

**Priority Concerns:**  
Ground and Surface Water

Household Hazardous Waste,  
Waste Pesticides and  
Mercury Products

## **PRIORITY CONCERN: Household Hazardous Waste, Waste Pesticides and Mercury Products**

### **Water Management Plan Goal:**

*Reduce the generation, disposal and potential pollution of ground and surface water from household hazardous waste, pesticides and problem materials.*

### **Priority Concern**

Waste from residential, business, industry and agriculture sources can pollute ground and surface water. Ground water quality, pesticide pollution and run-off from urban and rural land uses were identified as high priorities in the planning process. MDA monitoring of surface waters in Blue Earth County shows the presence of pesticides in surface waters. The pesticide, acetochlor, is identified by the MPCA as an impairment of surface waters in Blue Earth County. Mercury is identified by the MPCA as an impairment of many surface waters in Blue Earth County. Ongoing waste handling and recycling programs are a priority.

### **Priority Concern Assessment**

#### **Background**

The management of waste is regulated by many different Federal and State Laws, depending on the type of waste. In Minnesota, hazardous wastes related to agriculture, business and industry are generally managed directly by State agencies with regulations and State-issued permits. Standards and limits related to hazardous substances in surface and ground water are regulated and monitored by State agencies. State and Federal regulations and guidelines determine which hazardous substances are monitored, monitoring procedures and reporting requirements.

As required by the State and MPCA, Counties are responsible for waste management planning, regulation and implementation of solid waste, recycling and household hazardous waste collection and disposal regulations and programs. The County's Solid Waste Management Plan is approved by the MPCA and addresses many aspects of waste management. The County has a strong history of managing waste recycling and disposal beginning in the mid 1980s. The County owns and operates the Ponderosa Landfill and the Household Hazardous Waste Facility (HHW Facility). The County contracts for operation of the County Recycling Center. The County also educates residents about reducing waste in general as well as recycling and disposal.

The County Water Management Plan addresses the County's role in managing the collection, recycling or disposal of the types of waste identified as concerns during preparation of the PCSD, or are associated with a 303d listed impaired water such as pesticides and mercury.

## **PESTICIDES**

Pesticide run-off from both urban and rural land uses was identified as a high priority in the planning process. The MDA also recommended the County address pesticides as a priority concern during the Priority Concerns Scoping Document input process. The MDA is the lead agency for pesticide monitoring, and several locations in Blue Earth County are monitored. Although many different pesticides are used and detected in surface waters in Blue Earth County, acetochlor is a chemical of concern. Acetochlor is a corn herbicide. The MPCA has added acetochlor impairments in Blue Earth County to the draft 2008 Impaired Waters List. Acetochlor is a corn herbicide. Pesticides are discussed in more detail in other sections of the plan. More information about the sources and management practices related to acetochlor will be available as the MPCA prepares a TMDL report.

The potential for surface water impacts from waste pesticides is probably relatively small when compared with run-off from agricultural fields. Waste pesticides, if in leaking containers or dumped, are likely a greater potential threat to ground water. Pesticides are relatively expensive so farmers generally do not purchase excessive amounts resulting in large quantities of waste. Unused and waste pesticides are not accepted by pesticide dealers. The HHW Facility is currently the only location in the area where farmers can safely and legally dispose of waste pesticides.

## **MERCURY**

Many surface waters in Blue Earth County are impaired by mercury. Although the main source of mercury impairments is atmospheric deposition of mercury, reducing use and managing the disposal of products containing mercury is part of the State's mercury TMDL plan. Fluorescent bulbs, thermostats and thermometers are common examples of mercury products found in homes and businesses. Breakage of these products releases mercury into the environment. Raw mercury is also found in schools, industry and dental-related businesses, and some individuals have containers of mercury in their homes.

Fluorescent bulbs and thermostats are banned from landfill disposal. Businesses and homeowners must keep spent bulbs and take to a location authorized to collect and store the bulbs for recycling. The use of fluorescent bulbs for energy conservation is being heavily promoted nationally by Federal and State government, the electric power industry, and bulb manufacturers and retailers. Programmable, mercury-free thermostats are also promoted to reduce energy use in homes. Thermostats must also be taken to locations authorized for collection and disposal.

Other mercury-containing wastes banned from landfill disposal include motor vehicle and appliance parts and other electrical devices. Salvage yards and vehicle repair shops must manage mercury-containing parts according to Minnesota rules. Thermostats are collected by furnace and air conditioning dealers and installers for disposal. Alternatives to mercury are being used in thermostats and thermometers which may reduce mercury from these sources. The MPCA oversees these mercury generators.

## **HOUSEHOLD HAZARDOUS WASTE**

Residential wastes are the most difficult to manage due to the practicality of educating and regulating personal choices and small quantities from dispersed sources. Pesticides, solvents, paints, and other household chemicals and products are banned from landfills. Residents must separate these materials from their garbage and dispose of at locations authorized to collect the materials or the County Household Hazardous Waste Facility. Businesses using infrequent and/or small quantities comparable to a household are also sources of hazardous waste.

In addition to potential pollution from misuse and improper disposal of household hazardous waste, illegal dumping of these materials in storm drains, ditches or on the ground is also a concern. Providing convenient access to disposal sites can reduce the amount of illegal dumping.

## **BLUE EARTH COUNTY PROGRAM**

In Blue Earth County, most wastes from residential, commercial and industrial sources are disposed of in the local, integrated waste management system. This involves municipally-contracted collection of mixed wastes from residents in municipalities and privately-contracted collection from business and industry. Collected wastes are taken to a processing facility where the wastes are separated for use as refuse derived fuel at the Wilmarth Waste-to-Energy Facility in Mankato or disposed of at the Ponderosa Landfill in Blue Earth County. Ash residual waste from the Wilmarth Waste-to-Energy Facility is disposed of in a landfill owned by Xcel Energy in Blue Earth County. Wilmarth burns waste from other parts of the State including the Twin Cities metro area.

Some waste materials are banned from landfills and require special handling by the consumers. For these types of materials the County either provides a location for collection or educational information instructing citizens where and how to properly dispose of these materials.

### **Regional Household Hazardous Waste Facility**

Blue Earth County operates a Regional Household Hazardous Waste Facility (HHW) for residential and very small quantity business generators. Very small quantity generators are businesses disposing of less than 220 pounds monthly. Residents bring their waste pesticides, paints, solvents, and cleaners to the HHW Facility. The HHW facility opened in 1993 and is heavily used with regular hours open to the public between April and October. The County and Cities in the County provide information to the public about the importance and availability of the facility, including hours of operation, location and materials accepted.

Many of the surrounding Counties are partners with Blue Earth County with varying levels of services but generally include at least one mobile collection in each County every year. Residents of Nicollet, Sibley and Le Sueur County can bring their household hazardous waste to the facility during regular hours. Each year since the facility opened in 1993, more than 2,500 households bring their waste to the facility annually.

The County's Household Hazardous Waste Facility and program is funded by the MPCA, local waste collection and facility licensing fees, and the County.

### **Mercury products**

Mercury containing products, including thermometers, thermostats, fluorescent bulbs, and button batteries can be brought to the HHW Facility. Fluorescent bulbs are the largest volume of mercury products brought the HHW Facility. Fluorescent bulbs are also accepted at one retail lighting store in Mankato. It is expected that the number of fluorescent bulbs requiring special handling and disposal will increase within the planning period as energy conservation and the use of fluorescent bulbs is being heavily promoted nationally by Federal and State government, the electric power industry, and bulb manufacturers and retailers. Thermostats are also accepted at the HHW Facility and mailed to an MPCA-approved recycling corporation for processing and disposal.

The source of funding for the fluorescent bulb recycling program is Xcel Energy and Blue Earth County. Thermostat recycling is funded by Thermostat Recycling Corporation.

### **Agricultural Waste Pesticides**

Retailers and distributors do not accept waste pesticides. There is only one location for waste pesticide collection in Blue Earth County: the HHW Facility. The agricultural waste pesticide program has operated inconsistently in Blue Earth County since 1993. This is due to limited funding available from the MDA. Neighboring Counties are also partners with Blue Earth County. Under a two year contract with Blue Earth County and MDA at this time, the partnering Counties include: Nicollet, Sibley, Watonwan and Brown. Farmers from Blue Earth or any of the partnering Counties must contact the HHW in advance but can bring their waste pesticides to the facility during regular hours.

The pesticide program is funded by the MDA from proceeds of taxes on sales of pesticides. Future funding levels for this program at the County level is unknown as MDA has cut, restored and reduced funding for this program in the past few years.

## **IMPLEMENTATION PLAN**

### **Household Hazardous Waste, Waste Pesticides and Mercury Products**

#### **Water Management Plan Goal:**

*Reduce the overall generation, disposal and potential pollution of ground and surface water from household hazardous waste, pesticides and problem materials.*

#### **PRIORITY CONCERN:**

Waste from residential, business, industry and agriculture sources can pollute ground and surface water. Ground water quality, pesticide pollution and run-off from urban and rural land uses were identified as high priorities in the planning process. MDA monitoring of surface waters in Blue Earth County shows the presence of pesticides in surface waters. The pesticide, acetochlor, is identified by the MPCA as an impairment of surface waters in Blue Earth County. Mercury is identified by the MPCA as impairment of many surface waters in Blue Earth County.

#### **GUIDING PRINCIPLES:**

- » Pesticides, hazardous wastes and mercury products, including manufacture, distribution, use and disposal are regulated by Federal and State laws.
- » Implementation of waste management programs is the responsibility of individual, private, State and local partners.
- » Convenient access to disposal options increases participation and decreases the potential for improper ground and surface water disposal.
- » Existing local programs provide opportunities for residential collection and disposal of hazardous waste and problem materials.
- » Ensuring proper disposal of hazardous wastes and problem materials from agriculture, business and industrial sources is the responsibility of State agencies and the waste generators.

#### **ONGOING ACTIVITIES:**

The County will continue to operate the Regional Household Hazardous Waste Facility and provide education to residents about opportunities to reduce, recycle and properly dispose of hazardous wastes and problem materials. Operation of HHW facility is funded by State grants, landfill user fees and surcharges and license fees.

#### **WATER MANAGEMENT PLAN:**

Responsible use and disposal of waste by individuals is the best means to reduce pollution. Education efforts will be expanded locally to address waste reduction, recycling and disposal of hazardous waste and problem materials in a surface water context.

Land best management practices to address agricultural pesticide run-off are addressed in Agricultural Runoff, Erosion and Pesticide Section of the plan, and urban management practices are addressed in the Urban and Rural Development and Storm Water Run-off section of the plan.

**Objective 1: Increase public awareness of responsible use of hazardous substances and disposal of wastes and problem materials.**

**Action 1:** Identify opportunities to expand and enhance education efforts to target audiences, including the SWCD, NRCS, County and other local partners.

**Action 2:** Incorporate general information related to responsible use of hazardous substances and disposal of wastes and problem materials in County and NRCS/SWCD newsletters and other public places.

**Objective 2: Ensure continued agricultural waste pesticide disposal opportunities in Blue Earth County.**

**Action:** Work with MDA to continue operating agricultural waste pesticide disposal sites in Blue Earth County.

**Objective 3: Ensure continued mercury product recycling opportunities in Blue Earth County.**

**Action:** Work with MPCA and Xcel Energy to continue mercury product recycling opportunities.

