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Laws Governing Use and Impact of Agricultural Chemicals: Agricultural Chemical Use and Liability for Water Pollution[1]

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SIGNIFICANCE OF WATER POLLUTION TO AGRICULTURE

Recently, protection of both ground water and surface water has received a great deal of attention as knowledge of the scope of contamination has increased.

The United States relies on ground water sources for more than half of its drinking water and for more than a quarter of its total fresh water needs.[1] In 1983, the Environmental Protection Agency estimated that one percent of the nation's ground water supply was already contaminated, and that the percentage of contaminated ground water was rapidly increasing.[2]

Farmers generally rely heavily on ground water for their own consumption, irrigation of crops and watering of livestock. Pollution of a well can endanger the health of the farmer and his family, and subsequent tort liability can put him out of business. Ground water pollution is relevant to farmers because the agricultural use of pesticides and fertilizers is increasingly being cited as a major source of ground water pollution. Thus, a farmer who pollutes his neighbor's well or contributes to the pollution of a community's drinking water supply may be subject to heavy liability.

The misuse of agricultural chemicals can degrade ground water in several ways. Irrigation back-flow where chemicals are mixed with the irrigation water can cause serious ground water pollution. Installation of back-flow prevention equipment is an effective deterrent to this problem. Over-application can cause excess chemicals to leach or percolate into the water table. Careful adherence to the pesticide's label, such as following proper dosage instructions can greatly reduce the likelihood of ground water contamination. However, there have been many instances where pesticides have been applied at the label rate but, because of a combination of chemical properties, soil characteristics, hydrogeology, or management practices, pesticides have leached into ground water. Site-specific factors must be taken into consideration to minimize the potential for ground water contamination.

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Where ground water is interconnected with surface water, runoff and erosion can cause ground water pollution by agricultural chemicals.[3] Because nitrates are highly soluble compounds and can leach into ground water, pollution from fertilizer is an increasing problem, particularly in the Midwest.[4] Careful adherence to local, state, and federal erosion control regulations and recommendations can greatly reduce the chances of surface and ground water pollution as well as preserve soil quality and fertility.

Improper cleaning or disposal of containers, as well as mixing and loading of pesticides in an area where residues or run-off are likely to threaten surface or ground water, are other potential sources of contamination. Some pesticide product labels and some state statutes note the distances from well heads for safe mixing and loading of pesticides. Again, close attention to labeling instructions and state statutes or local ordinances can reduce or eliminate the potential to pollute ground water.

Agricultural chemicals also have high potential for polluting surface water through accidents, erosion, irrigation return flow, and runoff. As with ground water, a farmer can be held liable for surface water pollution resulting from the use of agricultural chemicals. To help avoid surface well pollution, farmers should consider pesticide and soil characteristics and site characteristics, such as hydrogeology and climate. Best Management Practices developed by the states and by the federal government pursuant to the Federal Clean Water Act should be closely followed not only to avoid violating the Act, but also to reduce the chance of tort liability for surface water pollution. Best Management Practices place a heavy emphasis on erosion control, storm and irrigation water management, and Integrated Pest Management Techniques.[5]

The growing attention to ground and surface water is reflected in the attitudes of the courts and state legislatures toward polluters.[6] Violation of water protection laws and regulations increasingly lead to the imposition of harsh legal doctrines, especially strict liability and negligence per se, against polluters. In states where strict liability is unavailable, a plaintiff may still find a cause of action in nuisance, trespass, or negligence. Users of agricultural chemicals are becoming increasingly subject to non-point source pollution regulations, which many states are currently implementing to meet the requirements of the Clean Water Act.[7]

This trend is also bolstered by an increasing number of state statutes with criminal penalties for water pollution. For instance, a 1993 Hawaii statute allows the state to impose a fine for using pesticides in a manner which allows them to reach a drinking water source.[8] Also, a 1994 California law prohibits the knowing discharge or release to a source of drinking water of a chemical known to cause cancer or reproductive toxicity. California's list of chemicals includes many pesticide ingredients.[9]

The remainder of this publication is devoted to legal principles of particular importance because of their growing significance in the litigation of water pollution issues closely tied to agricultural chemicals.

NUISANCE

Traditionally, plaintiffs damaged by water pollution have brought actions under the law of nuisance. Nuisance suits are often easier for plaintiffs to win, since they need not prove that the defendant took any particular action to harm them, only that some offending condition exists because of the defendant, and the offending condition is unreasonable. Actions for private and public nuisance may be distinguished by determining who is harmed by the pollution at issue.

A private nuisance action might arise, for example, where a plaintiff's private well is contaminated by chemicals applied to the land of a neighboring farmer or group of farmers. The plaintiff in this action must prove that the pollution has interfered with the plaintiff's right of enjoyment of his property and must also prove the interference was substantial. In addition, the plaintiff must convince the court that the interference is unreasonable; that is, the harm suffered by the plaintiff outweighs the overall utility to society of the defendant's conduct. In making this final determination, the court will take the nature of the area and the nature of the action into account.

A public nuisance action, on the other hand, might follow if the chemicals contaminated a public water supply. In this event, the plaintiff (often a state or local official), must show the defendant is conducting an activity which constitutes a substantial and unreasonable interference with a right common to the general public rather than an individual right. In determining whether the activity is unreasonable, the court must consider any statute or regulation relating to the activity, whether the activity is, by

nature, continuing, and whether the activity will have a permanent or long-lasting effect.

STRICT LIABILITY

In Branch v. Western Petroleum,[10] the Utah Supreme Court upheld the application of strict liability as grounds for recovery of damages caused by the pollution of ground water with salt water used in drilling operations. The court held that storing salt water brine in ponds where it could contaminate ground water was an "abnormally dangerous activity" and the imposition of strict liability was justified.[11] Courts have also applied strict liability in cases involving seepage of mine wastes and leakage from oil and gasoline pipelines and storage tanks.[12]

JOINT AND SEVERAL LIABILITY

Because water, especially ground water, has many sources, and may be vulnerable to contamination at many points, it may be difficult, if not impossible for a plaintiff to determine the origin of pollutants. Consequently the plaintiff may also have difficulty in determining in what degree each of several defendants is responsible for the harm resulting from these pollutants.[13] If the court applies the principle of joint and several liability, however, each defendant may be held responsible for the entire damage if the plaintiff can show the defendant's activities were a "substantial factor" in the creation of the condition that caused injury to the plaintiff.

The court may impose joint and several liability in two situations: (1) where defendants acted together in the commission of a wrongful act, or (2) where the independent wrongful actions of the group produced a single, indivisible harm.

In pollution action, then, the plaintiff might recover simply by showing that a defendant contributed to the contamination, as illustrated by D & W Jones, Inc. v. Collier, et al..[14] In this case, the defendants had sprayed their crops with a pesticide which had poisoned the plaintiff's fish ponds, killing the fish.[15] The court states the general rule:

> **Where the separate and independent acts of several tortfeasors...combine to produce directly a single injury, each is responsible for the entire result, even though his act alone, without the concurrence of the other tort, would not have caused the injury; and it is not necessary that they be acting together or in concert if their concurring torts occasioned the injury...Each tortfeasor is responsible for the entire injury.[16]**

DAMAGES AVAILABLE TO PLAINTIFFS

Actual Damages

In tort suits, plaintiffs may recover an amount equal to the actual damage they suffered as a result of the defendant's actions. In cases where a single, privately owned water source is permanently contaminated by a single polluter, determining the amount of damages is simply a matter of determining the loss in value of the property as a result of the pollution.

However, this formula may be complicated by a number of variables including situations where the water supply for a great number of people is contaminated, where there are many possible sources for the contamination, or where the plaintiff suffers physical harm as a result of the contamination. In fixing the amount of actual damages, the court will look to such considerations as the nature and degree of the contamination and the resulting harm, the proportional responsibility of each individual defendant, the availability of measures to correct the contamination, and degree to which each defendant acted intentionally or recklessly in creating the harm.

Punitive Damages

Several courts have allowed the recovery of punitive damages against defendants who knowingly caused harmful pollution or whose conduct otherwise showed blatant disregard for the rights of others and the consequences of pollution.[17] In Miller v. Cudahy Company, Inc.,[18] involving extensive pollution of an aquifer, the court imposed an award of over $4 million in actual damages and $10 million in punitive damages. The court gave the defendant the option to either clean up the pollution or pay the punitive damages award.[19] Traditionally, defendants cannot force their insurance companies to pay punitive damages and, therefore, must bear the burden themselves.

Other Relief

The courts may also impose other types of relief where appropriate. The court may issue injunctions, for instance, to prevent a continuing nuisance or pollution.

DEFINITIONS, ABBREVIATIONS AND ACRONYMS

Citation Definitions

Et seq.: and the following
Id: the same; used to indicate a reference previously made.
Infra: within; used to indicate a reference made in a later part of the paper.
Supra: above; used to indicate a reference made in a previous part of the paper.

Definitions

Actual Damages -- The amount awarded to a plaintiff in compensation of the plaintiff's actual and real loss or injury.

Common Law -- It is a body of law that develops and derives through judicial decisions, as distinguished from legislative enactments.

Enjoin -- To require a person, by writ of injunction, to perform, or to abstain or desist from, some act.

Injunctions -- A court order prohibiting someone from doing some specified act or commanding someone to undo some wrong or injury.

Inherently dangerous -- Danger inhering in an instrumentality or condition itself at all times, so as to require special precautions to prevent injury; not danger arising from mere casual or collateral negligence of others with respect to under particular circumstances.

Nominal Damages -- The trifling sum awarded to a plaintiff in an action, where there is no substantial loss or injury to be compensated, but still the law recognizes a technical invasion of his rights or a breach of the defendant's duty.

Punitive Damages -- Damages that are above and beyond that which would compensate the plaintiff for his loss. They are based on the public policy of punishing a defendant who acted willfully, maliciously, or fraudulently.

Statutory Law -- The body of law created by acts of the legislature in contrast to constitutional and common law.

Definitions are taken from *Black's Law Dictionary* 1990 edition.

Abbreviations

C.F.R.: Code of Federal Regulations
U.S.C.: United States Code

Acronym List

BMP - Best Management Practices
CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act
CZMA - Coastal Zone Management Act
DOT - Department of Transportation
EPA - Environmental Protection Agency
ESA - Endangered Species Act
FAA - Federal Aviation Administration
FACT - Food, Agriculture, Conservation, and Trade Act
FDA - Food and Drug Administration
FFDCA - Federal Food, Drug, and Cosmetic Act
FIFRA - Federal Insecticide, Fungicide, and Rodenticide Act
IPM - Integrated Pest Management
MCL - Maximum Contaminant Level
MCLG - Maximum Contaminant Level Goals
NPDES - National Pollution Discharge Elimination System
OSHA - Occupational Safety and Health Act
PPE - Personal Protective Equipment
RCRA - Resource Conservation and Recovery Act
RCWP - Rural Clean Water Program
REI - Restricted-Entry Interval
SARA - Superfund Amendments and Reauthorization Act
TPQ - Threshold Planning Quantity
USDA - United States Department of Agriculture
WPS - Worker Protection Standard

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1. Timothy R. Henderson et al., Environmental Law Institute, Ground water: Strategies for State Action 1 (1985).

2. Id. at 17.

3. Robert L. Glickman and George C. Coggins, Ground Water Pollution I: The Problem and the Law, 35 Kan. L. Rev. 75, 82 (1986).

4. The U.S. Geological Service found that 20% of more than a thousand wells tested in Kansas had nitrate/nitrogen concentrations in excess of EPA criteria for drinking water. Id. at 88.

5. See Michael T. Olexa, Agricultural Chemicals and Water Pollution, notes 9-15 and accompanying text.

6. 1 William H. Rogers, Jr., Environmental Law: Air and Water at 43-7.

7. See supra note 5.

8. Haw. Rev. Stat. §149A-32.5 (1993).

9. Cal. Health & Safety Code §25249.5 (1994).

10. 657 P.2d 267 (Utah 1982).

11. Id. at 274.

12. See generally, Peter N. Davis, Ground water Pollution: Case Law Theories for Relief, 39 Mo. L. Rev. 117 (1974).

13. Often the source of contamination is obvious. For example, if an oil company injects salt brine into an exploratory oil well in order to bring oil to the surface, and the farmer who lives downhill from the company's salt water holding ponds discovers that his well has been contaminated by salt water, the easy assumption is that the oil company is responsible for the pollution, and this is easily proven. See Branch v Western Petroleum, supra note 10, and Cities Service Oil Company v. Merritt, 332 P.2d 677 (Okla. 1958), reh'g denied, Dec. 2, 1958. Most reported lawsuits for ground water pollution are of this type, where the source of pollution is clear. But see Magnolia Petroleum Co. v. Williams, 76 So. 2d 365 (Miss. 1954), where several possible polluters were located in the area and the court ruled that causation was not proven with sufficient definiteness.

14. 372 So. 2d 288 (Miss. 1979), reh'g denied, July 28, 1979.

15. Id. at 288-89.

16. Id. at 292. See also 86 C.J.S. Torts §35, adopted by the court. A tortfeasor is a wrong-doer; an individual or business that commits or is guilty of a tort. Black's Law Dictionary 1489 (6th ed. 1990).

17. See Cities Service Oil Company v. Merritt, supra note 13, and Branch v. Western Petroleum Co., supra notes 10, 13.

18. 592 F. Supp. 976 (D. Kan. 1984).

19. Id. at 1008-9.