

1973

Groundwater Pollution in the Western States - Private Remedies and Federal and State Legislation

Sunny Jeanne Nixon

Follow this and additional works at: https://scholarship.law.uwyo.edu/land_water

Recommended Citation

Nixon, Sunny Jeanne (1973) "Groundwater Pollution in the Western States - Private Remedies and Federal and State Legislation," *Land & Water Law Review*. Vol. 8 : Iss. 2 , pp. 537 - 564.
Available at: https://scholarship.law.uwyo.edu/land_water/vol8/iss2/5

This Comment is brought to you for free and open access by Law Archive of Wyoming Scholarship. It has been accepted for inclusion in Land & Water Law Review by an authorized editor of Law Archive of Wyoming Scholarship.

GROUNDWATER POLLUTION IN THE WESTERN STATES — PRIVATE REMEDIES AND FEDERAL AND STATE LEGISLATION*

INTRODUCTION

Most western states require permits from the state to acquire legal use of groundwater.¹ The state's right to issue permits and so regulate the use of water stems from its ownership of the water in which various appropriators gain a right of use.² Most permits are issued on the basis that a beneficial use will be made of the groundwater.³ Pollution⁴ however does not meet the Restatement of Torts criteria of a use.⁵ The Restatement treatment deals primarily with pollution of riparian surface rights but also does not recognize groundwater pollution as a use.⁶ It follows there is no right to pollute and pollution is considered a tort.⁷ The theories in tort upon which injured groundwater users have proceeded generally have been nuisance, negligence or trespass.⁸ Private

*This comment was financed by the Water Resources Research Institute of the University of Wyoming.

1. Moses & Vranesh, *Colorado's New Ground Water Laws*, 38 U. OF COLO. L. REV. 295, 297 (Spring 1966).
2. CLARK, *WATERS AND WATER RIGHTS* § 22.6, at 118 (1967).
3. *Id.* at 86. Beneficial use is a term which is used in the western United States to mean a use which is reasonable, useful and beneficial to the appropriator and is consistent with the public's interest in the best utilization of water supplies. The Restatement deals primarily with riparian rights in contrast with appropriation rights and thus the term "use" is used instead of "beneficial use." They mean substantially the same thing, however.
4. Definitions of pollution vary. Some are a broad categorization of anything which impregnates with refuse or noxious substances. RESTATEMENT OF TORTS § 832 (1939). Others are much more detailed and sophisticated such as Utah's definition of pollution.

Pollution means such contamination, or other alteration of the physical, chemical or biological properties, of any waters of the state, or such discharge of any liquid gaseous or solid substance into any waters of the state as will create a nuisance or render such waters harmful or detrimental or injurious to public health, safety or welfare, or to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses, or to livestock, wild animals, birds, fish or other aquatic life.

- UTAH CODE ANN. § 73-14-2(a) (1953).
5. RESTATEMENT (SECOND) OF TORTS § 849 (Tent. Draft No. 17, 1971). Specifically comment *e* says, "[N]or do landowners have rights to pollute surface and ground waters occurring on or within their lands."
6. RESTATEMENT (SECOND) OF TORTS § 849 (Tent. Draft No. 17, 1971).
7. See RESTATEMENT (SECOND) OF TORTS § 849 comment *e* at 64 (Tent. Draft No. 17, 1971).
8. Annot., 38 ALR2d 1265, 1268 (1954). Likewise RESTATEMENT (SECOND) OF TORTS § 849, comments *b*, *c*, and *d* at 69 (Tent. Draft No. 17, 1971) lists the theories of negligence, nuisance or trespass in giving a remedy to an injured plaintiff.

Copyright© 1973 by the University of Wyoming

remedies sought have been either for damages to compensate for polluted waters, for an injunction against the pollution or both.⁹

Recent state and federal concern about pollution has resulted in legislation which seeks to control and abate pollution. Federal Water Pollution Acts were enacted in 1948 and 1956.¹⁰ The Water Quality Act of 1965 amended the 1956 Act.¹¹ The 1965 Act required states to promulgate water quality standards¹² and most Western States have enacted state Water Quality Acts in compliance to this directive.¹³ The most recent Federal legislation, the Federal Water Pollution Control Act Amendments of 1972, supercedes, elaborates and extends previous legislation.¹⁴ Since it is more comprehensive, it deals more specifically with groundwater pollution.

It is to this regulative legislation as well as to preventative and compensatory private action that this comment is directed.

PRIVATE REMEDIES

"Massive legislation, seeking to cope with complicated problems, cannot help but leave gaps to be filled by the courts . . . [so] private remedies must still be utilized in the face of ineffective administrative enforcement".¹⁵ Probably more difficulty is encountered in styling the pertinent cause of action than in demanding a particular remedy. In approaching the study of groundwater pollution the intricacies might be more easily gained if the reader considered the sources

9. Lee, *The Mining Industries As a Water User and Water Polluter—Legal Aspects*, 16 ROCKY MT. MIN. L. INST. 107, 122 (1971).
10. Act of June 30, 1948, Pub. L. No. 80-845, 62 Stat. 1155, *superceded by Act of July 9, 1956*, Pub. L. No. 84-660, 70 Stat. 498 (codified as amended at 30 U.S.C. §§ 1151-60 (1970)).
11. 33 U.S.C. §§ 1151-53, 1155-60, 1171-72 (1970).
12. 33 U.S.C. § 1160(c) (1970).
13. ARIZ. REV. STAT. §§ 36-1851 to -1869 (Supp. 1972); CAL. WATER CODE §§ 13020 to 13983 (1971); COLO. REV. STAT. ANN. §§ 66-28-1 to -27 (Supp. 1967); IDAHO CODE §§ 39-101 to -136 (Supp. 1972); MONT. REV. CODE ANN. §§ 69-4801 to -4819 (1947); N.M. STAT. ANN. §§ 75-39-1 to -12 (1953); NEV. REV. STAT. §§ 445.130-385 (1967); OKLA. STAT. tit. 82, § 901-939 (1970); ORE. REV. STAT. §§ 449.001-175 (1971); UTAH CODE ANN. §§ 73-14-1 to -13 (1953); WASH. REV. CODE ANN. §§ 90.48.010-900 (1962).
14. Pub. L. No. 92-500, 86 Stat. 816 (1972).
15. Comment, *Private Remedies for Water Pollution*, 70 COLUM. L. REV. 734, 734-35 (1970).

of pollution. Some of these sources are: mines, oil and gas wells and pipes, cemeteries, sewage, and surface water seepage.¹⁶ However, the reader's legal understanding will be better furthered if one approaches the subject by considering the three basic theories upon which a groundwater user can style his suit against the polluter. These primarily are: nuisance, negligence, and trespass.¹⁷ The plaintiff's choice will generally be determined by the circumstances and elements present to form his cause of action although, at times, if the elements are present for both, plaintiff may arbitrarily choose his cause of action.

A. Private Nuisance

To form a cause of action under private nuisance the plaintiff must first have a use or right which is interfered with by a non-trespassory invasion.¹⁸ Generally if a groundwater user has obtained a permit, he will have established a use or right which meets the Restatement criteria.¹⁹ One must then determine to what extent the particular use is protected.²⁰ Next the invasion must be unreasonable, which is determined by whether the gravity of the harm to the use outweighs the utility of the actor's conduct.²¹ Thus the plaintiff must show that the defendant is unreasonably polluting the water to the extent that it is interfering with the plaintiff's enjoyment of a use.²²

16. Annot., 38 A.L.R.2d 1265, 1290-1306 (1954).

17. *Supra* note 8.

18. RESTATEMENT OF TORTS § 822 (1934):

The actor is liable in an action for damages for a non-trespassory invasion of another's interest in the private use and enjoyment of land if,

- (a) the other has property rights and privileges in respect to the use or enjoyment interfered with; and
- (b) the invasion is substantial; and
- (c) the actor's conduct is a legal cause of the invasion; and
- (d) the invasion is either
 - (i) intentional and unreasonable; or
 - (ii) unintentional and otherwise actionable under the rules governing liability for negligent, reckless or ultrahazardous conduct.

For a discussion of nuisance see Comment, *The Availability and Limitations of The Private Nuisance Doctrine In Wyoming*, 7 LAND & WATER L. REV. 545 (1972).

19. CLARK, WATERS AND WATER RIGHTS § 53.1, at 345 (1967).

20. Comment, *The Availability and Limitations of The Private Nuisance Doctrine In Wyoming*, 7 LAND & WATER L. REV. 549 (1972).

21. *Id.*

22. *Id.*

Several groundwater pollution cases have based their decisions on the Restatement criteria. In a recent Montana case, *Nelson v. C & C Plywood Corp.*,²³ it was decided that the defendant plywood company had intentionally created a private nuisance when the defendant was notified by a well user that his well had developed an obnoxious taste three days after the defendant's operation began and the defendant refused to abate the pollution.²⁴ The defendant's continued pollution after it had been notified of the polluting effect was held to satisfy the "intentional" requirement of the Restatement.²⁵ In addition, unreasonableness was shown since:

" 'When a person knows that his conduct will interfere with another's use or enjoyment of land, and it would be practicable for him to prevent or avoid part or all of the interference and still achieve his purpose, his conduct lacks utility if he fails to take the necessary measures to avoid it.' * * * " ²⁶

In light of the polluter's admission that he could have prevented the pollution by installing corrugated iron sheet underneath bins to carry the run-off downhill, his conduct can be said to be one in which the gravity of the harm outweighed the utility of the actor's conduct and therefore was unreasonable.²⁷

The plaintiff successfully contended that he need not prove negligence if he substantially proved nuisance.²⁸ Yet if plaintiff were to have proceeded under the second method of proving a nuisance under the Restatement, negligence would have been a proper element of proof.²⁹ The invasion under the second method instead of being intentional may be unintentional and otherwise actionable under the rules governing liability for negligent, reckless or ultrahazardous conduct. A negligent interference with the use and enjoyment of land is private nuisance in respect to the interest invaded, and negligence in respect to the type of conduct which causes the

23. 154 Mont. 414, 465 P.2d 314 (1970).

24. *Id.* at 315.

25. *Id.* at 322.

26. *Id.* at 322 (quoting from RESTATEMENT OF TORTS § 826, comment *g* at 255 (1939)).

27. RESTATEMENT OF TORTS § 826 (1939).

28. *Supra* note 23, at 321.

29. RESTATEMENT OF TORTS, *supra* note 18, at § 822 (d) (ii).

invasion.³⁰ That is, negligence may be a part of the nuisance cause of action and recovery if the invasion is unintentional.

An Iowa case, *Iveson v. Vint*,³¹ deals with the nuisance and negligence dichotomy. The defendant had dumped some crystallized molasses which percolated into the subterranean waters beneath the plaintiff's premises, polluted and contaminated the plaintiff's well and rendered its waters unfit for use.³² The defendant asserted the common custom defense, which is usually asserted in negligence actions. He contended that the dumping of spoiled molasses into the ditch was a lawful, reasonable and customary use of a plant and premises by a manufacturer of animal feeds and "cannot constitute a nuisance as a matter of law."³³ The court noted that the defendant's actions were negligent but stated that the action was in nuisance and not predicated upon negligence and thus could not be decided upon that theory. However, the court did not totally discount the presence of negligence since it quoted from another Iowa opinion, *Bowman v. Humphrey*,³⁴ involving negligence. The court in *Bowman* noted that a nuisance may be created by a positive wrongful act, or by the neglect of some duty of prevention:

The negligence, if any, may usually be proved not as being itself essential to the right of recovery, but for the purpose of fixing the responsibility for the existence of the condition which constitutes the cause of complaint.³⁵

Fixing the responsibility upon the polluter is more difficult in groundwater cases than in other nuisance actions, since tracing the pollution underground in percolating waters sometimes proves difficult, although modern devices have made tracing easier.³⁶ The difficulty of establishing the causal connection between the polluter and the resulting pollution is a problem in both nuisance and negligence cases since mere harm to a use is not sufficient to render damages.

30. RESTATEMENT (SECOND) OF TORTS § 822, comment *d* at 25 (Tent. Draft No. 17, 1971).

31. 243 Iowa 949, 54 N.W.2d 494 (1952).

32. *Id.* at 495.

33. *Id.*

34. 132 Iowa 234, 109 N.W. 714 (1906).

35. *Id.* at 715.

36. *Nelson v. C & C Plywood Corp.*, *supra* note 23, at 321.

Somebody in particular must be liable in damages to compensate the plaintiff or somebody must be forced to abate the pollution.

Establishing the connection is a question of fact, which different courts sometimes decide with little reason for a difference. In *United Fuel Gas Co. v. Sawyers*,³⁷ the court was hesitant about finding a causal connection. The plaintiff had drilled a domestic well 69 feet deep and into only one foot of rocks where a supply of good water was found. He stopped drilling there since his neighbors, who had gone further, had encountered sulphur water. The plaintiff continued to get good water for ten years until the defendants drilled a gas well 450 feet away. After drilling operations had continued for three days, the plaintiff's well began to be salty and sulphurous.³⁸ The court noted that it was doubtful that a causal connection could be made since the only evidence was the coincidence that water became bad when the nearby gas well reached the same depth or perhaps a few feet deeper and the circumstance that the water in wells a few feet deeper than the plaintiff's well was sulphurous or salty.³⁹ Apparently the almost simultaneous coincidence between the salty waters in the plaintiff's well and the drilling of the defendant's gas well was not sufficient to form a causal connection. However, the court's holding of no liability for pollution was based not on the lack of causal connection but on the reasonableness of the use. The gas well was drilled by proper methods and nearby wells were contaminated like plaintiff's before drilling began.

Although the *Sawyers* case has been discussed in relation to the causal connection problem, it raises the "unreasonableness" element of a nuisance action discussed earlier. The *Sawyers* case differs from the *Nelson* case. There the defendants were notified of pollution so their continuance of the pollution became intentional and unreasonable. In *Sawyers* the defendants were notified also but the court found that their use was reasonable in spite of the pollution.⁴⁰ The Re-

37. 259 S.W.2d 466 (Ky. 1953).

38. *Id.* at 467.

39. *Id.*

40. *Id.*

statement takes the same position that the *Sawyers* court took when it notes that many invasions can be justified as reasonable although the actor knows that they are resulting or are substantially certain to result from his conduct.⁴¹ Probably the best way to reconcile these diverse holdings is through a comment of the Restatement to which the *Nelson* court referred.⁴² If the polluter knows of the harm and continues when he could reduce the harm by exercising more care without substantially diminishing the value of his enterprise, his conduct is unreasonable.⁴³ But in cases where his use was carried on with the utmost care, his use is impliedly reasonable. The court in *Sawyers* found the use was carried on with the required care.⁴⁴ In *Nelson*, however, more care could have been exercised and was demanded.⁴⁵ Thus, although both cases involved intentional pollution since in both the defendant was notified of the polluting effect, one of the invasions was reasonable while the other was not and was therefore a nuisance.

In contrast to the difficult time the court in *Sawyers* had linking the pollution with the polluter, the court in *Klassen v. Cenral Kansas Cooperative Creamery Association*,⁴⁶ found the task comparatively easy. It noted that there need not be even a chemical analysis since the well water had the same appearance as a polluted stream which was 200 feet away.⁴⁷ The plaintiff here, however, offered proof that when the water appeared polluted, he lost hogs and chickens, but when he hauled water, he lost none.⁴⁸ The court held that this was sufficient proof of a causal connection between the pollution and the polluter.⁴⁹

The plaintiff's success in establishing a causal connection between pollution and the polluter depends upon the degree of proof a court requires. Some courts will require a specific chemical tracing while others may just require a change in

41. RESTATEMENT (SECOND) OF TORTS § 826, comment b at 33-34 (Tent. Draft No. 17, 1971).

42. RESTATEMENT OF TORTS § 828, comment g at 255-56 (1939). See quote *supra* p. 540.

43. *Id.*

44. United Fuel Gas Co. v. *Sawyers*, *supra* note 39, at 627.

45. *Nelson v. C & C Plywood Corp.*, *supra* note 23, at 322.

46. 160 Kan. 697, 165 P.2d 601 (1946).

47. *Id.* at 608.

48. *Id.* at 607-08.

49. *Id.* at 608.

appearance coupled with the knowledge that a possible source of pollution is nearby. Regardless of the difficulty in proving the causal connection, it is one element of a nuisance or negligence action which must be shown.

B. Public Nuisance

According to the Restatement a public nuisance is an unreasonable interference with a right common to the general public.⁵⁰ The factors which, may determine unreasonableness under this definition, are that the conduct interferes with the public health or safety and that the detrimental effect is continuing or permanent or that the conduct is proscribed by a statute, ordinance or administrative regulation.⁵¹ In the absence of these factors, the unreasonableness of the invasion may be established by the same criteria used for private nuisance.⁵²

In the groundwater context a public nuisance could occur when a city's water supply is infiltrated.⁵³ In this context the entire community's health and safety would be endangered. There may be a criminal statute which prohibits the pollution and recovery of damages for the public nuisance may be left to appointed representatives.⁵⁴

In addition, the public nuisance may have some special significance to the private individual. A public nuisance is actionable by an individual when he has suffered or is suffering particular harm different in kind from that suffered by other members of the public.⁵⁵ An example of public nuisance in the groundwater context is found in *Anstee v. Monroe Light & Fuel Co.*⁵⁶ in which the plaintiff met the "particular harm different in kind criteria." A large quantity of waste from a gas plant had been deposited in a stream, which flowed through the plaintiff's property and collected on his land. It then seeped through the ground and polluted the plaintiff's well.⁵⁷

50. RESTATEMENT (SECOND) OF TORTS § 821B (Tent. Draft No. 17, 1971).

51. *Id.*

52. *Id.* § 821B, comment *e* at 6-8.

53. *Id.* § 821B, comment *g* at 8-9.

54. PROSSER, TORTS § 89, at 586 (3d ed. 1964).

55. Comment, *The Availability and Limitations of the Private Nuisance Doctrine in Wyoming*, *supra* note 21, at 554.

56. 171 Wis. 291, 177 N.W. 26 (1920).

57. *Id.*

Because the polluted streams affected the plaintiff's land and underground water, the court found that he and some adjoining landowners stood in a different relationship to the nuisance than the rest of the public.⁵⁸ The plaintiff was awarded damages on the basis of a public nuisance. The court reasoned that the plaintiff need not show that he alone was affected to recover. Rather it was sufficient that the plaintiff belonged to a class whose damages differed not only in degree but also in kind from the rest of the public.⁵⁹

Thus a plaintiff, who meets the particular "in kind" criteria, may frame his cause of action in public or in private nuisance since there is a damage to plaintiff's private use. He may proceed upon either theory or both, although the proof of special damage required under public nuisance may be just an added burden.⁶⁰

C. Negligence

Instead of a nuisance action the groundwater user may frame his cause of action in negligence. In a Texas case, *Brown v. Lundell*,⁶¹ a lessee was held to have negligently caused groundwater pollution when he disposed salt water produced from an oil well in an earthen pit. The water then seeped into the lessor's water supply.⁶² The lessee asserted the defense that he had disposed of the salt in the custom of the field and felt the lessor should prove the custom was negligent. However, the court held that the disposal was negligent since the lessee admitted that, had he thought seriously about the possibility of pollution, he would have devised another system; that he should have realized some of the salt would have seeped; that he knew no salt deposits had ever been removed from a pit; and that there was evidence of pollution from other pits.⁶³ A vigorous dissent was entered by two members of the court on the basis the lessor had not met

58. *Id.*

59. *Id.*

60. PROSSER, TORTS § 89, at 606 (3d ed. 1964).

61. 162 Tex. 83, 344 S.W.2d 863 (1961). For a case not finding negligence on its facts see *Stewart v. Smith*, 68 Ariz. 91, 200 P.2d 353 (1948). For additional cases on negligence in groundwater pollution see annot., 38 A.L.R.2d 1265 (1954).

62. *Brown v. Lundell*, 162 Tex. 83, 344 S.W.2d 863, 864-65 (1971).

63. *Id.* at 870.

its burden of proof that the lessees were using more of lessor's rights than were reasonably necessary for lease operations.⁶⁴ Also the dissent argued that neither party had foreseen the water pollution. Thus the lessee was not guilty of negligence.⁶⁵

According to a general definition of negligence there must exist a duty requiring the actor to conform to a certain standard of conduct for the protection of others against unreasonable risks; a failure to conform to the standard; a reasonably close causal connection between the conduct and the injury; and actual loss or damage resulting to the interests of another.⁶⁶

In the groundwater context, as illustrated in the *Brown* case, there must exist a duty not to pollute if it can be reasonably avoided; a causal connection between the pollution and the alleged harmful conduct; and some loss to the groundwater user.

Very few groundwater cases deal with trespass as a cause of action for pollution. However, it is quite conceivable that, if someone entered upon a water user's land and dumped a substance on the ground which seeped into the water and polluted it, his actions would satisfy the elements of trespass.

In summary, whether a groundwater user frames his cause of action in negligence or nuisance will depend primarily upon the circumstances. Thus it is not proper to say that one theory is better. Appropriateness is the correct criteria for establishing value.

D. Remedies

The most frequently used judicial remedies available to protect the private rights of the groundwater user are damages and injunctions.⁶⁷ The plaintiff might treat the nuisance as a temporary nuisance and seek damages to the time of trial and at the same time ask for an injunction.⁶⁸ Or the plaintiff might treat the pollution as permanent and sue for past and

64. *Id.* at 872.

65. *Id.*

66. PROSSER, *TORTS* § 30, at 143 (4th ed. 1971).

67. Lee, *supra* note 9, at 122.

68. *Id.*

prospective damages.⁶⁹ Because it is not always clear whether the nuisance is temporary and permanent, the plaintiff should probably ask for temporary damages with an injunction and permanent damages.⁷⁰

As in surface water cases⁷¹ the general rule in groundwater pollution cases can be stated that any decrease in the market value of property because of permanent injury due to groundwater pollution is measured by the difference in fair market value before and after the pollution. However, if the injury is only temporary, the measure of damages is the depreciation in the rental value of the property.⁷² An example of the measure of damages is found in *Haveman v. Beulow*⁷³ where the court added the cost of hauling water to the damages of decrease in the market value of the property.⁷⁴ The court also ordered the defendant to abate the nuisance by removing all deposit from the swamp, which had polluted the plaintiff's wells.⁷⁵

However, another court in *Rush v. Phillips Petroleum Co.*⁷⁶ held that the cost for hauling the water was not justifiable in addition to the decrease in the rental value but was an allowance of double recovery.⁷⁷ The plaintiff could not recover for the damage to his leasehold estate and in addition for the expense of supplying it with substitute water.⁷⁸

Arguably, the *Rush* case is correct since the decrease in value should include an amount for drilling a new well and for supplying water in the interim. However, a court could reasonably find the cost of hauling water as an added inconvenience.

The inconvenience of hauling water was discussed in *Monroe "66" Oil Co. v. Hightower*.⁷⁹ Factually the case involved a cafe owner whose well was contaminated by escaping

69. *Id.*

70. *Id.*

71. Knodell, *Liability, For Pollution of Surface and Underground Waters*, ROCKY MTN. MINERAL L. INST. 33, 83 (1967).

72. *Id.* at 83-84.

73. 217 P.2d 313, 317 (Wash. 1950).

74. *Id.* at 317.

75. *Id.* at 317.

76. 163 Kan. 11, 180 P.2d 270 (1947).

77. *Id.* at 278.

78. *Id.*

79. 180 So. 2d 8 (La. 1965).

gas from a faulty hookup from storage tanks to pumps. The case arose in an unusual way since the plaintiff, the oil company, sued the defendant, a cafe owner, for gas and oil sold and delivered to the defendant. The defendant ultimately recovered for damages caused by plaintiff's negligence in installing the tanks and connecting them with the pumps.⁸⁰ The court allowed damages to the cafe owner for the cost of making a new well and for the cost of hauling water.⁸¹ The court stated that it did not give damages for the loss of gasoline and the loss of profit to the cafe simply because the records did not adequately substantiate a loss.⁸² The court indicated there would be no limit to the damages allowed if they were substantiated.

From an examination of the cases, prediction of the damages a court will award is difficult. However, one thing should be clear to groundwater users: they should plead as much supportable damage as possible. The court may or may not choose to reduce it. Another point is clear upon an examination of a recent Texas case, *Beatty v. City of Abilene*.⁸³ This point is that allegation of speculative damages which depend on a contingency in the future is not sufficient for damages or for an injunction. Damages can be claimed only when they occur.⁸⁴

Plaintiffs must of course be careful to bring their action within the applicable statute of limitations. The pertinent question, however, is when does the statute begin to run in nuisance actions? For a permanent nuisance the statute begins to run when the plaintiff has a cause of action for permanent damages and cannot recover temporary damages. That time occurs when an injunction will not issue to prevent the defendant's continuing pollution. Furthermore, the harm must have fully matured so that damages can be accurately ascertained.⁸⁵ For temporary damages the statute begins to run from the date of the particular harm.⁸⁶ However, this

80. *Id.* at 9.

81. *Id.* at 10.

82. *Id.* at 11.

83. 458 S.W. 496 (Tex. 1970).

84. *Id.* at 493.

85. Lee, *supra* note 9, at 123.

86. *Id.*

date may be the date when the water is first polluted or it may be the date when the plaintiff first discovers the pollution.⁸⁷ The courts have not agreed on the date of the particular harm, so this may be another variable in a plaintiff's cause of action.

E. Defenses

Groundwater polluters may raise certain defenses which may be stumbling blocks for plaintiffs. Certain of them should be a part of the plaintiff's prima facie case but they may also be raised as affirmative defenses by the defendant.

In addition to the statute of limitations most of the customary defenses were raised in *Brown v. Lundell*.⁸⁸ One defense was that consent to pollution bars recovery. The defendant claimed that the plaintiff had authorized and thus consented to the very act for which they were trying to recover.⁸⁹ Both the plaintiff-lessor and defendant-lessee knew that the earthen pits were to be located on the leased land and that seepage would probably occur.⁹⁰

The defendant also may allege that the plaintiff has failed to establish a causal connection between the polluter and the pollution.⁹¹ As noted earlier this defense is often effective.

Another defense raised is contributory fault of the plaintiff in adding to his injury.⁹² However, courts have been reluctant to relieve polluters from responsibility for damage on the basis of the user's contributory fault.⁹³ Thus plaintiff cannot recover for his affirmative acts to the extent they contribute to his injury.⁹⁴

In a negligence action the defendant might also raise the defense that his actions were of the common custom and the plaintiff must prove the custom negligent.⁹⁵

87. Knodell, *supra* note 71, at 74.

88. *Supra* note 62.

89. *Id.* at 875.

90. *Id.*

91. Knodell, *supra* note 71, at 63.

92. *Id.* at 75.

93. *Id.* at 75.

94. *Id.* at 76.

95. *Brown v. Lundell*, *supra* note 61, at 876.

In the face of these defenses a plaintiff should probably attempt to ask for both damages and an injunction under his nuisance or negligence cause of action. Some courts have allowed both remedies⁹⁶ while some courts have refused to grant an injunction while an adequate remedy at law is present.⁹⁷ As always plaintiff's success is governed by his degree of proof. However, as the cases indicate, the court's attitude toward polluters may also affect plaintiff's success.

FEDERAL LEGISLATION

One way of approaching the impact of federal and state legislation on the subject of groundwater pollution is to consider the effect the legislation will have on typical situations posed by cases in the first section. That is, what procedure must a plaintiff follow under state and federal legislation to secure damages from a pollutor, who intentionally or unintentionally and recklessly has caused groundwater pollution? An answer must obviously be deferred until the legislation has been examined.

A. History

The first major Federal legislation which was passed for the express purpose of water pollution control and abatement was the Federal Water Pollution Control Act of 1948.⁹⁸ This Act expired on June 30, 1956. The Federal Water Pollution Control Act of 1956 superceded the 1948 Act and became permanent law on July 9, 1956.⁹⁹ The 1956 Act was amended in 1965 by the Water Quality Act of 1965.¹⁰⁰ Added legislation was the Clean Water Restoration Act of 1966.¹⁰¹ Although the Federal Water Pollution Control Act Amendments of 1972¹⁰² has treated water pollution control and abatement in more detail and has superceded the 1965 Act in many respects the 1965 Act is still pertinent since it is the basis for water quality standards which states were to have promulgated

96. *Haveman v. Beulow*, *supra* note 73, at 317.

97. *Beaty v. City of Abilene*, *supra* note 83, at 498.

98. Act of June 30, 1948, Pub. L. No. 80-845, 62 Stat. 1155.

99. Act of July 9, 1956, Pub. L. No. 84-660, 70 Stat. 498 *as amended*, 33 U.S.C. §§ 1151-60 (1970).

100. Act of Oct. 2, 1966, Pub. L. No. 89-234 (codified as amended at 33 U.S.C. §§ 1151-53, 1155-60, 1171-72 (1970)).

101. Act of Nov. 3, 1966, Pub. L. No. 89-753 (codified at 33 U.S.C. §§ 1153-58, 1160, 1173, 1175, 431-37 (1970)).

102. Pub. L. No. 92-500, 86 Stat. 816 (1972).

before June 30, 1967.¹⁰³ The Amendments of 1972 still accept these standards as effective if they are consistent with the applicable requirements of the Amendments.¹⁰⁴

Whether or not the Water Quality Act of 1965 applies to groundwaters specifically is questionable. It is necessary to determine its application in order to discern whether the water quality standards must include groundwater standards. The language in the Act states "the pollution of interstate or navigable waters" shall be subject to abatement.¹⁰⁵ Certainly groundwaters that are interstate will be included in the "interstate" language. Interstate groundwater may include interstate groundwater basins, interstate underground streams or some percolating water which may flow across the state lines. However, much of the groundwater must necessarily be intrastate. To this water the Water Quality Act of 1965 may not apply. However, perhaps intrastate groundwater may be covered by parenthetical language which arguably modifies "navigable waters." The applicable section states:

(a) The pollution of interstate or navigable waters in or adjacent to any State or States (whether the matter causing or contributing to such pollution is discharged directly into such waters or reaches such waters after discharge into a tributary of such waters), which endangers the health or welfare of any persons, shall be subject to abatement as provided in this chapter.¹⁰⁶

Possibly one could argue that since a tributary to navigable water may be subject to federal regulation because it affects navigable waters, groundwater, which affects navigable waters, may also be subject to federal regulation.¹⁰⁷ However, the statutory language may not speak to the above possibility. Rather it may contemplate the situation where the water in which the pollution is ultimately found is navigable. Thus, perhaps the only term under which groundwater may fit and to which the Water Quality Act of 1965 may apply is "interstate."

103. 33 U.S.C. § 1160(c) (1970).

104. Pub. L. No. 92-500 § 303, 86 Stat. 816 (1972).

105. 33 U.S.C. § 1160(a) (1970).

106. *Id.*

107. See *U.S. v. Appalachian Electric Power Co.*, 311 U.S. 377, 426 (1940).

According to legislative history the term "interstate" was not even included until it was entered by an amendment on the floor of the Senate.¹⁰⁸ The rationale for its entry was to insure the fullest application of federal jurisdiction, which would derive from the interstate commerce clause.¹⁰⁹ Although the apparent legislative rationale was not to include other waters besides navigable waters, the language, "interstate," on its face can still arguably be said to include groundwater.

The Water Quality Act of 1965 was to be supervised by the Secretary of the Interior.¹¹⁰ However, the 1972 Amendments supercede this provision and place the administration under the Environmental Protection Agency (EPA).¹¹¹ The significance of this change may mean that the Act may be more rigorously enforced since the EPA is a newer agency specially entrusted with protecting the environment.¹¹²

Another section of the Water Quality Act of 1965¹¹³ which is substantially reproduced in the 1972 Amendments provides for the development of programs for eliminating or reducing the pollution of navigable and ground waters and tributaries and improving the sanitary conditions of surface and underground waters.¹¹⁴ Since this new provision specifically incorporates groundwater, perhaps the question of whether groundwaters are included in interstate or navigable waters is moot.

Probably the most important section for the groundwater concerns is the section which establishes the authority for the water quality criteria for interstate waters.¹¹⁵ These water standards are acceptable under the 1972 Amendments if they meet the requirements of the Amendments.¹¹⁶ If the standards are not met there is provision for change.¹¹⁷ There

108. Edelman, *Federal Air and Water Control: The Application of the Commerce Power to Abate Interstate and Intrastate Pollution*, 33 GEO. WASH. L. REV. 1067, 1073 (1964).

109. *Id.*

110. 33 U.S.C. § 1152 (1970).

111. Pub. L. No. 92-500 § 101(d), 86 Stat. 816 (1972).

112. 42 U.S.C. § 4321, note, Reorg. Plan of 1970 No. 3.

113. Pub. L. No. 92-500 § 102(a), 86 Stat. 816 (1972).

114. *Id.*

115. 33 U.S.C. § 1160(c) (1970).

116. Pub. L. No. 92-500 § 303(a) (1), 86 Stat. 816 (1972).

117. *Id.*

are also provisions for new standards if standards have not been promulgated¹¹⁸ and provisions for periodic revision.¹¹⁹

Most western states have adopted Water Quality Acts in compliance with the Water Pollution Acts.¹²⁰ However, consideration will be deferred until state legislation is considered.

B. Inclusion of Groundwater in the Water Pollution Control Act Amendments of 1972

The Water Pollution Control Act Amendments of 1972 are much more detailed and inclusive than previous legislation. The Act is divided into five major titles, which deal with research, grants for construction of treatment works, standards and enforcements, and permits and licenses. Under these general titles specific areas of groundwater pollution are covered more thoroughly than in previous legislation. The Act provides specifically for protection from groundwater pollution in several places. A very important provision, at least from a financial standpoint, is that no grants beginning in 1974 can be made to a state which is not carrying out a monitoring and analysis program to determine the quality of groundwaters.¹²¹

Under Standards and Enforcements the administrator shall develop criteria for water quality, including groundwater, accurately reflecting the latest scientific knowledge on the kind and extent of all identified effects on health.¹²² Also the Administrator shall publish information on factors necessary to restore and maintain the chemical, physical and biological integrity of all groundwater. Likewise information on methods of controlling pollution of disposing pollutants in wells or in subsurface excavations shall issue.¹²³ Another specific reference to groundwater is in the definition of "pollutant." This term does not include water, gas or other material which is used to facilitate the production of oil or gas if the process has been approved by the state where the well

118. *Id.* at § 303(a)(3).

119. *Id.* at § 303(c)(1).

120. *Supra* note 13.

121. Pub. L. No. 92-500 § 106(3), 86 Stat. 816 (1972).

122. *Id.* at § 304(a)(1).

123. *Id.* at § 304(e)(D).

is located and if the state determines that such injection will not result in the degradation of groundwaters.¹²⁴

The Act provides for enforcement in that any violation of an effluent standard or limitation shall be punished by a fine of not less than \$2,500 or more than \$25,000. If the conviction is after the first conviction, \$50,000 shall be the maximum.¹²⁵

The Act also provides for citizen suits in which any citizen adversely affected may bring a civil suit against any person who is alleged in violation of an effluent standard or limitation or against the Administrator to perform any act or duty which is not discretionary.¹²⁶ The Act specifically states that it shall not restrict any right which any person may have under any statute or common law to seek enforcement of any effluent standard or limitation or to seek any other relief.¹²⁷

Although the Act does not specifically mention groundwater in crucial sections, arguably groundwater could be included. The national goal for abatement of pollution by 1985 refers only to "navigable waters."¹²⁸ Arguably, however, as considered earlier any waters which flow into navigable waters may be controlled federally since these waters affect navigable waters. Some groundwater does contribute to flow in navigable streams and thus might be considered navigable under this rationale.

Another important section which does not specifically include groundwater is Section 301, which provides that the discharge of "any pollutant" is unlawful.¹²⁹ However, Section 402 provides for permits for the discharge of a pollutant if the discharge does not violate effluent standards.¹³⁰ Any pollutant is defined broadly as any substance which is discharged.¹³¹ By 1983, however, the effluent limitations shall require the elimination of the discharge of all pollutants if

124. *Id.* at § 502(6).

125. *Id.* at § 309(c)(1).

126. *Id.* at § 505.

127. *Id.* at § 505(e).

128. *Id.* at § 101(1).

129. *Id.* at § 301(a).

130. *Id.* at § 402(a).

131. *Id.* at § 502(b).

technologically and economically feasible.¹³² The application of these sections to groundwater will no doubt depend upon the scope which the Environmental Protection Agency attaches to the section.

Thus most specific references to groundwater involve issuance of information to abate or control pollution. Yet if a violation of an effluent standard causes groundwater pollution, a citizen suit can be brought to enforce the standard. Even though the Act may not be the answer to all groundwater problems, it at least makes clear that groundwater is to be covered by the Act and sanctions individual relief.

Another avenue of attack against a groundwater polluter in light of a recent federal district court case, *United States v. Amco Steel Corp.*,¹³³ is the use of the Rivers and Harbors Act of 1889.¹³⁴ Originally the Act was to prevent obstructions to navigation.¹³⁵ However, it was expanded to control pollution in navigable waters.¹³⁶ The *Amco* case arguably extends the Act's authority into the realm of controlling groundwater pollution although the exact authority for the extension is unclear.

The case arose when the federal government sued for an injunction to halt discharge of pollutants into the Houston Ship Channel and to prevent the use of a state ordered injection well as an alternate disposal method.¹³⁷ A violation of the Act was found by the disposal into the Houston Ship Channel.¹³⁸ However, the court apparently rejected the two theories espoused by the plaintiff for federal court jurisdiction on the groundwater question.¹³⁹ One of the theories was that once a court grants equitable relief it must give total equitable relief and the other was pendant jurisdiction.¹⁴⁰ The court said that subsurface disposal was within state jurisdiction.¹⁴¹ However, the court proceeded to hold that although

132. *Id.* at § 201(b) 2(a).

133. 33 F. Supp. 1073 (S.D. Texas 1971).

134. 33 U.S.C. § 407 (1970).

135. *Id.*

136. *U.S. v. Ballard Oil Co. of Hartford, Inc.*, 195 F.2d 369 (2d Cir. 1952).

137. *U.S. v. Amco Steel Corp.*, *supra* note 132, at 1974-75.

138. *Id.* at 1078.

139. *Id.* at 1079.

140. *Id.*

141. *Id.*

it was not within its province to direct or compel any certain method of disposing of the waste, it could enjoin Amco from further disposal until replugging operations were effected to meet the requirements of the Texas Water Development Board.¹⁴² The replugging was necessary to prevent seepage into fresh water sands which were impervious except for previously drilled oil holes.¹⁴³

In *Amco* there was clearly an attempt to extend the Act to cover groundwater pollution even though the allowed injunction was only temporary. Any definite answer to its coverage however, probably will have to await further judicial decision, which will arguably be based at least partially upon Section 402 of the Federal Water Pollution Control Amendments of 1972.¹⁴⁴ This section in connection with Section 301 prohibits any discharge of pollutants into navigable waters with the exception that permits for discharge of any pollutant may issue if the effluent limitations are not violated.¹⁴⁵

Section 402 may supercede the Rivers and Harbors Act, at least in part. Section 402 provides that any permits for discharges into navigable waters issued pursuant to Section 13 of the Rivers and Harbors Act shall be deemed permits issued under Section 402.¹⁴⁶ Although Section 402 explicitly says that no permits shall issue under the Rivers and Harbors Act it does not specifically say that Section 13 is no longer effective. Rather Section 402 mentions the Rivers and Harbors Act in addition to Section 301 of the 1972 amendments, which prohibits pollution, as not preventing a discharge if an application for a permit has been filed.¹⁴⁷ This subsection arguably treats the Act as still in force.¹⁴⁸ However, whether Section 301 of the Federal Water Pollution Control Amendments of 1972 supercedes the Rivers and Harbors Act in pro-

142. *Id.* at 1083.

143. *Id.* at 1076.

144. Pub. L. No. 92-500 § 402, 86 Stat. 816 (1972).

145. *Id.* at § 301, § 402.

146. *Id.* at § 402(a) (4).

147. *Id.* at § 402(k).

148. See also § 511(a) which deals with other affected authority. Arguably under this section the Rivers and Harbors Act is not effected except as to the permit system. Pub. L. No. 92-500 § 511(a), 86 Stat. 816 (1972).

hibiting pollution will have to be decided ultimately by the courts.

Section 402 also provides for the permit program to be administered by the states if they meet the requirements of Section 402.¹⁴⁹ The Senate Report shows that because the conference committee recognized the essential link between ground and surface waters and because any distinction is artificial, Section 402 was to place controls over the injection or placement in wells of any pollutants that may affect groundwater.¹⁵⁰ The report went on to emphasize the importance of preventing groundwater pollution. It noted that although groundwaters can accrue more pollution with less obvious, direct degradation, because of slow circulation, they will be more difficult to clean and may remain polluted for centuries. It also noted that although groundwater pollution is not as serious today as surface pollution, its seriousness may be compounded as deep disposal wells become more prevalent and deep water wells become more necessary to the public water supply.¹⁵¹

According to the legislative history, Section 402 was intended to apply to groundwater as well as navigable water. As an alternative one might argue that, to the extent groundwater contributes to navigable water, it too can be regulated federally. Thus the *Amco* decision may have merely set the stage for more judicial decisions under the Rivers and Harbors Act or under the Federal Water Pollution Control Act Amendments of 1972 in the groundwater pollution area.

In addition to the possible restriction in application of the Rivers and Harbors Act, the 1972 Amendments limit the application of the National Environmental Policy Act of 1969 (NEPA).¹⁵² Generally, with several exceptions, no action by the Administrator taken pursuant to the 1972 Amendments shall be deemed a major Federal action under NEPA.¹⁵³ Neither can any federal agency under NEPA make a permit to pollute or authorize a condition precedent to a permit.¹⁵⁴

149. Pub. L. No. 92-500 § 402(b), 86 Stat. 816 (1972).

150. S. REP. No. 92-414 § 402, 92 Cong., 2nd Sess. (1972).

151. *Id.*

152. Pub. L. No. 92-500 § 500(c) (1) (2), 86 Stat. 816 (1972).

153. *Id.* at § 511c (1).

154. *Id.* at § 511(c) (2).

Unlike the Rivers and Harbors Act, the Water Quality Act of 1965 and the Federal Water Pollution Control Act amendments of 1972 specifically recognize the congressional policy that the states originally had and still have the primary right to prevent and eliminate pollution.¹⁵⁵ These Acts were passed to assist the states and to direct and unify progress.¹⁵⁶

STATE LEGISLATION

Most western states assert ownership of groundwater and it is under this assertion that the states exercise police powers of regulation over pollution.¹⁵⁷ Prior to the requirements for promulgation of water quality standards under the Water Quality Act of 1965,¹⁵⁸ western states had scattered protective statutes against pollution.¹⁵⁹ However, with the passage of Water Quality Acts¹⁶⁰ by most western states, their legislation against pollution has become more uniform. Most of the acts have similar definitions of water, which generally include "springs" or "wells" or the more general term of "underground" waters. Some may extend to "all waters" and then specifically include "springs" or "wells."¹⁶¹ A general definition of "pollution" may be paraphrased as: the alteration of properties of waters of the state or any contamination of the waters that is likely to cause a nuisance or render such waters of the state harmful to the public health, safety, or welfare.¹⁶²

Most Acts imply in their general goals, which are to conserve their waters for the public, authority of police powers which will implement the goals. Colorado, however, is repre-

155. *Id.* at § 101(b).

156. *Id.*

157. Moses & Vranesh, *Colorado's New Ground Water Laws*, 38 U. COLO. L. REV. 295, 297 (Spring 1966).

158. 33 U.S.C. § 1160(c) (1970).

159. See 82 OKLA. STAT. tit. 82, § 1002 (1970); 35 WYO. STAT. § 88 (1957). These state laws are merely representative of western state laws which are scattered throughout the statutes before the more comprehensive state water quality acts were enacted.

160. *Supra* note 13.

161. See UTAH CODE ANN. § 73-14-2(f) (1953); N.M. STAT. 75-39-2(G) (1953). These statutes are likewise representative of the different types of statutes in western states.

162. This paraphrase is from IDAHO CODE 39-103 (8) (Supp. 1972). Some statutes are more limited like Montana's which defines pollution as the alteration of any of the properties of state waters which is detrimental to their most beneficial use. REV. CODE OF MONT. 69-4802(5) (1947). Most, however, are similar in complexity to the definition from Idaho.

sentative of a state which explicitly mentions the "police powers," which are to protect the public health and welfare.¹⁶³

The states differ as to what agency or commission is responsible for administering the acts. Some states like Montana, charge the state board of health with administration.¹⁶⁴ Still other states have created a separate department of environmental protection and health which is run by an administrator.¹⁶⁵ The administrator instead of a commission is to promulgate rules and regulations to enforce the act, including the control and abatement of water pollution.¹⁶⁶ A hearing board is often created to hear parties aggrieved by the board's action or inaction.¹⁶⁷

All states which have acts give the administrative authority the power to promulgate water quality standards in compliance with the Water Quality Act of 1965.¹⁶⁸

For financial support of water pollution programs states look partially to the federal government. Washington's statutory provision is exemplary of authority to take grants from the federal government.¹⁶⁹ However, as noted under the Federal Water Pollution Control Amendments of 1972 unless a state carries on a program of determining groundwater standards, no grants will be made beginning in 1974 to the state.¹⁷⁰ Perhaps the federal provision was enacted in response to the nonexistent references made in the water quality standards promulgated to groundwater standards. Colorado, Oregon, Oklahoma and Wyoming are representative states which have promulgated water standards which purportedly are applicable to all waters of the state. However, no specific standards are set for groundwaters.¹⁷¹ Perhaps, Colorado's statutory authority justifies this result since it provides that

163. COLO. REV. STAT. ANN. 66-28-1 (Supp. 1967).

164. MONT. REV. CODE ANN. 69-4805 (1947).

165. See COLO. REV. STAT. ANN. 66-28-3 (Supp. 1967).

166. See IDAHO CODE 39-105(1) (Supp. 1972).

167. See IDAHO CODE 39-107(6) (Supp. 1972).

168. MONT. REV. CODE 69-4813 (1947) is representative of the specific statutory authority which enables the administrative authority to promulgate standards.

169. REV. CODE OF WASH. 90.48.153 (1962).

170. Pub. L. No. 92-500 § 106(e), 86 Stat. 816 (1972).

171. See Water Quality Standards and Stream Classification, Water Pollution Control Commission—Colo. Department of Health (1971); Okla. Water Quality Standard, Okla. Water Resources Bd. (1968); Ore. Water Quality Standards, Wyo. Dept. of Public Health (1968).

the commission has the authority to determine whether the standard should be applicable to all types of waters or to only one or more specifically described types of waters, such as flowing water, lakes, aquifers or ditches.¹⁷² Oklahoma's State Water Resources Board, however, is developing data on the location, quantity and quality of ground water resources.¹⁷³ Other States, according to the federal legislation, must begin to develop groundwater programs with an end to issue specific groundwater standards or any financial support may be severed.

Finally all state water quality acts provide for enforcements by fines and injunctions. Washington statutes are representative of the enforcement legislation. Washington provides the discharge of polluting substances shall be a misdemeanor.¹⁷⁴ Washington then provides for a fine of not more than \$100 or imprisonment for not more than one year or both.¹⁷⁵ Other states like Idaho provide for a larger fine of \$1,000 per day.¹⁷⁶ A provision which is common to all acts is that each day of violation may be deemed a separate violation.¹⁷⁷ A single fine of \$100 per day may not be as effective as an injunction. However, a \$1,000 per day fine may effectuate a discontinuance unless a large company feels the cost of polluting is less than the cost of rearranging its polluting process. California provides the legislative equivalent of the Restatement rule that discharging does not create a vested right.¹⁷⁸ California also has a unique provision which provides that the polluter shall be liable for any cleaning up costs incurred by the state.¹⁷⁹

A provision which states that legislation does not prevent private nuisance actions is probably not necessary since the states do not pre-empt the civil area. Nevertheless, California includes such a provision.¹⁸⁰ These provisions for multiple

172. COLO. REV. STAT. § 66-28-72(d) (Supp. 1967).

173. Okla. Water Resources Bd., Water Quality Standards for the State of Okla. 4 (No. 20, 1968).

174. REV. CODE OF WASH. ANN. § 90.48.140 (1962).

175. *Id.*

176. See IDAHO CODE 69-108(6) (Supp. 1972).

177. See REV. CODE OF WASH. ANN. § 90.48.140 (1962).

178. CAL. WATER CODE § 13263 (1971).

179. CAL. WATER CODE § 13304 (1971).

180. CAL. WATER CODE § 13002 (1971).

remedies certainly suggest a "get tough" attitude by the states. Both the Tentative Draft of the Restatement and the legislative history of the 1972 Amendments emphasize that there is no right to pollute¹⁸¹ and the 1972 Amendments themselves deny the right to pollute even though a permit can be obtained for a discharge of a pollutant.¹⁸² The permit can only be secured if the effluent limitations are not violated and thus the discharge would not be considered pollution. The states have the right to establish their own permit programs if the programs meet the federal criteria.¹⁸³ However, the administrator can deny permit programs to the states if he determines that adequate authority does not exist to control the disposal of pollutants into wells. He also has authority to monitor the programs, to require reports, and to insure that the public and other affected states will receive notice of a request for a permit which might affect them, and to require the states to provide an opportunity for a hearing.¹⁸⁴

These are only some of the requirements. The effect of these permit programs may be that substantial amendments will occur in state water quality acts to provide authority for the permit programs. Also many substances which have not been considered effluent may become effluent under federal and state limitations.

In addition to the Water Quality Acts, states have promulgated regulations which cover various areas. Some of these regulations have been promulgated under the acts although some have not been. Wyoming and Idaho are several states in which the state engineers have promulgated minimum water well construction standards.¹⁸⁵ It is emphasized that the standards are minimum but if these standards will not protect from pollution, the driller must provide additional safeguards.¹⁸⁶ The state engineer has the power to require

181. RESTATEMENT OF TORTS § 849, comment a at 337 (1939); S. REP. NO. 92-414 § 402, 92 Cong., 2nd Sess. (1972).

182. Pub. L. No. 92-500 § 402, 86 Stat. 816 (1972).

183. *Id.* at § 402(b) (5).

184. *Id.* at § 402(b) (1-8).

185. See Idaho's Minimum Water Well Construction Standards, Idaho Department of Reclamation (July 1968).

186. See Wyo. Minimum Water Well Construction Standards, Ch. 2, § 2(b) (July 1971).

the sealing of any well responsible for the admission of polluting substances.¹⁸⁷

Another type of regulation governs waste disposal.¹⁸⁸ Broadly these provide for construction requirements, permit procedures and enforcement measures.¹⁸⁹

Some states also have Oil and Gas Conservation Commissions which have promulgated regulations according to legislative authority.¹⁹⁰ These include requirements for plugging wells, for retaining pits, and for underground disposal of water.¹⁹¹ Other states have scattered provisions which were enacted to prevent water pollution by oil operations.¹⁹²

Clearly the authority exists on the state level for control of groundwater pollution. Provision has been made statutorily for groundwater quality standards. Although states have primarily emphasized surface water quality standards, the federal government with the Federal Water Quality Amendments of 1972 has nudged the states into action on groundwater monitoring and analysis programs with the goal of groundwater quality standards. Nothing could be more clear than the threat to sever federal funds provided to help states finance water pollution programs that are federally required. Unless states wish to "go it alone," it can only be expected more emphasis on groundwater will be forthcoming.

Regardless of the elaborate legislation enacted to cope with groundwater pollution, the legislation can only be effective when the source of pollution can be traced. That is, before a permit to pollute under Section 402 of the 1972 Amendments will issue, affected states must be notified.¹⁹³ However, because groundwater pollution may be difficult to trace, a state may be unable to anticipate interstate groundwater pollution. Thus a large problem in the groundwater

187. *Id.* at Ch. 1, § 1(d) (July 1971).

188. *See* Oklahoma Water Resources Board, Industrial Waste Disposal Wall Rules & Resp. (No. 200-1).

189. *Id.* at 2-12.14.

190. *See* Wyo. Oil and Gas Conservation Comm., Rules and Regulations of the Wyoming Oil and Gas Conservation Commission (August 1971).

191. *See* Colorado Oil and Gas Comm., Rules and Regulations, § 324-31 (August 1971).

192. *See* CAL. WATER CODE §§ 3228, 5650 (1971). VERNON'S TEX. STAT. ANN. § 6029 (1962).

193. Pub. L. No. 92-500 § 402(b) (3), 86 Stat. 816 (1972).

pollution context may be that legislation can only conform to existing knowledge of the subject. Thus the monitoring requirements are of vast importance in this area.

However, even though more groundwater legislation may be expected, an answer should be attempted to the question of what a plaintiff's remedy is under existing legislation for intentional or unintentional pollution. If a polluter intentionally or unintentionally pollutes the plaintiff's well, under the 1972 Amendments the plaintiff may bring a citizen suit to enforce an effluent limitation. This action may parallel the common law injunction. The 1972 Amendments make clear that the plaintiff may also pursue any other remedy, which may entail a suit for damages. Also the polluter may be fined a maximum of \$25,000. All possible remedies suppose that plaintiff has persuaded the court that groundwater is covered by the applicable sections.

Under state legislation groundwater is specifically covered and similar remedies obtain. The polluter may be fined and/or enjoined. A \$1,000 fine for each day of continuing pollution will probably have an injunctive effect. Many acts also state that the statutes do not pre-empt the field and plaintiff may still bring a common law suit for damages.

Thus it appears that a plaintiff's position against a groundwater polluter is improved by legislation. He need not rely totally on the common law but may enlist the aid of statutes upon which his action may be based. If he can show an effluent limitation has been violated, pollution will be shown.

CONCLUSION

Remedies against groundwater pollution on the private, state, and federal levels have been clearly established by precedent as well as recent legislation. Private remedies have been stressed by both federal legislation through citizen suits and by state statutes, which have recognized private litigation. State groundwater quality standards, which should be established, may simplify the burden of proof for the private litigant and the state enforcement authority. One thing is cer-

tain. The federal government is serious in requiring groundwater programs and more attention to the control and abatement of groundwater pollution.

SUNNY JEANNE NIXON