Environmental and Public Health Water Laws and the Management and Use of Pesticides and Nutrients by the Agricultural Community

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Agricultural-related activities are increasing being scrutinized by government agencies, private organizations, and the general public as to their affect on public health and the environment. Today, many of the major federal, state, and local government statutes and regulations reference certain agricultural practices, such as pesticide and fertilizer application as potential threats to the environment and public health.

Many of the federal and state environmental and public health statutes and regulations mandate the protection of a surface or ground water drinking water source to the greatest degree possible. Additionally, environmentally sensitive areas are increasing becoming the focus of water quality and quantity protection efforts. In many cases these areas require protection beyond that necessary to protect human health. These laws and regulations protect the drinking water source for 90% of rural Washington residents and enables owners of water supply systems to deliver safe clean drinking water to the public at a reasonable cost. Additionally, many of these same statutes and regulations are viewed as necessary elements for the protection of environmentally sensitive ecosystems and aquatic species.

Current statutes and/or regulations related to pesticide or fertilizer application and administered by the Washington State Department of Agriculture are designed to prevent the contamination of surface and ground water sources. Many state and federal laws and regulations apply directly to pesticides and fertilizers and can significantly affect users of these products.

The major federal and state statutes and regulations that can impact the management and use of agri-chemicals are:

- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA),
- Federal Clean Water Act (CWA) and the State Water Pollution Control Act
- Federal Safe Drinking Water Act (SDWA) and the State drinking water regulations
- Comprehensive Environmental Recovery and Liability Act (CERCLA) and the State Model Toxics Control Act (MoTCA)
- State Ground Water Quality Standards
- State Growth Management Act; and
- State Chemigation and Fertigation rules

This list is not intended to be complete and is likely to be much larger in consideration of various local ordinances.

The Federal Insecticide, Fungicide and Rodenticide Act

The Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) is administered on the federal level by the Environmental Protection Agency and statewide by the Washington Department of Agriculture. The Act requires the control of pesticides for reasonably safe use in agricultural production and the control of pesticides for reduction of unreasonable risks to man and the environment. Amendments to FIFRA have clarified the duties and responsibilities of the EPA. In general, there has been a shift toward greater emphasis on minimizing risks associated with toxicity and environmental degradation, and away from pesticide efficacy issues.

The EPA must classify each pesticide as either "general use," "restricted use," or both. "General use" pesticides may be applied by anyone, but "restricted use" pesticides may only be applied by certified applicators or persons working under the direct supervision of a certified applicator. Because there are only limited data for new chemicals, most pesticides are initially classified as restricted use. Applicators are certified by the Washington State Department of Agriculture the certification program that is approved by the EPA.

Under FIFRA, no one may sell, distribute, or use a pesticide unless it is registered by the EPA. Registration includes approval by the EPA of the pesticide's label, which must give detailed instructions for its safe use. Public health and environmental protection measures are contained with the text of the pesticide label and <u>must</u> be followed to remain in compliance with FIFRA and accompanying state statute and regulation.

In June 1996, the Environmental Protection Agency published "*Pesticides and Ground Water State Management Plan Regulation; Proposed Rule*" (Federal Register Vol. 61, No. 124 – 33260) this rule when adopted will use FIFRA section 3(d)(1)(C)(ii) to require states to create specific management plans to protect vulnerable ground waters from certain pesticides or lose the ability to use those pesticides. When completed the Pesticide Management Plans (PMP's) will be to major tool used to manage the use of pesticides and conduct enforcement activities. In Washington State the PMP will be linked to the existing Ground Water Quality Standards (Chapter 173-200 WAC).

Safe Drinking Water Act

Provisions of the federal Safe Drinking Water Act (Title 42, Chapter 6A, subchapter XII, Part C, Sec 300h-7(a) and Title 42, Chapter 6A, subchapter XII, Part E, Sec. 300j-13(a)) and state drinking water regulations (Chapter 246-290-135 WAC) require operators of Class A water systems in Washington State to establish wellhead or source water protection areas for public drinking water supplies. The purpose of these protection areas are to prevent the contamination of surface and ground water used as a source of drinking water from any land use activity. At a minimum, utility operators must catalog activities

that present a potential to contaminate a surface or ground water source that is used by a public water supply system and determine that system's susceptibility. In addition, this information must be made available to the appropriate state and local agency charged with regulating the utility. While the regulation's focus is on the public water supply system, it also can affect the landowner or farmer. The regulation does provide for third-party lawsuits against the landowner if surface or ground water contamination occurs as a result of misuse.

Land use involving agricultural activies, in many cases, can be considered to be a potential contamination source. Activities such as Confined Animal Feeding Operations (CAFO's), land application of food processing waste water, application of nutrients and pesticides over sensitive areas, poor irrigation practices, and mismanagement of agricultural chemicals are but a few examples of agricultural activities that have environmental and public health consequences.

The federal Underground Injection Control regulation (Title 40, Chapter 1, Part 145) and the Washington State's counterpart regulation (Chapter 173-218 WAC) regulate the use of wells for the disposal of waste fluids. Under these laws a well is considered to be <u>any</u> subsurface wastewater disposal system. This includes drain field, drywells, in some cases drain tiles, as well as "traditional" wells. Since a majority of these wells are shallow in depth and bypass remedial properties of most soils, they can be a major source of ground water contamination. Under both federal and state law and regulation these are considered to be Class V injection wells. Within this class, agricultural disposal wells are specifically noted. It is important to note that any subsurface water distribution system can be considered an agricultural disposal well depending on the amount and type of fluid that is disposed of or injected into it. Intentional disposal need not occur in order to violate federal or state law. For example: The disposal or loss or any fertilizer or pesticide into a well (no backflow prevention during application or direct disposal of product into a dry well) is considered a violation of this regulation as well as Washington's ground water quality standards. Violations of the federal regulation have resulted is sizable penalties against offenders or expensive environmental clean-ups

Applying best practices improves surface water quality

The federal Clean Water Act and the state Water Pollution Control Act (Chapter 90.48 RCW) contain numerous provisions targeting agriculture-related industries. The requirement of states to develop clean-up plans for surface waters that fail to meet water quality standards has begun to affect agriculture-related activities. Runoff from farms or return flows from irrigation canals are identified as sources of chemical and nutrient contamination and a chief contributor to degrading water quality. Voluntary best management practices have been the primary way states have used to try and return surface waters to state water quality standards. In cases where voluntary actions may fail to accomplish water quality goals, restrictions limiting land uses may be an option. In most cases, employing good agricultural practices leads to improved water quality and enhanced profits.

Laws, standards protect ground water quality

In Washington, the protection of ground water quality is covered under Chapter 173-200 WAC, Ground Water Quality Standards for the State of Washington. To learn more about key exemptions to the regulation see Chapters 173-200-010(3)(a) WAC and 173-200-010(3)(b) WAC *(Link to these chapters online)* The ramifications of conducting activities outside these two agricultural exemptions are significant. If ground water contamination occurs from misuse of either pesticides or fertilizers, regulatory authority exists to limit or eliminate the use of these products. Additionally, the landowner and/or operator could come under the same type of regulatory action as any other operator of an industrial or commercial activity who contaminates ground water sources. Alternately, the contaminated area could come under special jurisdiction to improve the water quality.

Take note of hazardous waste management and clean-up laws

Recent court decisions have clarified the level to which agricultural operations are protected from environmental regulatory actions with respect to their use of pesticides and/or fertilizers. Misuse of a pesticide or fertilizer of the kind that causes ground or surface water contamination is not legal and can make the landowner or operator subject to federal and state hazardous waste and clean-up regulations (MoTCA). They could also be subjected to penalties and clean-up expenses associated with remediation.

Growth Management Act may put further limitations on pesticide/fertilizer use

Provisions of Washington State's Growth Management Act require that all counties and many municipalities establish critical area ordinances. These ordinances establish local land use requirements to protect wetlands and aquifer recharge areas. In some cases, agricultural activities may fall within the boundaries designated by local government as critical areas. Depending upon the environmental sensitivity of the area, additional limitations may be placed on the use of pesticides and/or fertilizers over and above legal limits enacted by the state or federal government. The landowner is required to conduct management activities related to the use of pesticides and fertilizers according to the local restrictions.