protection Area	Within Wellhead Protection Area

- **Minimum Well Application Setbacks For Spill Plan**
  - Within ½ mile of delineated wellhead protection areas for local municipal wells
  - 1000' from Transient Non-Community, Non-Transient Non-Community, and Other-than-Municipal wells
  - 250 feet from private domestic well
  - Within 100 feet of concentrated flow channel leading to navigable water or groundwater (sinkhole)

Objective 5: Response to Manure Spills and Brown Water Events

The number of incidents requiring actionable response is generally less than 10 annually even though approximately 30 reports of spills or concerns are reported through DNR's Spill Hotline yearly. Most DNR Spill Hotline notifications pertain to non-manure accidental spills related to gas, oil, antifreeze, or other substances. These non-manure spills are entirely handled by the DNR. The flow chart below outlines the steps that CDD – Resource Management will take to respond to manure spills and brown water events.



Prepared messages will be used to increase the speed of response after the need for a public advisory is identified by CDD staff. Three prepared messages represent a range of concern and each can be modified to fit the specific situation.

(A) Low Risk Level – general information to citizens informing them that a spill within one mile of their home has occurred. Advise well testing.
(B) Moderate Risk Level – a significant spill has occurred impacting public waters or has occurred in an area known to have a high connectivity to groundwater due to sinkholes or karst.
(C) Significant Risk Level – domestic wells in the identified area are believed to be impacted due to a spill. Ask for testing and possibly communication with the county.

*****In the event of a large spill that as evidence of being a significant risk to local drinking water, Resource Management Division will coordinate to mobilize two or three staff along with two or three Public Health staff to go door-to-door and disperse information and testing kits. For the large and dangerous spills, this will be the quickest and most effective way to quickly warn local residents and provide them with water testing kits.

Objective 6: Issuing a Public Advisory

After receipt of notification from CDD that a spill has occurred and that a public advisory is recommended, Public Health will work through the following steps:

1) **Consider the area for notification from CDD's recommendation** - If mail is to be used, mail labels will be prepared for the addresses located within the public advisory area.
2) **Adjust the public advisory and municipality notification templates** - The public advisory templates (*Appendix V*) will be used to tailor the landowner message to specific situations using the A, B, or C templates depending on severity of the situation. Delivery may be by U.S. mail or door-to-door delivery. If the spill event is determined to be moderate to high risk (public advisory templates B and C), the public advisory mailing may include bacteria testing kits to citizens within the designated mailing area. The municipality notification will be used to convey the severity and extent of the spill situation to the affected municipality(s), and will include a copy of the public advisory letter so that the local officials are aware of the information being distributed to landowners (*Appendix VI*).
3) **Prepare for public requests** - After the public advisory is distributed to the intended audience - staff will prepare for the public requests for information that will likely result related to a variety of topics such as well testing, health risks, water treatment, etc.
4) **Consider repeated or update advisory** - It may be necessary to develop and deliver a second or third message related to a specific spill as the case proceeds. Topics such as continued risk, clean-up actions, or water testing opportunities might be included. Communication with CDD by Public Health is recommended for development of follow-up messages.

Remediation and Redevelopment Program

DNR Staff Provide Spill Response and Support

Rarely does anyone ever plan a spill. Spills are typically caused by accidents of some sort, but when they do occur, the people involved with a spill must comply with state requirements. Wisconsin law mandates that spills of hazardous substances be immediately reported and cleaned up to protect Wisconsin's citizens and natural resources. When a spill occurs, the DNR has staff located in regional offices around the state to help in a variety of ways.

Responding to Spills

During Normal Working Hours
When calls are made to the DNR spill hotline during the day, the information comes directly to the DNR office in Madison, and is forwarded to the Regional Spill Coordinator for follow-up.

After Hours
During the evening hours and on weekends, the phone calls are directed to the Wisconsin State Patrol, who will forward the information to a DNR duty officer. That duty officer will then alert the On-Call Spill Coordinator to the situation.

The DNR encourages the public to report hazardous substance spills using the 24-hour toll-free hotline: 1-800-943-0003

DNR Field Response

DNR Wardens and Regional Spill Coordinators
The first responders to a hazardous substance spill for the DNR may be a field warden or regional spill coordinator. Wardens are more likely to respond in remote areas since they are widely distributed across the state. Each county has at least one warden. Wardens know local responders, such as fire and police personnel, are familiar with the natural resources impacted by a spill, and can assist the responsible party in managing the spill.

Spill coordinators (working in the DNR's Remediation and Redevelopment Program) are located in each of the regional DNR offices. These spill coordinators specialize in technical spill response issues and are available before, during, and after spills occur.

When a field warden or regional spill coordinator gets a call about a spill, their follow up may include additional phone calls to get more information about the nature of the spill, going to the site, and/or requesting other DNR assistance (e.g. fish managers, water resources staff and pubic information specialists).

When an emergency occurs and the responsible party is not available or willing to take action, the DNR will call in a zone contractor to respond to the spill. Zone contractors are emergency response companies that provide statewide emergency response services in such situations.

These companies normally provide a response within two hours of notification, and specialize in emergency response, spill containment and removal. They can assess a situation, take actions to prevent spilled materials from harming the public or the environment, sample substances to determine how to manage them, contain the spilled materials and remove those substances from the spill site to a secure facility until analyses are completed to determine their final placement. After the response, the department will seek cost recovery from the responsible party.

Assistance Before a Spill

The spill coordinators are part of local planning and response networks. They work with local emergency planning agencies, talk to the local fire departments about spill response issues, and work with the wardens to ensure a consistent DNR approach to spill response. In addition, the spill coordinators work with local industries who may handle hazardous substances as part of their business to provide them with technical support for spill prevention as well as spill response.

Assistance After a Spill

When a spill occurs, field wardens and spill coordinators can provide assistance in a variety of ways. The DNR has developed spill packets that are provided to persons who are responsible for the release. Included in these packets is information on DNR regulations, additional DNR contacts, as well as listings of local contractors and waste management organizations that can assist the responsible party in management of the residual spilled material. The responsible party often consults with the spill coordinators for technical advice, since they are familiar with DNR regulations relating to spill containment and cleanup. Although smaller cleanups may not receive direct DNR oversight, the coordinators can answer questions and guide responsible parties through the process.

RR Program State Spill Response Team

The DNR manages spills through the RR Program's Spill Response Team. This team is comprised of a state spill coordinator, a state emergency management coordinator, a federal removals coordinator, the five regional spill coordinators and legal counsel. These staff meet regularly to identify and resolve spill response issues and help make spill response efforts in Wisconsin as effective as possible.

For more information, please see visit dnr.wi.gov and search "Spills."

Northeast Region Spill Coordinator
Rick Joslin 920-424-7077 (Oshkosh)

Northern Region Spill Coordinator
Matt Rahn 715-623-4190 ext. 3110 (Antigo)

Southeast Region Spill Coordinator
Trevor Nobile 414-263-8524 (Milwaukee)

South Central Region Spill Coordinator
Mike Schmoller 608-275-3303 (Fitchburg)

West Central Region Spill Coordinator
Pat Collins 715-684-2914 ext.117 (Baldwin)

State Spill & Federal Removals Coordinator
Jason Lowery 608-267-7570 (Madison)

State Emergency Response Coordinator
David Woodbury (608) 266-2598 (Madison)

Legal Counsel
Bill Nelson (608) 267-7456 (Madison)

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.. This publication is available in alternative format upon request. Please call 608-267-3543 for more information.

Livestock Contamination Reporting and Response

The application of livestock waste (manure) and associated wastewater to the environment are generally not considered hazardous substance discharges or environmental pollution ("contamination"). They can, however, be subject to regulation under state law. Determining if livestock waste discharged to the air, land or waters of the state is immediately reportable to the Department of Natural Resources (DNR) is often based on the volume, concentration and location of the discharge. A person who causes the contamination, owns the property where the contamination occurred, or has control over the contamination is considered a responsible party (RP). Wis. Stats. ch. 292 and Wis. Admin. Code chs. NR 700 through NR 754 requires all hazardous substance discharges and environmental pollution to be responded to as necessary. The main response steps are:

✓ Stop/Contain ✓ Immediately Report ✓ Clean-up/Restore

Stop/Contain

Once contamination occurs or is discovered, the main priority is a timely response to stop and contain it. While responding, take appropriate measures to keep yourself and other responders safe. Some examples and considerations are:

- **Semi-truck/tanker or tractor/tanker accident:** Call 911 to report the accident and, if safe, respond to anyone injured. Begin active containment and recovery of manure from roadway, road ditch and the damaged tanker once the scene is secured. Earthen berms are typically constructed to dam the manure in the ditch and to protect nearby surface waters.

- **Farm equipment malfunction (transfer line or hose leaks/breaks; pump or valve failures; storage overflows or failures; operational error; etc.):** Stopping the flow is the first priority. Safely shut down any equipment causing the contamination. Contain livestock waste along low points with earthen berms, square bales and any other materials readily available to slow or stop the flow. For a waste storage overflow, shut off any barn reception tank pumps transferring manure into storage until levels are drawn down.

  Keep any clean water diverted away from the contaminated area manure or from waste storage. Also, keep livestock waste away from private wells or other conduits to groundwater or surface water (areas with fractured rock/sinkholes, tile intake structures, ditches).

- **Field application site runoff**: This type of contamination is the most preventable. It is important to carefully plan manure applications and apply according to a nutrient management plan. If snow melt, saturated soil conditions, forecasted rain, etc. make conditions unsuitable for manure application, seek other alternatives to land application. If possible, haul to alternate storage or wait for suitable field application conditions.

If manure runoff occurs (even for an otherwise legal application) that has potential to threaten human health or the environment, manure applications must stop, the contamination must be reported, and actions need to be taken to minimize those impacts and stop the manure from migrating off the application site. These actions typically include tillage passes, placement of containment berms and use of absorption materials (straw, waste feed, etc.).

Immediately Report

Immediately reporting a hazardous substance discharge is required under Wis. Stats. § 292.11 and Wis. Admin. Code § 706.05. If you are not sure whether to report a discharge, the safest course of action is to call the spill hotline (1-800-943-0003). Doing so ensures that you have complied with the reporting requirements of Wis. Stats. ch. 292 and Wis. Admin. Code chs. NR 700 through NR 754. Even if you have already contained and cleaned up the discharge, you still need to report it. The DNR publication *Immediate Reporting Required for Hazardous Substance Spills* (RR-560) contains additional information on discharge reporting requirements.

If you have a livestock or poultry operation with a Wisconsin Pollutant Discharge Elimination System (WPDES) permit, you should also refer to your WPDES permit for any additional reporting requirements. Depending on the nature of the contamination you may also need to contact township authorities, the county land conservation department and any potentially impacted property owners.

When you report discharge, you will need to provide:

- Your name, address and phone number, and the name of the property owner, if different.
- The quantity, description and physical state of the discharged substance.
- The location and cause of the discharge, including physical address, location description and affected area.
- The actions taken to stop the discharge and/or minimize the impact to the environment.
- The actual or potential impacts to human health and the environment such as proximity to wells, surface water, etc.

The responsible party has an obligation to report and provide accurate documentation establishes a record of your actions to clean up the contamination and documents that your actions are in compliance with state law.

Clean-up/Restore

Wis. Stats. ch. 292 and Wis. Admin. Code chs. NR 700 through NR 754 requires cleanup of a hazardous substance discharge and environmental pollution in a timely manner in order to protect human health and the environment. Although manure is an organic substance that will naturally break down over time, a large volume of manure in one place or discharged to surface water or groundwater can cause significant environmental contamination. The person who is legally responsible for the contamination must take action to recover discharged manure and return it to storage or apply to land in accordance with a nutrient management plan. The DNR encourages responsible parties to hire an environmental consultant to conduct this work, under the direction of the responsible party. The DNR is not responsible for hiring a consultant or directing an RP's consultant. See *Selecting an Environmental Consultant* (RR-502) for more information on hiring on consultant.

Vacuum trucks or pumps are typically used to recover manure contained in ditches and low areas. Residual manure on roads and ditches is typically flushed with water and recovered by vacuum or pumping. Recovery sumps can be constructed to route discharged manure to a collection point. If appropriate, residual manure on fields can be tilled into the soil or redistributed to reduce concentration and runoff potential. Excavation is typically not a recommended cleanup practice for removing manure.

Wetlands, waterways, road right-of-ways or offsite properties impacted by response actions must be restored. This may involve working with DNR, local town and county authorities and offsite affected property owners to ensure restoration practices are acceptable. Restoration may include filling recovery sumps, removing containment berms from waterways and road ditches and re-grading and seeding disturbed areas.

The RP is responsible for documenting actions taken to clean up the contamination and restore impacted areas and submitting that information required by law to the DNR. Making notes and taking photos during these activities can assist you in documenting the actions taken to respond to the discharge. Wis. Stats. ch. 292 and Wis. Admin.

Code chs. NR 700 through NR 754 requires (and a WPDES permit may require) a report documenting your actions. Specific information regarding documentation can be found in Wis. Admin. Code § NR 708.09.

Other Spill Response Resources & Information

- Department of Natural Resources: visit dnr.wi.gov, search "manure spills"
- Department of Agriculture, Trade and Consumer Protection's Wisconsin Manure Management Advisory System: http://www.manureadvisorysystem.wi.gov/
- Wisconsin Statutes Chapter 292: https://docs.legis.wisconsin.gov/statutes/statutes/292
- Wisconsin Admin Code NR 700 Rule Series: https://docs.legis.wisconsin.gov/code/admin_code/nr/700

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.

The Wisconsin Department of Natural Resources provides equal opportunity in its employment, programs, services, and functions under an Affirmative Action Plan. If you have any questions, please write to Chief, Public Civil Rights, Office of Civil Rights, U.S. Department of the Interior, 1849 C. Street, NW, Washington, D.C. 20240.

This publication is available in alternative format (large print, Braille, etc.) upon request. Please call for more information. Note: If you need technical assistance or more information, call the Accessibility Coordinator at 608-267-7490 / TTY Access via relay - 711

Appendix III: Complaint and Violation Tracking Form

Instructions		Case Information
Off email notification	**SERTS ID:**	20190506WC56-1
mo/day/year (08/07/19)	**Case ID #**	8/7/2019
At time of sheet completion	**Status of Case**	Open – Investigation
list lead staff for LCD	**County LCD Lead**	Tim Stieber
off spill notice	**First Reported (date)**	5/8/2019
off spill notice	**Spill Occurred (date)**	5/8/2019
who or how	**Reported By:**	Don the Dairyman
address or parcel number	**Location**	345 Hedgehog Ln
Where on property?	**Describe**	South side of Hedgehog Lane
As per spill hotline or confirmed	**Responsible Party**	Don the Dairyman
Describe what is known	**Substance**	liquid manure
Reported reasons	**Cause**	mechanical failure of containment wall
Be specific	**Describe**	manure spill from containment was reported to be from a breach of storage area due to gopher holes
describe what is known	**Environmental Impact**	800 gallons of liquid manure entered the edge of a wetland
what must happen	**Clean-up Needed**	scoop up the spill and spread on cropland
Fill In Date Form Completed	**Date Form Completed**	*5/8/2019*
Estimated release (gal)	**Released Amount**	*800 gallons*
Record gallons	**Recovered Amount**	*750 gallons*
list status of spill on date listed	**Spill Determination**	Spill Did Occur
Action Supported on Date Listed	**Action Determination**	No Immediate Action
	Actions Recommended	Confirm Clean-up
	Advisory Recommendation	none
	Describe Actions to Take	No action needed, small spill and quickly cleaned up

Emergency Response Contacts

Fill out form completely prior to an emergency!

Farm Name and Address: (any special directions, landmarks, or locations of lagoons, pumps, etc.)		
	Phone Number	**Cell Number**
Owner/Operator		
Owner/Operator		
Emergency Contacts	**Contact Person (or Company)**	**Phone Number**
Fire/Rescue		911 or
County Sheriff		911 or
Farm Emergency Coordinator		
DNR Hazardous Spill Line		1-800-943-0003
DNR Permit Contact/Warden		
Veterinarian		
Equipment/Supplies	**Contact Person (or Company)**	**Phone Number**
On-Farm Equipment Operator		
Excavation Contractor		
Manure Hauler		
Septic Tank Pumping Truck		
Mortality Disposal Contractor		
Local Government Contacts	**Contact Person (or Company)**	**Phone Number**
Town Chairman		
LCD County Conservationist		
NRCS District Conservationist		

NPM

This publication is available from the Nutrient and Pest Management Program, please contact us: by phone (608) 265-2660, email: npm@hort.wisc.edu or visit our website at ipcm.wisc.edu

June 2014

Appendix V: Draft Public Advisory Messages

Public Advisory Template A: Low Risk

Date

Dear Resident;

A manure spill event has occurred in rural St. Croix County within one mile of your property that may have an effect on the quality and safety of your drinking water. The spill occurred within the shaded area on the map enclosed. Because contamination can travel, there is a risk that your drinking water could become impacted. It is recommended that you test your drinking water for bacteria (total coliform and E. coli) to ensure that it is safe for consumption. The Wisconsin Department of Natural Resources (DNR) and Public Health also recommend that well water be tested annually or whenever there is a change in color, smell, taste, or flow.

You can test your water by yourself by obtaining a water test kit at one of the following locations: ***Community Development Department***, St. Croix County Government Center, 1101 Carmichael Rd, Hudson, WI 54016 (715-386-4680); ***Public Health Department***, St. Croix County Services Center, 1752 Dorset Lane, New Richmond, WI 54017 (715-246-8263); or ***Agricultural and Education Services Center***, 1960 8th Ave, Baldwin, WI 54002 (715-531-1930). A list of other State of Wisconsin certified bacteria testing laboratories can be found at:

https://dnr.wi.gov/dwsviewer/BactiLab

Until your test results show that your water is safe to drink, bottled water or an alternate source should be used for drinking, making baby formula, and washing fresh fruits and vegetables. Water used in food preparation that reaches a boil, such as with pasta or oatmeal, can be considered safe.

It is important to note that positive bacteria test results can not necessarily be attributed to the spill described above.

Sincerely,

Kelli Engen | **Public Health - Public Health Administrator**
Health and Human Services
1752 Dorset Ln New Richmond WI 54017
T: 715-246-8363 | F: 715-246-8367
Kelli.Engen@sccwi.gov

Public Advisory Template B: Moderate Risk

Date

Dear Resident;

A manure spill event has occurred in rural St. Croix County that may have an effect on the quality and safety of your drinking water. The spill includes the area shaded on the map enclosed. The spill entered public waters which can be connected to groundwater in St Croix County's karst geology. Because of the close proximity to water wells, there is a moderate risk of contamination of your drinking water due to the spill. You were notified due to proximity to the spill, or due to your location downstream from the spill. It is recommended that you test your drinking water for bacteria (total coliform and E. coli) as soon as possible. The Wisconsin Department of Natural Resources (DNR) and Public Health also recommend that well water be tested annually or whenever there is a change in color, smell, taste, or flow.

Until your test results show that your water is safe to drink, bottled water or an alternate source should be used for drinking, making baby formula, and washing fresh fruits and vegetables. Manure contamination of well water is a serious short-term health risk because it means that illness-causing bacteria and other organisms can be in the water. Harmful bacteria in your water can cause stomach flu-like symptoms such as nausea, vomiting and diarrhea. Included in this package is a drinking water bacteria testing kit, which includes instructions on how to collect the sample and where to drop it off. **This test is provided to you free of charge**.

You can test your water by yourself by obtaining a water test kit at one of the following locations: ***Community Development Department***, St. Croix County Government Center, 1101 Carmichael Rd, Hudson, WI 54016 (715-386-4680); ***Public Health Department***, St. Croix County Services Center, 1752 Dorset Lane, New Richmond, WI 54017 (715-246-8263); or ***Agricultural and Education Services Center***, 1960 8th Ave, Baldwin, WI 54002 (715-531-1930). A list of other State of Wisconsin certified bacteria testing laboratories can be found at:

https://dnr.wi.gov/dwsviewer/BactiLab

It is important to note that positive bacteria test results can not necessarily be attributed to the spill described above.

Sincerely,

Kelli Engen | Public Health - Public Health Administrator
Health and Human Services
1752 Dorset Ln New Richmond WI 54017
T: 715-246-8363 | F: 715-246-8367
Kelli.Engen@sccwi.gov

Public Advisory Template C: Significant Risk

Date

Dear Resident;

A manure spill event has occurred in rural St. Croix County that has impacted domestic wells in your vicinity and may affect the quality and safety of your drinking water. The spill is widespread and includes the shaded areas on the map enclosed. Because of the proximity to water wells, the presence of sinkholes in the soil, and the thawing that occurs in the spring, there is a significant risk of contamination of your drinking water due to the spill. If you live in this part of the county it is **highly** recommended that you test your drinking water for bacteria (total coliform and E. coli) as soon as possible.

Manure contamination of well water is a serious short-term health risk because it means that illness-causing bacteria and other organisms can be in the water. Harmful bacteria in your water can cause stomach flu-like symptoms such as nausea, vomiting, and diarrhea. **Until test results show that your water is safe to drink, use bottled water or an alternate source for drinking, making baby formula, and washing fresh fruits and vegetables.** Water used in food preparation that reaches a boil, such as with pasta or oatmeal, would be considered safe. When washing dishes, a capful of unscented bleach in the final rinse will sanitize dishes. Included in this package is a drinking water bacteria testing kit, which includes instructions on how to collect the sample and where to drop it off.

You can test your water by yourself by obtaining a water test kit at one of the following locations: ***Community Development Department***, St. Croix County Government Center, 1101 Carmichael Rd, Hudson, WI 54016 (715-386-4680); ***Public Health Department***, St. Croix County Services Center, 1752 Dorset Lane, New Richmond, WI 54017 (715-246-8263); or ***Agricultural and Education Services Center***, 1960 8th Ave, Baldwin, WI 54002 (715-531-1930).

The Department of Natural Resources (DNR) and Public Health recommend that well water be tested annually or whenever there is a change in color, smell, taste, or flow.

It is important to note that positive bacteria test results can not necessarily be attributed to the spill described above.

Sincerely,

Kelli Engen | Public Health - Public Health Administrator
Health and Human Services
1752 Dorset Ln New Richmond WI 54017
T: 715-246-8363 | F: 715-246-8367
Kelli.Engen@sccwi.gov

Appendix VI: Municipality Notification Template

Municipality Notification Template

Date

Dear [INSERT NAME(S) OF MUNICIAL OFFICIAL(S) HERE],

A manure spill event has occurred in St. Croix County within [INSERT MUNICIPALITY NAME] that may have an effect on the quality and safety of drinking water. The spill occurred within the shaded area on the map enclosed. Because contamination can travel, there is a risk that drinking water could become impacted to nearby residents. St. Croix County Public Health has reached out to select residents and recommended that they test their drinking water for bacteria (total coliform and E. coli) to ensure that it is safe for consumption. Please see the attached list of residents that have been contacted, along with a copy of the letter that was sent.

Residents can test their water by obtaining a water test kit at one of the following locations: ***Community Development Department***, St. Croix County Government Center, 1101 Carmichael Rd, Hudson, WI 54016 (715-386-4680); ***Public Health Department***, St. Croix County Services Center, 1752 Dorset Lane, New Richmond, WI 54017 (715-246-8263); or ***Agricultural and Education Services Center***, 1960 8th Ave, Baldwin, WI 54002 (715-531-1930).

Until their test results show that the water is safe to drink, bottled water or an alternate source should be used for drinking, making baby formula, and washing fresh fruits and vegetables. Water used in food preparation that reaches a boil, such as with pasta or oatmeal, can be considered safe.

It is important to note that positive bacteria test results can not necessarily be attributed to the spill described above.

St. Croix County Resource Management Division and the Wisconsin Department of Natural Resources are in the process of remediating the spill.

Should any residents contact you or your staff with any questions or concerns regarding the spill or their water quality, please refer them to the Kelli Engen at the contact information below.

Sincerely,

Kelli Engen | **Public Health - Public Health Administrator**
Health and Human Services
1752 Dorset Ln New Richmond WI 54017
T: 715-246-8363 | F: 715-246-8367
Kelli.Engen@sccwi.gov