Agricultural Chemical Facilities and Applicators: Management Ideas for Wellhead Protection Programs

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Agricultural chemical facilities (such as agricultural cooperatives) and applicators (private individuals as well as commercial service-providers) engage in storage, distribution, handling, use and disposal of fertilizers and pesticides (collectively referred to as "ag chemicals"). Fertilizer and pesticide facilities have specific state requirements governing their operations, including storage and waste-handling. Depending on the licenses they hold, facilities may also have incident response plan requirements. For pesticide applicators, there are two classifications of licenses: Commercial pesticide applicators apply pesticides for hire, and may not apply any general or restricted use pesticide until they receive a proper license and identification card. Noncommercial (private) pesticide applicators apply pesticides as part of their job duties on sites owned, rented or leased by their employer, and may not apply restricted use pesticides without a proper license or identification card. Additional information regarding ag chemical facilities and applicators is included in this document and is also available from the Minnesota Department of Agriculture (MDA).

Ag chemical facility and applicator activity in wellhead protection (WHP) areas may pose a contamination risk to public drinking water sources. The principal sources of such risk include mismanagement of product (either in storage, mixing or during field application), improper disposal, inadequate infrastructure for containment, backflow, runoff, or spill prevention at facility water supply wells. Most water supply contamination risks from ag chemical facilities and applicators are considered *point source contamination* risks as opposed to the "nonpoint" source contamination. Nonpoint source contamination generally comes from more uncontrolled sources such as field-use of ag chemicals, where over-application, improper timing of application, improper ag chemical selection or use, or specific tillage practices result in nutrient and pesticide loss to the environment.

Recommended Best Management Practices (BMPs) developed by the Minnesota Department of Agriculture (MDA) and the University of Minnesota Extension Service (MES) are designed to provide facilities, applicators and communities with the educational and informational tools necessary to minimize ag chemical point source contamination and protect workers from potentially harmful exposure. Public water suppliers will want to be certain that ag chemical facilities and applicators operating within the

wellhead are properly documented and monitored for compliance with federal, state and local laws. It is important to note that some facilities and applicators may not be located within the WHP area but may operate or provide services within the WHP area.

The following pages provide a list of educational, service and regulatory activities a public water supplier might choose to include in plans to manage facilities and applicators in a WHP area. These activities are **not required** of public water suppliers, but provide a **menu of choices** – the methods chosen will depend on the local situation. It is also important to note that facilities and applicators are not always a problem in WHP areas nor are they the only problem to focus on. Many land uses and activities can be sources of potential contamination in WHP areas.

Education:

Education Activities related to Agricultural Chemical Facilities and Applicators in WHP Areas

Personal Contacts
Workshops/Training
Special Events
Information Packets
Newsletters
Recognition Programs

If a public water supplier chooses to develop management strategies for land-use issues involving facilities and applicators in the WHP area, education should be included as a component of the management plan, regardless of whether other methods are also used. Messages to highlight in an educational program for facilities and applicators include:

- special concerns regarding facilities within the WHP areas, such as storage and handling of chemicals, and proper registration and permits;
- promotion of BMPs and guidelines for particular ag chemicals[1];
- special concerns regarding proper ag chemical education, training;
- special concerns regarding necessary licenses for fertilizer sales/distribution, fertilizer use, pesticide use, pesticide dealers, aquatic pest control, structural pest control, commercial and noncommercial pesticide applicators;
- awareness and coordination of wellhead concerns when siting new facilities; and
- special concerns regarding necessary certification of private pesticide applicators.

The MDA has established a Water Protection and Nutrient Management team to address agriculture-related wellhead protection issues throughout the state (see *Appendix A* for map illustrating MDA Water Protection and Nutrient Management staff responsibilities and contact information). In addition, the MDA has staff located throughout the state to provide direct assistance in the areas of ag chemical use,

[1] Pesticides and fertilizers are an important part of farming operations. Improper use of these inputs in the field can result in nonpoint source pollution problems and crop production inefficiencies. A separate publication, Agricultural Crops, Nutrients and Pesticides: Management Ideas for Wellhead Protection Programs, addresses the educational, service and regulatory aspects of crop production and its potential impacts on public water supplies.

Two additional, companion publications in this series include: Turf, Lawn and Garden Care: Management Ideas for Wellhead Protection Programs, which addresses educational, service and regulatory aspects of turf and lawn care nutrients and pesticides; and Feedlots and Manure Management: Management Ideas for Wellhead Protection Programs, which addresses the educational, service and regulatory aspects of manure as a crop nutrient and potential environmental contaminant.

storage, permitting and licensing (*Appendix B* includes a list of MDA regional field staff and a map illustrating their geographical reach). Finally, each Minnesota county has several offices that can provide assistance to local water suppliers and that disseminate educational materials about facilities and applicators. These offices include the Soil and Water Conservation District (SWCD), the Natural Resource Conservation Service (NRCS), the Farm Service Agency (FSA), and the state Board of Soil and Water Resources (BSWR). The University of Minnesota also maintains regional Research and Outreach Centers and Extension Service offices. Public water suppliers should consider coordinating educational activities regarding facilities and applicators with these offices. *NOTE: The MDA is the lead state agency for technical assistance and regulatory enforcement of laws relating to agricultural chemicals, and facilities and applicators*.

Listed below are a variety of educational activities that public water suppliers can undertake; these can be used as stand-alone educational activities or paired with voluntary or regulatory actions to address facility siting and operations, and the activities of ag chemical applicators.

Personal Contacts: One of the best ways to educate facilities and applicators operating within or supplying services to WHP areas is through personal contacts. Public water supply staff could work with MDA field staff where available to jointly contact each facility and applicator within a WHP area to discuss storage, handling and use of ag chemicals. Where compliance or certification and licensing issues must be addressed, personal contacts should be coordinated with MDA (see *Appendix B*). As part of these contacts, which can be made by phone, letter, or in-person, print materials can be distributed. Certain print materials or templates are available from MDA. Such personal contacts can be an effective educational tool. Public water suppliers should consider the number of facilities and applicators in the WHP area and work with MDA field staff to coordinate available time for such personal contacts.

Workshops/Training: Public water suppliers can encourage facilities and applicators operating within or providing services to WHP areas to attend workshops and seminars relating to their permits, licenses or certifications. To do this, the public water supplier can co-sponsor, with MDA and other local units of government, workshops or seminars for facilities and applicators operating within or supplying services to WHP areas. Where existing educational programs are available, public water suppliers can provide facilities and applicators with schedules of existing workshops and seminars. To ensure that crop producers are not discouraged from attending non-mandatory training due to cost, public water suppliers might consider providing cost-share assistance for workshop registrations. Other workshops or training programs might focus on the promotion of farming methods or incentives that reduce the use of ag chemicals within the WHP area (see *Appendix D* for further information).

Special Events: As an educational technique, public water suppliers can sponsor special events and invite all interested audiences to attend. One suggestion is to plan an initial open house or field day entitled "Welcome to Wellhead Protection," after the contaminant inventory and wellhead delineation are complete. At this event, the significance of the WHP area can be explained, and information on the importance of managing all contaminant sources found in the inventory can be provided. Information on facility and applicator permitting and BMPs can be a part of this event.

Follow-up special events specific to facilities and applicators, and addressing their specific concerns, can also be planned. A facility or applicator that is in compliance with specific BMPs could host an open

house for the WHP planning committee, or for other facilities and applicators within the wellhead, allowing interested parties to learn from one another.

Information Packets: Public water suppliers can provide facilities and applicators with a packet of printed information as another form of education and outreach. A variety of print materials are available addressing chemical storage, handling, application and disposal methods, and spill response and cleanup criteria (see *Appendices C & E* for lists of fact sheets and guidance documents related to ag chemical facilities, applicators and incident response). Additional materials are available from the regional MDA staff or on the World Wide Web page of the MDA (see *Appendix D* for a partial list of useful Internet addresses). These materials can be distributed through a variety of methods, ranging from personal or mail delivery to distribution at community-wide events. The delivery mechanism will depend on the local situation (numbers of producers within your WHP area, ways in which your community receives information, etc.). Costs will vary, depending on the delivery mechanism chosen.

Newsletters: Articles in newsletters can be useful in educating a wide variety of audiences. Public water suppliers may consider developing a newsletter specifically for facilities and applicators operating within or supplying services to the WHP area. The newsletter could highlight a variety of issues including BMPs (including Integrated Pest Management planning and the use of non-chemical methods of pest control), guidance to permitting and license, financial assistance for spills cleanup, and training/workshop announcements. Developing a newsletter specifically for the WHP area will help to stress the concept of the "special protection area" and will allow public water suppliers to reach facilities and applicators on a variety of topics. Providing articles to existing newsletters that are read by many facilities or operators can be a cost-effective way to share information.

Recognition Programs: Public water suppliers might use recognition programs as an educational tool in conjunction with special events. Facilities and applicators that participate in wellhead protection planning deserve recognition for their involvement and concern. Cities could provide certificates, plaques, or other recognition awards to facilities and applicators that meet certain criteria established by the city. The qualifying criteria could include: attending workshops, completion of required registration and compliance, improvement of facility infrastructure or applicator machinery, completion of spills cleanup, etc. Recognition could also be given to crop producers who successfully farm using fewer ag chemicals through the development of Integrated Pest Management plans. These programs and their criteria could be established in conjunction with the MDA or other organizations that provide technical and regulatory assistance to facilities and applicators.

Services:

Technical/Financial Assistance Services related to Agricultural Chemical Facilities and Applicators in WHP Areas

- Internet Assistance/Guidance Documents
- Incident Response
- Locational Data & Global Positioning for Facilities
- Certification and License Programs
- Waste Pesticide Collection
- Tracking & Evaluation

In addition to education, public water suppliers can provide facilities and applicators with services that help manage a potential contaminant source. Services go beyond education but do not involve regulation in the strictest sense of the word. For facilities and applicators, services can include both technical assistance and financial assistance.

Internet Assistance/Guidance Documents: Many educational and planning tools are readily available to public water suppliers through online computer connection to the Internet and the World Wide Web of information sources. State and federal organizations mentioned in this document all maintain "home pages" that contain information maintained by the organization or that contain links to other home pages. Some organizations offer online technical assistance, permitting forms, and guidance documents related to ag chemical management planning. Staff from these organizations can assist WHP planning teams, facilities and applicators with accessing such information. See *Appendix D* for a partial list of useful Internet addresses.

Incident Response: The MDA provides technical and, in certain cases, financial assistance to aid in the investigation and cleanup of ag chemical incidents in which uncontrolled releases to the environment occur. In the case of voluntary investigation and cleanups, the MDA Agricultural Chemical Incident Response Unit provides technical assistance to individuals that may or may not be responsible for the incident. Public water suppliers may want to be certain spills of ag chemicals are properly inventoried within the WHP area, and then promote the voluntary cleanup of such releases. Where voluntary investigation and cleanup is not conducted, regulatory actions may ensue. A complete list of MDA guidance documents related to incident response is provided in *Appendix E*.

Locational Data & Global Positioning for Facilities: Public water suppliers could assist their management efforts and MDA regulatory programs by coordinating with the MDA the acquisition of locational data (e.g., address, property boundaries, etc.) and satellite global positions of facilities within the WHP area. Long-term tracking, accountability and management of data are facilitated by the gathering of such data.

Certification and License Programs: The MDA certifies the competency of agricultural technicians and professionals, and sets requirements for installation and maintenance of certain agricultural infrastructure, so that scientific, ethical and structural standards of excellence can be maintained in the area of supply services. Public water suppliers may want to team up with MDA staff to assist facilities and applicators operating within or supplying services to the WHP area in obtaining the

appropriate information for proper licensing and certification. Listed below are the more common facility and applicator requirements, permits, licenses and certifications established in Minnesota statute and rule. Guidance and training for facility requirements is available through the MDA.

Ag Chemical Facility Requirements (Including Containment, Licenses, Permits, Registrations and Installation/Maintenance Codes)	
	Ag-Lime Materials
	Anhydrous Ammonia
	Chemigation
	Dry & Liquid Fertilizer
	Specialty Fertilizers
	Soil & Plant Amendments
	Pesticides
Categories for Commercial & Non-Commercial Pesticide Applicator Licenses	
	General Ground
	General Aerial
	Agricultural Herbicide, Fungicide & Insecticide
	Turf & Ornamentals
	Aquatic (non-commercial)
	Forest Spraying
	Seed Treatment
	Rights-of-Way
	Agricultural Pest Control – Animal
	Mosquito Control
	Food Processing Pest Control
	Stored Grain Pest Control (non-commercial)
	Pocket Gopher
	Wood Preservative
	Sewer Root Control – Journeyman
	Sewer Root Control – Master
	Aquatic Pest Control (commercial) – Master & Journeyman
	Structural Pesticide Control – Master & Journeyman
	Structural Pesticide Control – Fumigator

Training opportunities for pesticide applicators are frequently available and are located throughout the state. Study materials have been developed to assist applicators in obtaining all categories of licensure and are available from the MES. General information about applicator licensing and training opportunities is available from the MDA and from http://www.crc.agri.umn.edu/~mnhelps/patest/cpatrecert01.html.

The MDA also maintains a list, available on the Internet, of all licensed and certified private pesticide applicators in the state. The list is useful to assist dealers in complying with state law (e.g., to prevent sales of restricted-use pesticides to unlicensed or non-certified applicators) and to assist interested parties, such as MES, in setting up training opportunities.

Waste Pesticide Collection: Many pesticides become unusable due to physical changes or loss of efficacy as a result of storage or age. Some pesticides are banned from use by federal or state government before they are completely used. Loss of pesticide labels or directions for use, or lack of future need, also result in unwanted or unsafe pesticide storage. It is illegal to bury, burn or discard a pesticide or its container. State-sponsored waste pesticide collections provide a means to remove wastes and help pesticide users comply with the law. Public water suppliers and other local authorities may want to work with the MDA to establish a waste pesticide collection program for facilities, applicators and households within a WHP area.

Minnesota Department of Agriculture Waste Pesticide Collection Staff:
Stan Kaminski, 651-297-1062, stan.kaminski@state.mn.us
Sharon Emert, 651-297-4870, sharon.emert@state.mn.us
Outstate, 1-800-657-3986 (7:30 a.m. - 4:30 p.m.)

Tracking & Evaluation: Public water suppliers could undertake facility and applicator tracking and evaluation activities as part of a management strategy. Tracking and evaluation activities may require follow-up action by appropriate regulatory or technical assistance staff if there is an indication of potential problems.

- Survey facilities and applicators working within or providing services to the WHP area to determine information needs. Based on the results of the survey, public water suppliers could target educational efforts.

- Request notification from MDA when new facilities are permitted with the WHP area.

- Work with state and local authorities to ensure that public water suppliers are notified when new facilities or applicators are permitted, licensed or certified for operation within the WHP area. Using a questionnaire in conjunction with the state permitting process, public water suppliers could identify new facilities and applicators within the WHP area and alert them to management measures or other requirements related to a WHP plan. This information could be shared among the MDA or other appropriate authorities to ensure that facilities and applicators are aware of their responsibilities under federal and state laws, and under any local land use laws.

- Soil or groundwater monitoring is also an option. Public water suppliers may choose to conduct periodic soil or groundwater sampling at or near facilities if the facilities are not under other federal or state obligation to conduct such sampling. This may alert the city of potential contamination before it reaches the water supply well.

- A public water supplier might consider asking a state or local permitting authority to require a facility to install monitoring wells or conduct periodic soil sampling as a condition of locating within a WHP area.

Regulation:

Regulatory Options related to Agricultural Chemical Facilities and Applicators in WHP Areas

Prioritizing Assistance to and Inspection of Facilities or Applicators
Licensing/Certification Requirements
Incident Reporting
Adoption of New Ordinances
Zoning

Although some regulatory options for ag chemical facilities and applicators may be available to a public water supplier through local zoning and permitting authorities, certain licensing, certification and permitting issues must be coordinated with federal and state authorities. Many federal and state regulations are designed to address environmental protection – including groundwater and surface waters used for drinking water. Public water suppliers are encouraged to defer certain regulatory activities to these organizations. Public water suppliers may want to focus their activities for facilities and applicators on education and assistance with existing, state-provided services, rather than on regulation. Regulatory activities may be more difficult to implement by public

water suppliers because of cross-jurisdictions between local governmental units and federal and state regulatory agencies.

In addition, state law prohibits local units of government from developing pesticide policies that are more restrictive than, in conflict with, or inconsistent with those set by the MDA. If local regulation is desired, options for regulatory activities are listed below. Public water suppliers should work closely with federal, state and local contacts listed in this document to ensure that existing regulatory tools – and any proposed initiatives – are coordinated with current interpretation of statute and rule.

Prioritizing Assistance to and Inspection of Facilities or Applicators: Many ag chemical educational programs and technical/financial services provided by organizations listed in this document are designed to be non-regulatory. Furthermore, many programs are designed to be informational in scope, relying on voluntary compliance with federal and state laws. However, many of these programs also have regulatory components. Public water suppliers should work closely with state and local authorities on regulatory efforts (see *Adoption of New Ordinances* below). Public water suppliers could explore the possibility of prioritizing WHP area facilities for technical assistance and inspections by state programs.

Licensing/Certification Requirements: Although state law requires that facilities and applicators obtain certain permits, licenses and certification (and these permits contain certain handling, use and disposal requirements), some public water suppliers may choose to require that new and existing facilities and applicators operating within the WHP area provide proof of proper licensing/certification before providing services to crop producers. State law may limit, however, the degree to which additional requirements are allowed (see *Adoption of New Ordinances* below). For new businesses or individuals locating in or providing services in the WHP area, proof of licensing could be required at the time of issuing a building permit, occupancy permit, or other city license. For existing businesses or individuals, visits by city staff can include a check on whether the business or individual has a license. In cases where no license or certificate is available, city staff can refer the business to the appropriate regulatory authority.

Incident Reporting: Ag chemical incidents are routinely routed through state duty officer at the Division of Emergency Services, Minnesota Department of Public Safety. The duty officer then notifies the state and county emergency response departments of the incident. Federal law governs anhydrous ammonia incidents, and anhydrous ammonia facilities must contact both the federal and state government. Public water suppliers may want to work with county emergency response officials to ensure that the county notifies the city of any ag chemical incidents reported in the WHP area.

Adoption of New Ordinances: Public water suppliers should refer to Minn. Rules, §§ 1505.4000 to 1505.4130, "Adopted Permanent Rules Relating to Local Implementation of State Pesticide Control Regulations"(the Rules) to understand the administrative procedures and requirements for local units of government to develop delegation agreements with the commissioner of the MDA. Only certain portions of the state pesticide control law are available for delegation to local units of government. The Rules outline those areas of the state pesticide control law available for delegation as:

- Identification of proper posting, according to product labeling;
- Identification of maintenance of proper safeguards, according to MDA requirements as provided in parts 1505.3010 to 1505.3150, to prevent incidents;
- Identification of proper backflow prevention devices when public water supplies are used in filling pesticide application equipment;
- Identification of proper anti-backsiphoning devices when public waters are used for filling pesticide application equipment;
- Identification of proper disposal of pesticide containers;
- Confirmation of the holding of valid state permits for chemigation;
- Identification of proper backflow prevention for chemigation systems;
- Confirmation of the holding of valid permitting for bulk storage of pesticides;
- Confirmation of the holding of valid state dealer licensing for wholesale or retail sale of restricted use or bulk pesticides; and
- Confirmation of the holding of valid licensing or certification for commercial application of pesticides or noncommercial or private application of restricted use pesticides

The Rules also contain specific staff requirements and their qualifications for implementation of a local control program. All areas of the pesticide control law related to product registration, issuance of licenses or permits, or collection of pesticide-related fees or surcharges are retained by the MDA. The Rules further state that: "Local units of government will not be allowed to ban the use or application of specific pesticide active ingredients or formulations. Ordinances by local units of government that prohibit or regulate any matter relating to the registration, labeling, distribution, sale, handling, use, application, or disposal of pesticides are preempted by Minnesota Statutes, section 18B.02."

Contact the MDA to explore potential development of state pesticide control law delegation agreements.

Zoning: A number of WHP programs across the country have adopted ordinances regulating the location and activity of new facilities or applicators in the WHP area. If a public water supplier is considering this type of ordinance, they will need to work very closely with the planning and zoning commission of the local unit of government with jurisdiction over such matters, and with the MDA to be certain local zoning ordinances do not contain language that may be preempted under the state pesticide control law.

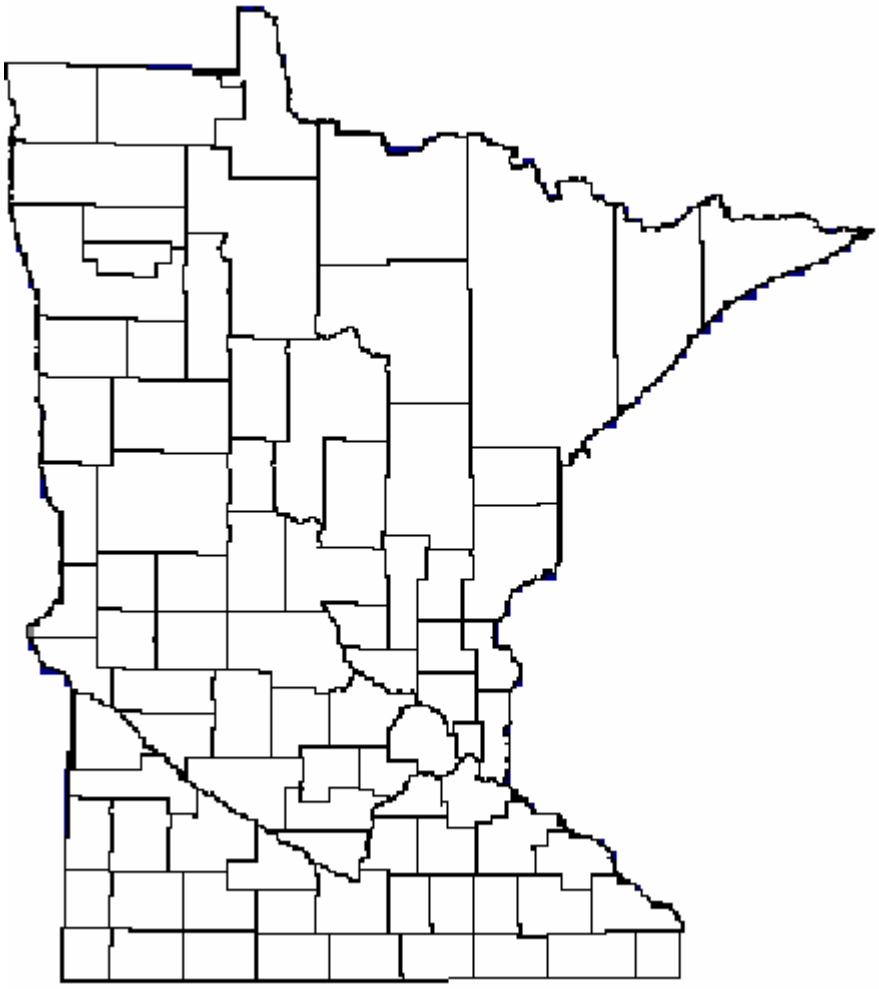
APPENDIX A

MINNESOTA DEPARTMENT OF AGRICULTURE
WATER PROTECTION AND NUTRIENT MANAGEMENT STAFF
AND CONTACT INFORMATION

Minnesota Department of Agriculture
Water Protection and Nutrient Management Staff

Contact these staff to coordinate –

- Educational, Service and Regulatory activities related to agriculture and Wellhead Protection
- Farm Survey services (Farm Nutrient Management Assessment Process – FANMAP)



MDA Special Projects Unit Supervisor
Bruce Montgomery
90 West Plato Blvd.
St. Paul, MN 55107-2094
651-297-7178
bruce.montgomery@state.mn.us

State Nutrient and Pesticide Management Plan Implementation
Joe Zachmann
651-205-4788
joseph.zachmann@state.mn.us

GIS Mapping and Nutrient Management Demonstration Plots
Don Sirucek
800-930-0518 (cellular)
218-894-0086 (office)
don.sirucek@state.mn.us

Manure Management, Soil and Manure Nutrient Testing
Jerry Floren
651-297-7082
jerry.floren@state.mn.us

Farm Survey Services (FANMAP)
Denton Bruening
651-297-4400
denton.bruening@state.mn.us

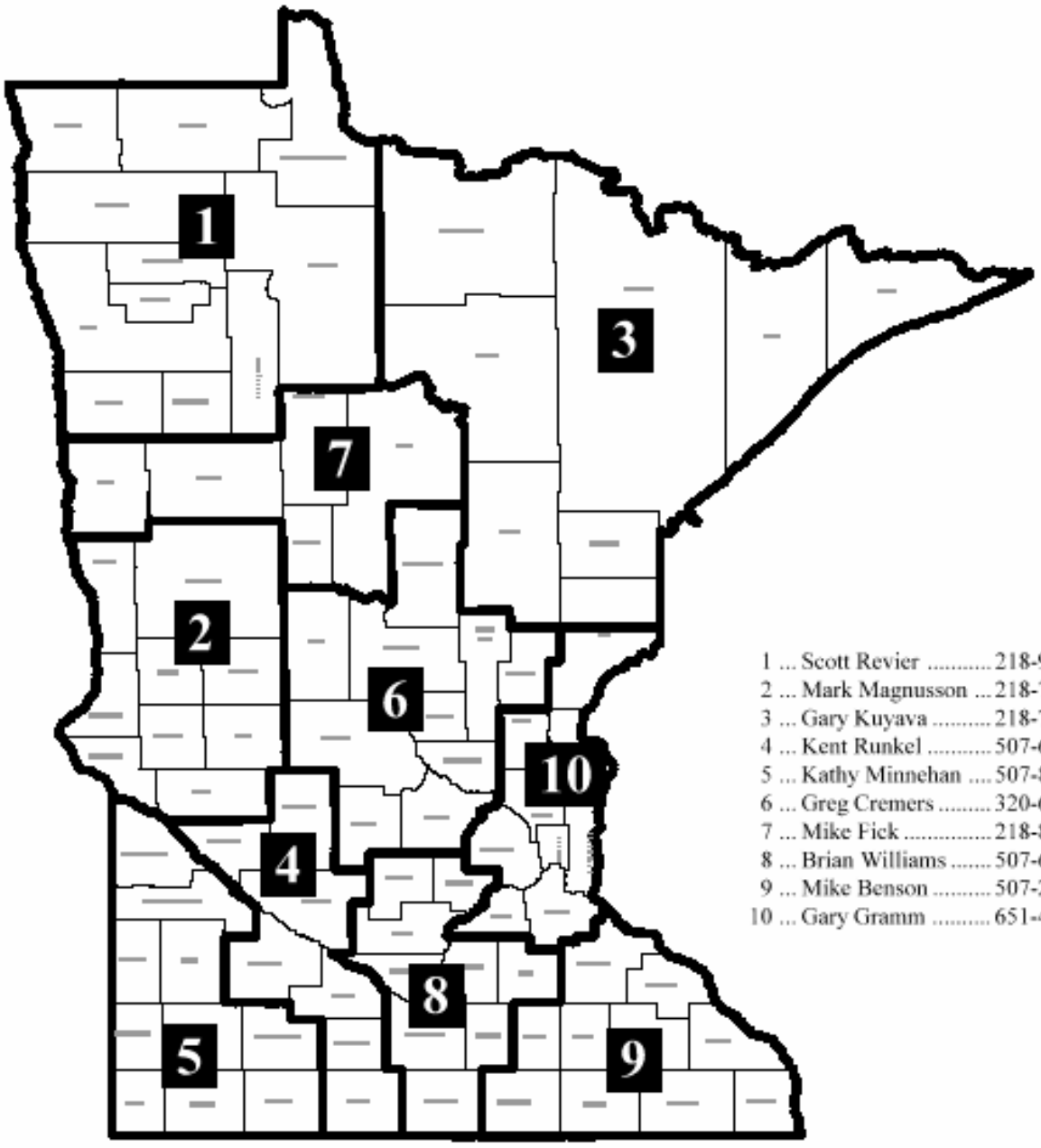
Urban Nutrients and Pesticides (Turf, Lawn and Garden Care)
Jerry Spetzman
651-297-7269
jerome.spetzman@state.mn.us

Regional responsibilities are not rigidly defined. Phone numbers and e-mail addresses are subject to change. If you have trouble reaching the above-listed staff, please call the Minnesota Department of Agriculture at 651-215-9097

APPENDIX B

LIST OF
MINNESOTA DEPARTMENT OF AGRICULTURE
FIELD SURVEILLANCE STAFF

Agricultural Chemical Investigation Area Map



1 ... Scott Revier 218-938-4076
2 ... Mark Magnusson ... 218-739-7241
3 ... Gary Kuyava 218-723-4691
4 ... Kent Runkel 507-637-3764
5 ... Kathy Minnehan 507-836-8335
6 ... Greg Cremers 320-654-8117
7 ... Mike Fick 218-863-2984
8 ... Brian Williams 507-665-6806
9 ... Mike Benson 507-280-5087
10 ... Gary Gramm 651-423-5688

AGCHEM P65 (10/99)

APPENDIX C

LIST OF
FACT SHEETS RELATED TO
AGRICULTURAL CHEMICAL FACILITIES AND APPLICATORS

Agricultural Chemical Facility Fact Sheets	
The following fact sheets are available for distribution to regulated clientele and other interested parties. The MDA is always in the process of updating existing fact sheets or creating new material for additional fact sheets. Please contact the MDA to ensure that the fact sheets you have are current.	
Pesticide Facility Requirements	rev. 1/96
Mini-Bulk Pesticide Storage Requirements	rev. 1/97
Backflow Prevention Guidelines	rev. 1/97
Precipitation Management for Liquid Fertilizer Containment	rev. 9/96
Minnesota Department of Health Farm Well Protection	rev. 1/95
Crack Repair and Maintenance for Concrete Containment	rev. 1/87
Small Package Pesticide Handling and Storage	9/98
General Requirements for Bulk Pesticide Storage Facilities	9/98
Permitting Requirements for Bulk Agrichemical Storage Facilities	2/98
Pesticide Licensing Requirements	9/98
Licensing Renewal Requirements	rev. 9/98
Financial Responsibility Requirements	rev. 9/98
Pesticide Drift and Misuse	rev. 5/99
Waste Pesticide Collection Program	rev. 9/98

APPENDIX D

A PARTIAL LIST OF INTERNET ADDRESSES FOR ORGANIZATIONS PROVIDING EDUCATIONAL, SERVICE AND REGULATORY INFORMATION ON AGRICULTURAL CHEMICAL FACILITIES AND APPLICATORS AND RELATED INFORMATION

Federal, state and local government, educational and research contacts	Internet Address	Topics
Minnesota Department of Agriculture	www.mda.state.mn.us/	Information on BMPs; BMP Loan Program; FANMAP services; water testing clinics; permitting and regulatory assistance related to fertilizer and pesticide applicators; Energy and Sustainable Agriculture Program; development of local ordinances.
University of Minnesota Extension Service	www.extension.umn.edu/	BMPs and fertilizer recommendations for specific crops, lawns, turf; Extension Education services
University of Minnesota Outreach and Research	www.maes.umn.edu/index.html	BMPs and fertilizer recommendations; current research results, field days, educational opportunities
Minnesota Board of Soil and Water Resources	www.bwsr.state.mn.us/	Provides technical, financial and administrative assistance
Minnesota Soil and Water Conservation Districts	www.mn.nrcs.usda.gov/partners/maswcd/maswcd.html	Contacts for local programs, outreach and technical and financial assistance
U.S. Department of Agriculture	www.usda.gov	National programs, outreach and technical and financial assistance
Natural Resource Conservation Service	www.nrcs.usda.gov/	National and local programs, outreach and technical and financial assistance; Nutrient Management Planning services and software
Farm Service Agency	www.fsa.usda.gov/pas/default.asp	National and local programs, outreach and technical and financial assistance
Department of Natural Resources	www.dnr.state.mn.us	Water appropriation permits for irrigation, surface and groundwater
Minnesota Pollution Control Agency	www.pca.state.mn.us	Feedlot permitting requirements and regulatory assistance
Minnesota Department of Health	www.health.state.mn.us/	Wellhead and Source Water Protection state and federal program rules and educational tools
U.S. Environmental Protection Agency	www.epa.gov	General environmental legislation, regulations, rules; technical and regulatory assistance
Nonprofit educational and research organizations	**Internet Address**	**Topics**
Minnesota Rural Water Association	www.mrwa.com	On-site technical assistance, training and outreach assistance
Minnesota Lakes Association	www.mnlakesassn.org	Educational and outreach assistance
Institute for Agriculture and Trade Policy	www.iatp.org	Sustainable solutions to challenges facing farmers and rural communities
The Minnesota Project	www.misa.umn.edu	Strengthen rural communities and protect natural resources
The Land Stewardship Project	www.landstewardshipproject.org	Promotion of sustainable farming practices that protect land and water
Various other non-profit organizations	Use Internet search engine to find information on specific topics	

APPENDIX E

LIST OF
MINNESOTA DEPARTMENT OF AGRICULTURE
GUIDANCE DOCUMENTS GOVERNING INCIDENT RESPONSE

Minnesota Department of Agriculture
Agronomy & Plant Protection Division

90 West Plato Boulevard • St. Paul, MN 55107-2094
Telephone: 651/297-1975 • Fax: 651/297-2271

The following Guidance Documents are available from the Agricultural Chemical Incident Response Unit of the Minnesota Department of Agriculture.

General Information for Incidents

Document
ACRRA.001 — Reimbursement of Costs for Agricultural Chemical Incident Cleanups. Agricultural Chemical Response and Reimbursement Account (ACRRA) *[Revised 02/00]*
GD1 — Guidance for Reporting Agricultural Chemical Incidents *[Revised 03/99]*
GD2 — Guidance for Sudden Agricultural Chemical Incident Cleanup ***(Emergency Only)*** *[Revised 03/99]*
GD3 — Seven Steps to a Historical Agricultural Chemical Incident Cleanup *[Revised 03/99]*
GD4 — Disposal of Old Pesticide Containers *[Revised 03/99]*
GD5 — Voluntary Cleanup/Technical Assistance Program - Introduction to Voluntary Cleanup *[Revised 03/99]* VCTAP Application (PDF file)
GD6 — Voluntary Cleanup/Technical Assistance Program - ACRRA Relationship *[Revised 03/99]*
GD7 — Voluntary Cleanup/Technical Assistance Program - Types of Written Assurances *[Revised 03/99]*
GD8 — MDA Incident Response Program Overview *[Revised 03/99]*

Site Investigation and Cleanup Guidelines

Document
GD9 — Remedial Investigation and Work Plan *[Revised 03/99]*
GD10 — Agricultural Chemical Incident Remedial Investigation Report and Corrective Action Plan *[Revised 03/99]*
GD11 — Soil Sampling Guidance *[Revised 03/99]*
GD12 — Ground Water Sampling Guidance *[Revised 03/99]*
GD13 — Proposal to Land Apply Soil from Agricultural Chemical Incidents *[Revised 03/99]*
GD14 — Property Transfer Site Assessments at Agricultural Facilities *[Revised 03/99]*
GD15 — Corrective Action Report *[Revised 03/99]*
GD16 — Immunoassay Guidance *[Revised 03/99]*

GD17 — Bioremediation Treatability Study Fact Sheet *[Revised 03/99]*
GD18 — Pre-Construction Soil Sampling Guidelines *[Revised 03/99]*
GD19 — Soil Cleanup Goals *[Revised 03/99]*
GD20 — Natural Attenuation of Contaminated Soil and Ground Water at Agricultural Chemical Incident Sites [*Revised 03/99*]

Consultants / Laboratories / Landspreaders

Document
GD21 — Selecting an Environmental Consultant *[Revised 03/99]*
GD22 — Environmental Consultant List *[Revised 11/99]*
GD23 — Pre-approved Commercial Laboratories: Fixed Base and Mobile *[Revised 03/99]*
GD24 — Fixed Base Laboratory Quality Assurance/Quality Control Plans *[Revised 03/99]*
GD25 — Mobile Laboratory Quality Assurance/Quality Control Plans *[New 03/99]*
GD26 — Analytical Lists for Pesticide Incident Investigations *[Revised 03/99]*
GD27 — Contract Land Spreader List *[Revised 03/99]*

Last Update: March 3, 2000