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Common Law Remedies for Salt Pollution

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NOTES AND COMMENTS

COMMON LAW REMEDIES FOR SALT POLLUTION

INTRODUCTION

Salt is a problem which has become disquieting and, in some areas, alarming for the irrigation farmer of the Southwestern States. The saline content of many natural streams in the Southwest has been steadily rising in recent years, and has become so serious on the lower Colorado River that it has caused the Government of Mexico to demand that the problem be ameliorated. As a result the Governments of the United States and Mexico signed an agreement which guaranteed that the water of the Colorado which is released to Mexico will have a salinity level only slightly higher than that used by the American farmers across the border.¹ Although the catastrophic situation that existed for a time in the Mexicali Valley has not yet occurred within the United States, the salt problem is becoming serious for irrigators in many areas.

There are several reasons for this increase in the salinity of streams in the Southwest. The most important of these are: (1) Consumptive use of water, especially near the top of a stream system, leaves less water in the stream to dilute the salt load. The main type of consumptive use in the Southwest, irrigation, consumes only the fresh water and leaves its salt load behind, thus concentrating the existing salt in a smaller volume of water.² (2) The construction of reservoirs causes more evaporation, leaving less water in the stream to dilute the salt.³ (3) Many uses of water add more salt to the water. The prime example of this process is irrigation agriculture, at least during the early years of a project before a "salt balance" is achieved. Irrigation not only reduces the amount of water in a stream through

1. Minute 242 of the International Boundary and Water Commission. The Colorado River Salinity Control Act, Pub. L. No. 93-320, 88 Stat. 266 (1974), was passed by Congress to implement this agreement. Among other projects, this legislation authorized the construction of a desalting plant near Yuma, Arizona. See also *International Symposium on the Salinity of the Colorado River*, 15 Nat. Res. J. 1-240 (1975), which extensively discusses Minute 242 and the problems it purports to solve.

2. Irrigation of Agricultural Lands 1000-1001 (R. Hagan, H. Haise, & T. Edminster eds. 1967); Shelledy, *Agricultural Irrigation and Saline Quality of Water*, 5 Land & Water L. Rev. 491 (1970).

3. Senate Select Committee on National Water Resources, 86th Cong., 2d Sess., National Water Resources and Problems 26-27 (Comm. Print 1960).

consumptive use; an additional amount of salt, present in the soil, is dissolved by the irrigation water and added to the salt load in the stream.⁴ (4) In some areas—the Wellton-Mohawk Irrigation District in Arizona is a notable example—the groundwater is highly saline. A period of over-irrigation for the purpose of leaching salt out of the soil causes the groundwater table to rise so close to the surface that it encroaches on the root zone of the crops. In order to save the productivity of their fields, the irrigation farmers in these areas pump the groundwater into the stream with their return flow in order to lower the water table.⁵ This saline groundwater can have a dramatic impact on downstream irrigation unless there is enough water remaining in the stream to dilute the groundwater sufficiently to make it usable.

Although the Federal Government has taken substantial measures to control other types of pollution, salt pollution has received little attention except as part of an international problem. Even in the Colorado River Salinity Control Act, only a few short steps were taken to solve the problem. Most of the projects authorized by the Act, other than those provided for in Minute 242, will go to control natural rather than artificial sources of salt on the Colorado and its tributaries.

The state governments have likewise been lax in developing and enforcing salinity standards.⁶ At least two Western states, Arizona and Wyoming, do recognize salinity as a problem to be controlled, but have avoided doing anything that would directly regulate irrigation practices and saline return flows.⁷

Governmental inaction is understandable to a certain degree because of the complex political and economic questions involved and the intricate pattern of water uses that would be affected. No one wants to tinker with such an important system as the system of water law in the arid states without a clear idea of what the consequences and ramifications will be. As a result of this governmental inaction, however, it is still pretty much up to the individual farmer to protect himself if he is injured by salt pollution.

In this paper, therefore, I intend to explore the common law right of a downstream water right owner to water of usable quality and his legal ability to protect that right. In order to suggest some tentative answers to the salt problem, I have developed several hypothetical

4. *Id.* See also Bower, *Some Physical, Technological, and Economic Characteristics of Water and Water Resources Systems: Implications for Administration*, 3 Nat. Res. J. 215, 219 (1963); Shelledy, *supra* note 2.

5. Hagan et al., *supra* note 2.

6. Shelledy, *supra* note 2.

7. *Id.*

situations which I hope will illustrate the various aspects of the problem and test the legal theories in use by the courts. Next I will discuss various definitions of pollution, the nature of an appropriator's right to water, the legal causes of action available to him to protect that right, and the remedies that the courts may grant him. Finally, I will go back to the hypotheticals to see what results the private litigant can expect from his day in court.

Although I approach the hypotheticals from the point of view of a New Mexican water user and assume that New Mexico procedural law will apply, this discussion will of necessity draw on the law of other appropriation states and will hopefully be relevant to the Western states in general. I have intentionally avoided adding an interstate dimension to either the hypotheticals or the discussion. Consideration of choice of forum and conflict of laws problems would complicate the article without making any significant contribution to the basic discussion. I have also avoided discussing ground-water problems, for similar reasons.

HYPOTHETICALS

Hypo 1: A has the oldest right on the river (1890) and he is also the furthest downstream water user. Fifteen years ago a new irrigation project (I) began operating about ten miles above A's point of diversion with a priority of 1958. Since much of the soil in this project was naturally saline, the farmers in the project overirrigated in order to leach their fields. As a result the water table was raised to such an extent that saline groundwater began encroaching on the root zone of the crops. In 1972 the project began pumping the groundwater in order to lower the water table again. The saline discharge was allowed to flow into the river, drastically increasing its saline content. A still receives as much water as he has a right to divert, but the water now kills his crops. A brings suit against I, which is a corporate entity and owns the water rights used in the project, to enjoin the discharge of salt water into the river and for damages. What are his chances of success?

Hypo 1A: The facts are the same as in Hypo 1 except that A has a priority date of 1965. Does it make any difference that A's right is junior to I's?

Hypo 1B: The facts are the same as in Hypo 1 except that A has a priority date of 1973. He now finds that he cannot use the water for irrigation as he had intended. Does he have any chance of success if he sues I?

Hypo 1C: The facts are the same as in Hypo 1 except that the water which A receives is not completely unusable. He is told that if

he uses twice the normal amount of water to irrigate his lands, the resultant salt equilibrium will be tolerable for his crops. Since there is no more unappropriated water in the river, A obtains a permit to stack his existing entitlement on half of his land. He also files suit against I for damages and injunctive relief. Will the fact that his right is impaired rather than destroyed have any effect on the outcome of the suit?

Hypo 2: B has the oldest water right on the river (1890) and he is also the furthest downstream user. Five years ago a new irrigation project (J) began operations with a priority date of 1968. Due to the consumptive use of water by the crops and the saline nature of the soil, J's return flow has increased the salinity of the river water at B's point of diversion to a level that is completely unusable for irrigation. B goes to court against J for injunctive relief and damages.

Hypo 2A: The facts are the same as in Hypo 2 except that B has a priority date of 1970. Will the fact that B has a junior priority have any effect on the outcome of the suit?

Hypo 2B: The facts are the same as Hypo 2 except that B is still able to use the water for irrigating his crops so long as he stacks the water on only half of his land (the State Engineer has approved his application to do this). Will this situation constitute sufficient impairment of B's right for him to be successful in court?

Hypo 3: C has the oldest water right on the river (1890) and he is also the furthest downstream water user. Over the years agricultural development upstream of C has caused a gradual increase in the salinity of the river at C's point of diversion. In 1960 C obtained a permit to stack water from half of his acreage on the other half in order to continue raising some crops. In 1965 C obtained a twenty year loan and mortgaged some of his land in order to install tile drainage to alleviate the salt problem. He still has another eleven years to pay on the loan. In 1973 the situation became so bad that C can no longer raise any crops on his land. C files a class action suit, pursuant to Rule 23(a)(3) of the New Mexico Rules of Civil Procedure, against all upstream water users asking for injunctive relief and damages.⁸ Assuming that this suit will be allowed under Rule 23, will C be successful?

Hypo 3A: Would C be successful if he had brought this suit in

8. It should be noted that the reason that a class action suit was used even though it would probably not be allowed under the New Mexico version of the rules is to keep the initial cost of the suit within the realm of possibility for an individual litigant to pay. The suit could have been brought by suing and serving all of the parties individually. In the end, of course, the suit would be prohibitively expensive because of the burden of proof as to all of the defendants.

1960 before he made any substantial expenditures and before his right became completely worthless for irrigation?

Hypo 3B: Would C be successful if he had a priority date of 1970 and began constructing his diversionary works at a time when the water was already so saline that it was practically unusable?

POLLUTION

The first step in developing a legal cause of action to protect private water users against pollution is to define pollution. In the apparent absence of a definition by the New Mexico courts, I will have to look elsewhere. Kinney defined pollution as:

... any use of a stream, or other body of water, that materially fouls the water, or the deposit therein of any filth or debris that so far affects the water as to impair its value for ordinary purposes, or anything which renders the water offensive to taste or smell, or which is calculated to excite disgust in those using it for ordinary purposes.⁹

This definition has in common with other traditional legal and non-legal definitions of pollution the idea that filth, debris, foulness, or disgust must be associated with a condition before it can be labeled pollution.¹⁰ Definitions such as these do not retain much usefulness in the area of water law because they fail to take into account such "clean" pollutants as salt, radioactivity, and heat.

A modern definition of pollution must deal with these clean pollutants and must also recognize that not all substances added to water are harmful; some additives may even be beneficial.¹¹

Another facet to pollution is revealed by Kinney's definition: pollution is related to impairment of use. Although pollution has recently been defined as "all the activities of man that in any way degrade the quality of water,"¹² and "the introduction of anything into water,"¹³ these definitions are mainly appropriate in maintaining or enhancing the environmental quality of water. They are obviously not going to be useful to the private litigant who must show actual damages or irreparable injury to his land or crops in

9. 2 C. Kinney, *Irrigation and Water Rights* 2043 (2d ed. 1912).

10. 33 Words and Phrases, *Pollute* (1971); Webster's New International Dictionary 1756 (3d ed. 1966); Black's Law Dictionary 1320 (rev. 4th ed. 1968).

11. In *Kaul v. City of Chehalis*, 45 Wash.2d 616, 277 P.2d 352 (1954), the Washington Supreme Court held that fluoridation of a city water supply was not pollution because the amount of fluoride to be added would not contaminate the water.

12. Senate Select Committee, *supra* note 3, at 25; Comment, *Water Pollution Control in Colorado*, 36 U. Colo. L. Rev. 413-414 (1963-64).

13. Matthew, *Practical Comment: A Lawyer's Pollution Primer*, 16 S.D.L. Rev. 309 (1971).

order to obtain satisfaction in the courts. A second and more useful definition is also suggested by Matthew: "Water pollution is the introduction of anything into water which adversely affects a subsequent beneficial use."¹⁴ Matthew states that this definition has been tested in the courts, but he does not cite any cases.

Matthew's definition is still lacking in two respects. First, it requires that the pollutant be introduced into the water. It fails to take into account the situation where a substantial amount of water is withdrawn from the stream, thereby diminishing the amount of water available to dilute the salt load of the stream.¹⁵ It is also questionable whether it would cover the situation where a farmer's irrigation return flow leaches the soil as it returns to the stream. Second, it fails to set a standard for how great the adverse effect must be before the water can be considered polluted.

Although there are no New Mexico authorities defining pollution, there are two New Mexico cases which can be used to remedy, at least partially, the first of the defects in Matthew's definition. In *Heine v. Reynolds*,¹⁶ the New Mexico Supreme Court was considering the State Engineer's authority to approve changes in well sites. The Court held that under New Mexico Statutes Annotated, § 75-11-7 (1953), the State Engineer had an affirmative duty to determine whether existing water rights would be impaired before approving a change in the location of a well or other change in the use of water.

Appellant argues that, on the basis of reasonableness, the word "substantially" must be construed to be inherent in the . . . statute. Otherwise, he argues, *any* impairment, even one *de minimus*, would be sufficient to sustain a denial of a change of location. The statute, of course, does not discuss *de minimus* impairments; it merely provides that the applicant must show that the change "will not impair existing rights." . . . It appears that the state engineer has no authority, under the statute, to grant such a change if there is impairment to existing rights.¹⁷

In this case the impairment involved was salt encroachment which would have increased the salinity of the water in existing wells. In a later case, *City of Roswell v. Berry*,¹⁸ the Court may have revised its position. In that case the Court held that where the change of location has a "negligible effect" on an existing use, there is no impair-

14. *Id.* See also Clark, *Water Pollution Law in Idaho*, 1 Idaho L. Rev. 111 (1964).

15. B. Gindler, 3 Waters and Water Rights § 203.1(C) (R. Clark ed. 1967).

16. 69 N.M. 398, 367 P.2d 708 (1962).

17. *Id.* at 399, 367 P.2d at 709.

18. 80 N.M. 110, 452 P.2d 179 (1969).

ment of that use. The Court defined negligible effect as "an effect of such little consequence that it should be disregarded."¹⁹ The effect complained of was a slight lowering of the water table with no accompanying increase in salinity. In *City of Roswell v. Reynolds*,²⁰ the Court refined its position somewhat.

We agree with the City that the lowering of the water table does not necessarily constitute an impairment of the water rights of adjoining appropriators. . . . However, it does not follow that the lowering of the water table may never in itself constitute an impairment of existing rights. Whether there is impairment depends upon the facts of each case. . . . In the present case, we are also concerned with impairment by reason of increase in the salinity of the water by reason of a lowering of the water table.²¹

It seems clear that in New Mexico, then, an impairment to an existing right is a detrimental change in the availability or condition of the water which the owner of that right has a right to appropriate.

What is significant about these cases, even though they deal with ground water, is that the New Mexico Supreme Court does regard salt as a serious problem for irrigators and would probably define pollution in a way that would include salt. In the absence of a statute, it is not clear just what the extent of the impairment of an existing right must be before the owner of that right has a chance of winning in the courts. Several other statutes and cases deal with approval of applications for a water right or a change in use, but none of them give any direct help. New Mexico Statutes Annotated, §§ 75-5-22 and 75-5-23 (1953) provide that changes in the place of use, purpose, and point of diversion of surface water in water courses should not be approved by the State Engineer if they will cause any detriment to existing uses. These statutes do not cover a change in return flows which is the chief cause of salt pollution from agricultural sources. Also, in approving applications for new appropriations the state engineer is directed to look at whether there is unappropriated water available and whether the new use would be contrary to the public interest.²²

In *City of Albuquerque v. Reynolds*,²³ the city applied for permits to appropriate water from the Rio Grande underground water basin. The State Engineer denied the permits on the ground that the water which the city proposed to appropriate was necessary to main-

19. *Id.* at 116, 452 P.2d at 185.

20. 86 N.M. 249, 522 P.2d 796 (1974).

21. *Id.* at 253, 522 P.2d at 800.

22. N.M. Stat. Ann. § 75-5-6 (repl. 1968).

23. 71 N.M. 428, 379 P.2d 73 (1962).

tain the surface flow of the Rio Grande and that any diminution of the surface flow would impair the diversion rights of downstream users. The New Mexico Supreme Court upheld the position of the State Engineer. In doing so it used language which might have the effect of making *Heine, Berry* and *City of Roswell v. Reynolds* directly applicable to the question of impairment of rights to surface flows:

There does not exist one body of substantive law relating to appropriation of stream water and another body of law relating to appropriation of underground water. The legislature has provided somewhat different administrative procedure whereby appropriators' rights may be secured from the two sources but the substantive rights, when obtained, are identical.²⁴

Although these statutes and cases fail to define pollution, they do indicate a policy of the courts and legislature in New Mexico that existing water rights should be protected to the greatest extent possible consistent with the general welfare. They also show, as mentioned above, that salt is considered to be a significant problem in New Mexico and that any discussion of pollution will be related to its impact on existing beneficial uses of water. Further, they show that New Mexico water law clearly recognizes that human activity, other than the introduction of pollutants, can have a legally cognizable effect on water quality.

Water pollution, for the purposes of a private cause of action in New Mexico, can be defined as any human activity which has the effect of changing the nature or quality of public water in such a way as to impair an existing downstream beneficial use. Although this definition is somewhat extreme, it does seem to be in accord with New Mexico law. It must also be recognized that the definition is quite flexible. Either the courts or the legislature would have to quantify the word "impair," since the holdings in *Heine, Berry*, and *City of Roswell v. Reynolds* were based on a statute which may not be specifically applicable to surface water. The specific content given to this term would depend on a balancing of society's need to develop its water resources to the fullest extent and the desirability of protecting New Mexico water users in the full and unrestricted use of their property.²⁵

24. *Id.* at 437, 379 P.2d at 79.

25. I referred to Matthew's failure to include a standard for determining actionable impairment of an existing use as a defect. This is apparently unfair to Matthew since I failed to quantify actionable impairment in my own definition. I still think that actionable impairment must be quantified, but I do not feel that I have the requisite knowledge and experience, let alone wisdom, to attempt to do so.

AN APPROPRIATOR'S RIGHT TO PURE WATER

Traditional statements of appropriator's right to pure water are fairly represented by Wiel, quoting in part from *Conrad v. Arrowhead Hot Springs Hotel Co.*:

... The prior appropriator has an exclusive right to the purity of the stream as he found it, and cannot in *any* degree be subordinated to later claimants on the ground that such subordination is necessary to allow use by the subsequent appropriator.²⁶

"Locators and appropriators of the waters of a stream have no rights antecedent to the date of their location. If others have, prior to their location, decreased the quantity of water flowing in such streams, or caused a deterioration of its quality, the subsequent locator cannot complain. . . . In such cases the appropriator takes the water with his eyes open,—takes it as he finds it, . . ."²⁷

It is obvious that these are not the principles that the courts apply to pollution cases even though this may be the language that they use. Wiel recognizes this because he almost immediately qualifies his prior statement by acknowledging that there must be a material impairment of the water right of the prior appropriator before he has a legal cause of action and that the burden of proof is on the senior to show that his right has been materially impaired.²⁸ In *Wright v. Best*,²⁹ also, the court immediately qualified its first statement that a prior appropriator "is entitled to have the water at his point of diversion preserved in its natural state of purity," by recognizing that there must be such corruption of the water "as to essentially impair its usefulness for the purposes to which he originally devoted it," before the appropriator can enforce his right in the courts.³⁰

Also, the statement that the junior appropriator must take the water as he finds it is an overstatement of the law in one respect and an incomplete statement in another. There are three basic situations which can exist between an upstream senior and a downstream junior on a stream where there is unappropriated water. First, from the time he initiated his use, the senior may be polluting the stream to such an extent that it is unusable for anyone downstream. Second, the senior may be causing the water in the stream to be less desirable although still usable through his use of the water which he is entitled

26. 1 S. Wiel, *Water Rights in the Western States* 561 (3d ed. 1911). See also *Wright v. Best*, 19 Cal.2d 368, 121 P.2d 702, 709 (1942).

27. 1 Wiel, *supra* note 26, at 567, quoting from *Conrad v. Arrowhead Hot Springs Hotel Co.*, 103 Cal. 399, 37 P. 386 (1894).

28. 1 Wiel, *supra* note 26, at 569; see also *Ravndal v. Northfork Placers*.

29. 19 Cal.2d 368, 121 P.2d 702 (1942).

30. 121 P.2d at 709.

to divert. Third, the senior may begin polluting the stream after the rights of the downstream junior have been established. The court's formulation of the rights of a junior in *Conrad v. Arrowhead Hot Springs Hotel Co.*³¹ does not seem to cover the third situation at all and there is serious doubt whether it should control the first.

In the first situation, where a senior appropriator is rendering a stream entirely unfit for any further use, *Suffolk Gold Mining and Milling Co. v. San Miguel Consol. Mining and Milling Co.*³² and *Wilmore v. Chain O'Mines*³³ appear to provide the better rule. The courts in those cases applied a variation of the riparian reasonable use doctrine combined with appropriation principles to hold that where the senior diverts only a part of the stream, the amount of his diversion is the limit of his right to use water and he must allow the remainder of the water to flow down the stream in such a condition that it is fit for use further down. Although neither of these cases have been cited in recent years, they have never been overruled or even questioned. Also, they seem to be based on sound legal and public policy principles. In the appropriation states, water is a public resource which may only be diverted and put to private use in accordance with law. Senior appropriators are entitled to divert their entire needs before junior appropriators are entitled to divert any water. However, senior appropriators are limited in the amount that they can divert by the amount that they have historically been able to put to beneficial use; they are not allowed to waste water and they are not allowed to increase their diversion unless they comply with the legal requirements for making a new diversion. It would be inconsistent, then, to prohibit seniors from wasting water or unilaterally increasing their diversions while at the same time saying that it is all right for them to so foul the streams that the water is useless to anyone else. In an area where water is essential to life, such an uneconomical use should not be tolerated.³⁴ A more accurate statement of the law would seem to be that a senior may divert water and put it to beneficial use in compliance with law. If the use to which the senior puts the water causes a deterioration in the quality of the stream which is not unreasonable and which does not destroy the usability of the water, a subsequent downstream appropriator cannot complain—he must take the water as he finds it. For instance, maintaining a “salt balance” in an existing irrigation project would not, in

31. 103 Cal. 399, 37 P. 386 (1894).

32. 9 Colo. App. 407, 48 P. 828 (1897).

33. 93 Colo. 319, 44 P.2d 1024 (1934).

34. See 1 Wiel, *supra* note 26, at 567-68, 570; 2 Kinney, *supra* note 8, at 2069; State v. California Packing Corp., 105 Utah 182, 141 P.2d 386 (1943).

most cases, cause an unreasonable deterioration in the quality of a stream. If, on the other hand, the senior causes the entire stream to become unusable through his pollution, he is in effect wasting water which is owned by the public. Anyone who can put that water to beneficial use would seem to be a proper party to complain of the unreasonable pollution.³⁵ Public policy and the law of waste would seem to support curtailing the pollution of a stream by a senior appropriator. For instance, in *State v. McLean*³⁶ the New Mexico Supreme Court, in a case of forfeiture for waste of water from an uncapped artesian well, held:

Water appropriators and appropriations on each of the artesian basins of the state are numerous. The State is vitally concerned in every appropriation. The need for water is imperative, and often the supply is insufficient. . . .

When a land owner exceeds this (beneficial) use, he is appropriating to himself that which belongs to others who are entitled to a like use, and to that extent is obstructing the necessary use of water so as to interfere with its beneficial use, and which, by § 75-12-8, 1953 Compilation, is declared to be a public nuisance. Whatever right one has, even in his own, is subject to that established principle that his use shall not be injurious to the rights of others, or of the general public.³⁷

In the other situation mentioned above where the senior upstream appropriator suddenly begins to unreasonably pollute a stream, the same principle would seem to apply.³⁸ The senior would not be allowed to suddenly increase his diversion, begin consuming his re-

35. Whether such a party would have standing is a problem I do not intend to deal with here. If such a party were denied standing, no one would be able to protect the public interest in the stream except the state. Traditional standing rules would seem to deny a prospective user the standing to bring such a suit unless he could show actual injury. *Sierra Club v. Morton*, 405 US 727 (1972). The dissenting opinion of Justice Blackmun, however, indicates that standing rules may be changed in the foreseeable future. Also, the court may find that the would-be appropriator has been injured in some other way, such as in the enjoyment of his land, so that he would have standing. See also *National Helium Corp. v. Morton*, 455 F.2d 650 (10th Cir. 1971).

36. 62 N.M. 264, 272-73, 308 P.2d 983 (1957).

37. *Id.* at 272-73, 308 P.2d at 988-89. See also *Pecos Valley Artesian Conservancy District v. Peters*, 50 N.M. 165, 173 P.2d 490 (1946); Gindler, *supra* note 15, § § 210.4(H) and 212.3(A) where it is stated that a use by a prior appropriator, within the limits of his preference, is per se reasonable and that a subsequent appropriator may not complain of the pollution. It is then suggested that a use of water by a prior appropriator, especially a minor use, which renders the entire stream unusable, may not constitute a valid appropriative right because it is unreasonable and wasteful.

38. In Gindler, *supra* note 15, § 212.2(B), it is also suggested that a prior appropriator may lose his preference as to the quality of water he receives and the type of pollution he can reasonably cause if he changes his use after the initiation of rights by other appropriators.

turn flow, or even make any change in his use or point of diversion which would cause any detriment to downstream users, regardless of priority.³⁹ It is inconceivable, then, that a senior should be allowed to do by pollution what he could not do by changing his use or point of diversion.

The Colorado Supreme Court has put the entire matter of a downstream appropriator's right against an upstream pollutor on a sound basis in *Farmers Irrigation Company v. Game and Fish Commission*.⁴⁰ and *Game and Fish Commission v. Farmers Irrigation Company*.⁴¹ In the former case the court stated:

A priority to the use of water for irrigation or domestic purposes is a property right and as such is fully protected by the constitutional guaranties relating to property in general.⁴²

On this basis the court held that the plaintiffs had stated a legal cause of action where they had alleged that the water:

... was so polluted as to render it unfit for the purposes to which it had theretofore been applied by plaintiffs, and that their property rights therein were destroyed or seriously damaged.⁴³

The second case reaffirmed this holding and added the language:

Article II, Section 15, of the Colorado Constitution provides in pertinent part that, "Private property shall not be taken or damaged, for public or private use, without just compensation." This provision is not limited in its application to condemnation proceedings. It prohibits not only the taking of property but also the *damaging* thereof, and whosoever damages the property of another, whether

39. *Farmers Highline Canal & Reservoir Co. v. City of Golden*, 129 Colo. 575, 272 P.2d 629, 631-32 (1954), where the court said: "... junior appropriators have vested rights in the continuation of stream conditions as they existed at the time of their respective appropriations, and that subsequent to such appropriations they may successfully resist all proposed changes in points of diversion and use of water from that source which in any way materially injures or adversely affects their rights." See also *Hill v. Standard Mining Co.*, 12 Idaho 223, 85 P. 907, 910 (1906); "Where the lower appropriator makes his appropriation he has the right to assume the upper appropriator will continue the use of the water as he found it, and if any change would damage him in the use of his appropriation, the courts will protect him in his rights." But see *Metropolitan Denver Sewage Disposal District No. 1 v. Farmers Reservoir and Irrigation Co.*, 179 Colo. 36, 499 P.2d 1190 (1972), where the court held that a water right owner had no vested right in the point of return flow of the effluent of a sewage plant. This appears to be a very narrow holding. See Williams, *Optimizing Water Use: The Return Flow Issue*, 44 U. Colo. L. Rev. 301 (1972-73) for a discussion.

40. 149 Colo. 318, 369 P.2d 557 (1962).

41. 162 Colo. 301, 426 P.2d 562 (1967).

42. 369 P.2d at 559-60.

43. *Id.* at 560.

he be an individual or an agency of the state, must be held responsible in damages for the loss caused thereby.⁴⁴

Although a state agency was the polluter in these cases and in spite of the specific language in the Colorado Constitution with regard to "public or private use," this analysis is much more precise than the earlier statements and would seem to be valid in any appropriation state where property rights in the use of water are legally protected.

In a similar but less well articulated case, *Bunker Hill & Sullivan Mining & Concentrating Co. v. Polak*,⁴⁵ a federal circuit court of appeals considered an Idaho constitutional provision which gave preference to mining and milling uses of water over industrial and agricultural uses. The mining company claimed that this implied a right to pollute the stream they took their water from to any degree they found expedient. The court rejected this argument on the ground that Idaho law only gave the miners a preference in the use of water and did not give them the right to cause unreasonable pollution.

We find no merit in the contention and no authority to sustain it. It asserts for the miner in Idaho constitutional rights unknown to American constitutional law—the right not only to a preference in the use of a stream, but the right to inflict unlimited injury upon property of those who have acquired vested rights as manufacturers or agriculturists.⁴⁶

The implication of this case seems to be that one water user may have a legal preference over another as to the use of available water, but that it is illegal and perhaps unconstitutional for even a preferred water user to injure or destroy the existing property rights of others.

The general principle upon which an appropriator should be able to depend, therefore, is that once he has established a right to appropriate water for a particular purpose, he has a property right that is legally protectable.⁴⁷ If anyone unreasonably injures or destroys that right by polluting the stream from which the appropriator diverts his water, he has the right to either damages or injunctive relief or both against the polluter. This principle recognizes that: (1) an appropriator must take the water as he finds it unless the upstream polluter is maintaining a public nuisance; (2) water quality can deteriorate considerably before there is a legal cause of action available; (3) it is the usability of the water that is protected; (4)

44. 426 P.2d at 565 (emphasis added by the court).

45. 7 F.2d 583 (9th Cir. 1925), *cert. denied*, 269 U.S. 581 (1925).

46. 7 F.2d at 585.

47. *Snow v. Abalos*, 18 N.M. 681, 140 P.2d 1044 (1914); *New Mexico Products Co. v. New Mexico Power Co.*, 42 N.M. 311, 77 P.2d 634 (1937).

anyone who causes the water to become unusable, whether junior or senior, is liable to an existing downstream user who is injured, and (5) it is inevitable that the quality of a stream will become progressively worse downstream from its source.⁴⁸

CAUSES OF ACTION

An appropriator whose water right has been impaired by pollution has four possible theories of recovery: trespass, negligence, strict liability, and nuisance.⁴⁹ Trespass is not a proper theory for the ordinary pollution case because a direct invasion of the plaintiff's property must have taken place.⁵⁰ In order for trespass to be proper, the defendant probably must have released the salt water at a point where it would flow directly on the plaintiff's land.

Strict liability is also limited in use. This theory would have to be based on a statutory definition of pollution which gives the plaintiff an express or implied cause of action.⁵¹ There does not seem to be any New Mexico statute which could be stretched to cover salt pollution in a natural watercourse.

Negligence would seem to be of more general value and would not depend so much on a theory of pollution. Any negligent act which illegally invades a legally protectable interest of another is actionable. Since a water right is a legally protectable interest, the owner of the right has a cause of action against a person who damages that right. However, if the negligence theory is used, the plaintiff must prove that the defendant was negligent in allowing the pollution to escape into the stream. This is an added element of proof which the plaintiff does not need to bear if he sues under a nuisance theory and if the pollution was intentional. Since pollution is intentional if either (1) the defendant intended to harm the plaintiff or (2) the defendant knew that pollution was resulting or was substantially certain to result from what he was doing,⁵² the plaintiff would normally have an easier burden of proof under the nuisance theory. Indeed, negligence is not considered to be a proper theory at all except where the pollution was unintentional.⁵³

48. This is different in formulation and concept from the summary in Gindler, *supra* note 14, § 212.3(E), but I think that the practical result is similar. I put more emphasis on the protection of existing water rights rather than on priority.

49. Clark, *supra* note 14, at 114-16.

50. *Id.* at 114; Bunker Hill & Sullivan Mining and Concentrating Co. v. Polak, 7 F.2d 583 (9th Cir. 1925); Boise Development Co. Ltd. v. Boise City, 30 Idaho 675, 167 P. 1032 (1917). See also 3 Clark, *supra* note 14, § 210.3.

51. Gindler, *supra* note 15, § 217.2.

52. *Id.*, § 210.4(C).

53. *Id.*, § 210.4(I). See also Clark, *supra* note 14, at 115. This distinction between negligence and nuisance does not seem to be consistent with the distinction made in Hunts-

The court in *Bunker Hill* approved this definition of nuisance:

So it is a nuisance if a riparian proprietor shall cast into the stream earth, sand, and refuse of his business, or other things, which by the flowing water are carried and deposited upon the land of a proprietor below. The tort here consists in the act of committing the rubbish to the stream; the deposit upon the land below is only the consequence from which a cause of action in favor of a particular individual arises.⁵⁴

According to the analysis of the *Restatement*⁵⁵ contained in Clark,⁵⁶ the plaintiff in an action for private nuisance must prove that he suffered substantial harm; that the pollution was intentional; and that the defendant's actions were unreasonable in the circumstances which include any waste of water by the defendant, the relative priorities of the parties, the use made of the water by the parties, the relative value of the uses, their positions on the stream, and whether the pollution can easily be abated. Proof of these elements would seem to be required in addition to proving that the defendant caused the pollution in the first place.

This analysis leads to the conclusion that a polluter will not be liable for nuisance if: (1) he does not cause substantial harm to the plaintiff, regardless of priority; (2) he is a prior appropriator who has not significantly changed his use unless his use is minor in relation to the amount of water he is polluting and thus wasting; or (3) his use of the water is more valuable than that of the plaintiff, regardless of priority except that (a) a prior appropriator should abate the pollution if it is cheap and convenient for him to do so, while (b) a subsequent appropriator should make substantially more effort to abate the pollution.

Although I think that this formulation is generally correct, I think that it is oversimplified and inaccurate in several respects. First, I think that it may not have been appropriate to look to the *Restatement* which deals with riparian rights, for principles which are to be applied to appropriative law. The economic and policy considerations are not the same. Nor is the basic nature of an appropriative right the same as a riparian right. Second, this formulation still does not take into account the fact that a junior appropriator acquires a vested right in the condition of the stream at the time that he initiates his

man v. Smith, 62 N.M. 457, 463, 312 P.2d 103, 106-7 (1957), but that case involved an entirely different situation.

54. 7 F.2d at 585.

55. Restatement of Torts, ch. 41, "Invasions of Interests in the Private Use of Waters ('Riparian Rights')," at 313 (1939).

56. Gindler, *supra* note 15, ch. 13, especially § § 210 and 212.

right. Third, it places too much emphasis on the determination of the relative values of the users' purpose in diverting the water. In an extreme case like *Town of Antioch v. Williams Irrigation District*,⁵⁷ where the value of the senior use was insignificant in comparison to the value of the junior use and it would have been relatively easy and cheap for the senior to alleviate the problem by changing its point of diversion, such a balancing of economic values may have been appropriate. The holding in *Antioch* may also have been based on a theory of waste. The town diverted its water just above the point in the river where it began to be tainted by sea water. When the irrigation district began operating, the amount of water it diverted caused the sea water to penetrate further upstream and pollute Antioch's water supply. Thus, protection of the senior use would have effectively prevented any further development on the river; protection of an insignificant senior use would have wasted most of the rest of the volume of the river.⁵⁸ Looked at in this way, it is not unreasonable to require the senior to move its point of diversion a few miles upstream, especially since it would have cost Antioch less to do so than it cost to bring the suit against the irrigation district. Such a requirement would not seem to be a taking or a destruction of an existing right either. Finally, I think that Clark's analysis would lead to many subtle problems and distortions in the application of his principles to the diverse fact situations which might arise.

The New Mexico Supreme Court defined private nuisance in *Jellison v. Gleason*⁵⁹ as "a civil wrong based on a disturbance of rights in land." This same definition would also seem to apply to rights to the use of water but does not distinguish between the formulation in Clark and the one that I intend to use which is based more solidly in protecting existing rights to the use of water. Other New Mexico cases, particularly *Heine v. Reynolds*⁶⁰ and *State v. McLean*,⁶¹ seem to indicate that it is also the policy of the New Mexico courts and legislature to protect existing rights and that a balancing of the relative economic values of various uses or types of uses is not likely to occur, with two possible exceptions.⁶² First, there is the possibility

57. 188 Cal. 451, 205 P. 688 (1922).

58. See also *Mathers v. Texaco, Inc.*, 77 N.M. 239, 421 P.2d 771 (1966), where the court held that the right of a senior water appropriator in a closed, nonrechargeable underground basin was not impaired by the granting of further permits to appropriate water in the basin where the state engineer had rated the life of the basin at forty years pursuant to his statutory authority and the permits granted would not shorten the life of the basin to less than forty years.

59. 77 N.M. 445, 448, 423 P.2d 876, 877 (1967).

60. 69 N.M. 398, 367 P.2d 708 (1962).

61. 62 N.M. 264, 308 P.2d 983 (1957).

62. *Shelley*, *supra* note 2, at 497.

that municipalities may be treated more leniently.⁶³ Second, where the effect on an existing use is negligible, the courts might not recognize it as an impairment.⁶⁴

Although no private citizen seems to have ever brought a nuisance action specifically against agriculturally caused salinity, there are a number of cases in which farmers and stockraisers brought successful nuisance actions against oil companies for allowing salt water to pollute streams.⁶⁵ In a proper case, therefore, a court would have little trouble in applying general pollution and nuisance principles in a case of agriculturally caused salinity which unreasonably pollutes a stream and causes substantial injury to an existing downstream beneficial use of water.

ANSWERS TO THE HYPOTHETICALS

Hypo 1: A will win if he can prove that the water is polluted, the project intentionally caused the pollution, the pollution has destroyed his water right for its accustomed purpose, he was substantially harmed, and his use is not so insignificant in comparison with the project's that it should be disregarded.

A should have no problem proving that the stream is polluted under almost any definition of pollution. The project introduced a pollutant into the stream which, at least in part, was not a byproduct of its use of the water. In *Bunker Hill & Sullivan Mining & Concentrating Co. v. Polak*⁶⁶ and *Hill v. Standard Mining Co.*⁶⁷ the courts made a distinction between dumping waste materials into the water and pollution which was a byproduct of the defendant's legitimate use of the water. Using a stream to carry away waste and debris is pollution when it is not directly related to the beneficial use for which the water is diverted. Only when the pollution is a byproduct of the beneficial use will the court look to see if the pollution is reasonable.

The difficulty of proving that it was the project which caused the pollution is outside the scope of this discussion. For the purposes of these hypotheticals I am assuming that A can prove this element of his case.

It should not be difficult to prove that the project's actions were intentional since, if the groundwater was so saline that the project

63. See *State v. Crider*, 78 N.M. 213, 431 P.2d 45 (1967).

64. *City of Roswell v. Berry*, 80 N.M. 110, 452 P.2d 179 (1969).

65. Most of these cases are from Kansas and Oklahoma. See also *Love Petroleum Co. v. Jones*, 205 So.2d 274 (Miss. 1967), and *Duhon v. Buckley*, 161 So.2d 301 (La.App. 1964).

66. 7 F.2d 583 (9th Cir. 1925), *cert. denied*, 269 U.S. 581 (1925).

67. 12 Idaho 223, 85 P. 907 (1906).

had to get rid of it, it was virtually certain that it would damage any irrigators who were diverting water further downstream.

Again, A should have no difficulty in proving that he was substantially injured and that his water right has been destroyed for irrigation purposes.

The project's major argument in this case would undoubtedly be that A's use is minor or of little value in comparison with the continuing operation of an entire irrigation project. This argument would have to be based on either a balancing of the equities and conveniences or on the doctrine developed in *Town of Antioch v. Williams Irrigation District*⁶⁸ which may itself be an unarticulated application of the balancing doctrine. In balancing the equities and conveniences, a court of equity denies injunctive relief because not to do so would visit severe consequences on the defendant while being of slight benefit to the plaintiff.⁶⁹ This doctrine would seem to be inapplicable here because the resultant benefit to A would not be slight and the consequences for the project are not that severe. There are other methods of irrigation which could be economically used which would not cause the same salt problems for either A or the project.

The *Antioch* doctrine would not seem to apply here either for several reasons. Protection of A's use of water would not cause either a halt in further upstream development or a waste of the available water in the stream; it is only an unreasonable and wasteful use of water that is being halted if A wins. It is the project that is rendering the stream unusable, not A; this is contrary to the situation in *Antioch* where the defendant was making beneficial use of the water and the protection of the plaintiff's right would have wasted most of the stream flow. Finally, A does not seem to have any alternative source of water. If a supplemental well would serve A's purpose as well as a diversion of stream water, then it might be appropriate to apply the *Antioch* doctrine and require A to make an application to dig such a well.

It still seems wasteful of a public resource, though, to allow the project to continue polluting the stream. In a case such as this, a sound water management policy would seem to require that the project stop its pollution, either by treating or evaporating the drainage water or by changing its method of irrigation. After all, it was the project's lack of foresight and planning that caused the problem; why should the burden of the loss be shifted to A?

Hypo 1A: The outcome of this suit should be the same. Even

68. 188 Cal. 451, 205 P. 688 (1922).

69. Carlsbad Irrigation District v. Ford, 46 N.M. 335, 341, 128 P.2d 1047, 1051 (1942); Wright v. Best, 19 Cal.2d 368, 121 P.2d 702 (1942).

though A is junior to the project, A has a vested right in maintaining the quality of the stream as it was when he initiated his right to use water. Even a senior may be prohibited from changing his use of the stream if it would substantially injure a downstream junior.⁷⁰

Hypo 1B: This is a much more difficult situation for A. The first rule is that a subsequent appropriator must take a stream as he finds it.⁷¹ A found this stream polluted. A will not win unless he can convince a court that: (1) the project's practices are wasteful of a public resource,⁷² (2) the project should forfeit its use or be enjoined from continuing the waste, and (3) A is a proper party to bring such a suit. If A is adjudged to be a proper party to sue and if it is realistic to think that the water would be used further downstream (instead of drying up or being wasted to Texas or Arizona), then I think that A would have a reasonable chance of winning, especially in view of *State v. McLean*.⁷³

Hypo 1C: Here is where the precise meanings of "impairment" and "substantial harm" become important. A is still receiving his full entitlement of water, but he is able to make only half the use of it that he previously could. It is probably beyond argument that A would be able to "call the river" if he were only getting half of his quota of water. Since the quantity of water needed for irrigation is directly linked to its quality,⁷⁴ it would seem logical that A should have a legal cause of action for any unreasonable change in the quality of the water which caused an increase in the amount of water required to irrigate the same acreage. In view of the solicitude the New Mexico courts and legislature have shown for existing uses, as evidenced by *Heine v. Reynolds*⁷⁵ and New Mexico Statutes Annotated, § § 75-5-22, 75-5-23 and 75-11-7 (1953), it is likely that "impairment" and "substantial harm" would be defined to cover this situation. It is, of course, difficult to draw the line between a legally significant impairment and a *de minimis* impairment, but a 50 percent decrease in economic benefit from the use of water would not seem to be *de minimis*.

Hypo 2: The primary difference between this situation and Hypo

70. N.M. Stat. Ann. § § 75-5-22 and 75-5-23 (repl. 1968); *Farmers Highline Canal & Reservoir Co. v. City of Golden*, 129 Colo. 575, 272 P.2d 629 (1954); *Hill v. Standard Mining Co.*, 12 Idaho 223, 85 P. 907 (1906).

71. *Conrad v. Arrowhead Hot Springs Hotel Co.*, 103 Cal. 399, 37 P. 386 (1894).

72. *Suffolk Gold Mining and Milling Co. v. San Miguel Consol. Mining and Milling Co.*, 9 Colo. App. 407, 48 P. 828 (1897); *Wilmore v. Chain O'Mines*, 93 Colo. 319, 44 P.2d 1024 (1934).

73. 62 N.M. 264, 308 P.2d 983 (1957).

74. Hagan, *supra* note 2, at 1000-1001; Bower, *supra* note 4, at 215.

75. 69 N.M. 398, 367 P.2d 708 (1962).

1 is that here the pollution of the stream is a direct result of J's legitimate use of the water for irrigation, while in Hypo 1, the project was also pumping saline groundwater into the stream. In this situation, though, J is still polluting the river since his use of the water has had the effect of making it so saline that it has impaired a downstream use. As a result the court would undoubtedly render judgment in favor of B⁷⁶ unless it felt impelled to balance the equities and conveniences or apply the *Antioch* doctrine.⁷⁷ Whether or not the court would take this latter course would depend on whether B's use was insignificant compared to J's and whether B had an economically viable alternative source of water. The fact that there are alternative methods of irrigation available to J would tip the balance the other way. A real possibility in this situation would be permanent damages which would compensate B for the permanent loss of his water right.⁷⁸

Hypo 2A: The fact that B has a junior priority will probably be dispositive of the outcome of the suit since a junior appropriator takes the water as he finds it.⁷⁹ B's only hope would be to argue that J's use of the stream's water was unreasonable and wasteful.⁸⁰ Since J is using normal irrigation practices, however, the court would probably reject this argument.

Hypo 2B: The outcome of this suit would be the same as the outcome of Hypo 1C so long as the court did not balance the equities and conveniences or apply the *Antioch* doctrine in this hypo; it is more likely that the court would do so here since J's use of the water is legitimate and reasonable, aside from its polluting effect. If the court found that B was senior and that J's pollution had caused an economic loss to B of 50 percent of the productivity of B's land, it would probably find that B's water right had been legally impaired and that B had suffered substantial harm. Here again, permanent damages to compensate B for the loss of his water right might be the most appropriate remedy.

Hypo 3: This situation is very similar to *Town of Antioch v. Williams Irrigation District*,⁸¹ where the value of the senior use was insignificant in comparison to the value of the junior use and it

76. *Wright v. Best*, 19 Cal.2d 368, 121 P.2d 702 (1942); *Farmers Irrigation Company v. Game and Fish Commission*, 149 Colo. 318, 369 P.2d 557 (1962).

77. *Town of Antioch v. Williams Irrigation District*, 188 Cal. 452, 205 P. 688 (1922).

78. Gindler, *supra* note 15, § 218.2(C).

79. *Conrad v. Arrowhead Hot Springs Hotel Co.*, 103 Cal. 399, 37 P. 386 (1894).

80. *Suffolk Gold Mining and Milling Co. v. San Miguel Consol. Mining and Milling Co.*, 9 Colo. App. 407, 48 P. 828 (1897); *Wilmore v. Chain O'Mines*, 93 Colo. 319, 44 P.2d 1024 (1934).

81. 188 Cal. 452, 205 P. 688 (1922).

would have been relatively easy and cheap for the senior to alleviate the problem by changing its point of diversion. The rationale of this case would seem to be that a minor use of water, even though it is a property right, must give way to public welfare. This is also probably the rationale behind *Metropolitan Denver Sewage Disposal District No. 1 v. Farmers Reservoir and Irrigation Co.*⁸² In that case a new sewage plant was needed and the only feasible site was downstream of the existing plant. The minor private users of water who had depended on the return flow of the former plant had to give way to the greater public good.

Even if C could bear the staggering burden of proof against all the defendants, C would still lose. No court would enjoin all or even a substantial number of upstream uses to protect one minor downstream user. Permanent damages would seem to be a compromise remedy which would compensate C without placing an undue burden on the upstream users. It is surprising that the courts did not consider this alternative in the *Antioch* or *Denver* case. The fact that C had made such substantial expenditures would make permanent damages the most appealing alternative.

Hypo 3A: C would lose for the same reasons he lost in hypo 3. Permanent damages would be less likely here because his situation is not so pathetic as in hypo 3.

Hypo 3B: C does not even deserve sympathy in this case. He knew or should have known the water was unusable. His loss is his own fault. This is certainly a case for the application of the rule that the subsequent appropriator must take the water in a stream as he finds it.

CONCLUSION

A private right owner who uses his water for irrigation and whose right is damaged or destroyed by salt pollution from irrigation sources does have legal remedies that he can pursue in the courts with a reasonable hope of success in certain circumstances. He must single out one or a few polluters who are causing a significant impairment of his water right. He will only be successful, though, if the polluters (1) have a junior priority or (2) began their polluting use of the water after the initiation of the complainant's use. The complainant may also be successful if he can persuade the court that the polluter's use of the water is wasteful or unreasonable, regardless of priority or when the pollution began.

If the plaintiff has to join more than a few defendants, either the

82. 179 Colo. 36, 499 P.2d 1190 (1972).

suit will become prohibitively expensive or he will risk having the court find that it is not in the public interest to protect his minor use of water.

An appropriator of water has a right to a certain quantity and quality of water, depending on stream conditions and prior uses at the time he initiated his own use. The satisfaction of having a legally protectable right will not irrigate crops, however, when the need is urgent, the defendants are myriad, and the burden of proof is staggering.

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