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Sinking Fortunes: Texas Remedies for Victims of Land Subsidence

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NOTES

SINKING FORTUNES: TEXAS REMEDIES FOR VICTIMS OF LAND SUBSIDENCE

WATER LAW

GROUNDWATER–LAND SUBSIDENCE: The Texas Supreme Court holds that the English rule of absolute ownership insulates landowners from liability in nuisance and negligence for causing subsidence of nearby land by pumping groundwater, but prospectively recognizes a cause of action in negligence for future subsidence cases. *Friendswood Development Co. v. Smith-Southwest Industries*, 576 S.W.2d 21 (Tex. 1978).

BACKGROUND

Harris and Galveston Counties lie on the Northwest coast of the Gulf of Mexico in Texas. They embrace an area of intense economic development, including the cities of Houston and Galveston, as well as the Johnson Space Center. But a major problem threatens the region's growth; almost the entire surface area of the two counties is sinking.[1] This severe land subsidence results from extensive withdrawal of groundwater from the two aquifers underlying the region.[2] According to 1973 measurements, subsidence of one foot or more in the region had spread from a total area of 350 square miles to 2,500 square miles in nineteen years.[3] In some areas, land had settled seven-and-one-half feet in thirty years.[4] As a consequence, property along the coast of Galveston Bay has dropped below sea level and is now subject to ocean floods.[5] In an attempt to prevent additional property loss, the Texas legislature in 1975 established the Harris-Galveston Coastal Subsidence District and created a board to oversee groundwater withdrawals by implementing a system of permits, meters and regulations.[6] The act provided for broad judicial discretion in enforcement of board rules.[7] But no remedy was provided

1. R. K. Gabrysch & C. W. Bonnet, Land Surface Subsidence in the Houston-Galveston Region, Texas, 3, 13 (Tex. Water Dev. Bd. Report No. 188, 1975), *cited in* Friendswood Dev. Co. v. Smith-Southwest Indus., 576 S.W.2d 21, 23 (Tex. 1978).
2. R. K. Gabrysch, *supra* note 1, at 1.
3. *Id.*
4. *Id.* at 3, 13.
5. Friendswood Dev. Co. v. Smith-Southwest Indus., 576 S.W.2d 21, 33 (Tex. 1978).
6. Harris-Galveston Coastal Subsidence Dist., 1975 Tex. Gen. Laws ch. 284.
7. TEX. WATER CODE ANN, tit. § 52.103 (Vernon 1972).

for owners of property already damaged by unregulated groundwater withdrawals. Fashioning a means of compensation for owners of property damaged by past or future subsidence was left to the courts.

THE *FRIENDSWOOD* CASE

A. Facts

It is in this context that the Texas Supreme Court decided *Friendswood Development Co. v. Smith-Southwest Industries.*[8] Plaintiff Smith-Southwest and owners of neighboring commercial and residential property brought a class action suit against Friendswood and its parent Exxon Corp., seeking damages for subsidence of their lands located along the west bank of Galveston Bay.[9] Between 1964 and 1973, Friendswood and Exxon had been pumping groundwater from their own nearby inland property and selling it to occupants of their industrial park in Bayport, Texas.[10] Before Friendswood began pumping in 1964, plaintiffs' lands were seven feet above mean sea level. By 1974, subsidence had left their lands either submerged or periodically flooded by the sea.[11] Plaintiffs had expected some subsidence even before Friendswood began pumping.[12] But subsequent engineering reports indicated not only that defendants had greatly compounded the problem, but also that Friendswood had anticipated the aggravation and could have avoided it by using surface water or locating wells properly.[13]

The Smith-Southwest complaint alleged that Friendswood's excessive withdrawals gave rise to causes of action for 1) nuisance; 2) negligence; 3) wrongful diversion of surface water across plaintiffs' property; and 4) unconstitutional taking of property without compensation and conversion of property.[14] In support of a motion for summary judgment, defendants raised the point that a Texas landowner had an absolute right to withdraw all the groundwater that can be captured on his own land.[15] Defendants reasoned that be-

8. 576 S.W.2d 21 (Tex. 1978).
9. *Id.* at 21, 22.
10. *Id.* at 22.
11. *Id.* at 33.
12. *Id.* at 23.
13. *Id.*
14. Smith-Southwest Indus. v. Friendswood Dev. Co., 546 S.W.2d 890,893 (Tex. Civ. App. 1977), *rev'd,* 576 S.W.2d 21 (Tex. 1978).
15. 546 S.W.2d at 893. The Texas courts had held in several cases that a landowner has an absolute right to pump all the groundwater he can from his own land, free from liability for 1) dewatering neighbors' wells, Houston & T.C. Ry. v. East, 98 Tex. 146, 81 S.W. 279

cause the absolute right insulates against liability for water drawn from beneath adjacent land, that same right protects against liability for subsidence of adjacent land as well.[16] The trial court granted the motion, but the Court of Civil Appeals reversed and remanded.[17] Addressing only the nuisance and negligence theories of the case, the Court of Civil Appeals applied both the Texas water ownership rule of capture and "the well-settled Texas principle of law that imposes upon all persons a duty to use due care in the use of their property or conduct of their business to avoid injury to others."[18] The court of appeals concluded that the absolute right to withdraw all the groundwater that can be captured on one's own land ordinarily would bar liability for subsidence, but negligent withdrawal would trigger operation of the due care principle and liability would be imposed.[19] On appeal, the Texas Supreme Court affirmed the trial court's grant of summary judgment in favor of defendants, and reversed the Court of Civil Appeals on grounds that a negligence theory imposing a duty to avoid injury to adjacent lands is incompatible with the Texas law of absolute groundwater ownership.[20] The supreme court then contradicted itself, however, holding that future subsidence complaints founded on negligence would be entertained and a duty of due care would be imposed.[21]

The case presented the Texas Supreme Court for the first time with the issue of whether and when liability should be imposed for adjacent land subsidence caused by groundwater withdrawals. Two legal questions required resolution. First, what kinds of rights conflict in a subsidence dispute? Such a case can be viewed as a clash of the parties' respective rights to the groundwater itself, or it can be viewed as a conflict between the parties' separate surface and water rights. Second, if a subsidence dispute should turn only on rights to the groundwater itself, can those rights be limited by the law of negligence, consistent with precedent?

(1904); 2) transportation and sale of water off the land, City of Corpus Christi v. Pleasonton, 154 Tex. 289, 276 S.W.2d 798 (1955); and 3) interfering with nearby springs, Pecos County Water Control and Improvement Dist. No. 1 v. Williams, 271 S.W.2d 503 (Tex. Civ. App. 1954).

16. 546 S.W.2d at 893.

17. *Id.* at 891.

18. *Id.* at 897. The duty of due care was asserted and explained in King v. Columbian Carbon Coal Co., 152 F.2d 636 (5th Cir. 1945) (applying Texas law); Storey v. Central Hide and Rendering Co., 148 Tex. 509, 226 S.W.2d 615 (1950); Turner v. Big Lake Oil Co., 128 Tex. 155, 96 S.W.2d 221 (1936); Gulf, C. & S.F. Ry. v. Oakes, 94 Tex. 155, 58 S.W. 999 (1900).

19. 546 S.W.2d at 897.

20. 576 S.W.2d at 29.

21. *Id.* at 31.

B. Application of Groundwater Ownership Law to Subsidence

Plaintiffs asserted that the law of groundwater ownership alone is not determinative of subsidence cases. They urged the court to approach the problem by applying the general law of nuisance and negligence. Plaintiffs argued that:

> [T]he type of nuisance here involved is a nuisance in fact, which consists of an activity or condition that, while lawful, becomes a nuisance by reason of the circumstances and surroundings. Further, that the doctrine of liability predicated upon the maintenance of a nuisance represents the recognition that all landowners . . . have a basic right to the peaceful use and enjoyment of their own property and that such right must be viewed in context with the rights of the surrounding landowners; therefore, the asserted right to all the ground water they can extract must be compared to the rights of the appellant landowners, not to the water itself, but to the reasonable use and enjoyment of their surface estates.
>
> As to . . . negligence . . . this court is bound by the extensive Texas case law that a property owner must use his own property so as not to injure that of another and that land ownership itself creates a duty to use reasonable care in the exercise of property rights incident to such ownership.[22]

In general, the other jurisdictions that have considered disputes over subsidence caused by groundwater pumping have decided the cases on the basis of water ownership theories rather than nuisance or negligence doctrines. The results, then, have turned on the theory of groundwater ownership followed by the particular jurisdiction.[23] The two general theories of groundwater ownership are the American rule, also known as the reasonable use rule, and the English rule of absolute ownership.

The American rule, first applied in *Bassett v. Salisbury Manufacturing Co.*,[24] limits the right to groundwater withdrawal to an amount necessary for reasonable use on the land from which it is drawn. Adjacent landowners have equal and correlative rights to the groundwater they can withdraw for reasonable use on their respective properties.[25] The rule is an extension of the maxim *"sic utere*

22. Smith-Southwest Indus. v. Friendswood Dev. Co., 546 S.W.2d at 893-94.

23. *See, e.g.*, State v. Michels Pipe Line Co., 63 Wis.2d 278, 217 N.W.2d 339 (1974); Finley v. Teeter-Stone, 251 Md. 428, 248 A.2d 106 (Ct. App. 1968); Continental Jewell Filtration Co. v. Jones, 37 App. D.C. 511 (D.C. Cir. 1911); Elster v. City of Springfield, 30 N.E. 274 (Ohio 1892).

24. 43 N.H. 569, 82 Am. Dec. 179 (1862).

25. *Id.*

tuo ut alienum non laedas."[26] Under the American rule, application of this doctrine to avoid injury to others combined with recognition of neighbors' correlative rights to groundwater leads to imposition of liability for dewatering caused by negligent (unreasonable) withdrawal.[27]

Applied to subsidence cases, then, the American rule could result in liability for negligence when the water is withdrawn for an unreasonable use or in an unreasonable manner. While an action for negligence flows logically from the rule's theoretical underpinning, an action for nuisance does not. Invasion of a right must be found to support a nuisance cause. But the American ownership rule cannot support such a finding because it affords no rights to groundwater other than freedom from neighbors' unreasonable withdrawal.[28] Negligence, then, is the threshold of the rule's protection. The rule has been extended, however, to impose liability for interference with another's groundwater use if the harm caused is unreasonable, regardless of how reasonable the use or method of withdrawal might be.[29] Whether the harm is unreasonable or not is determined by balancing all of the surrounding circumstances, including costs and benefits.[30] Although the principle has never been applied to a reported subsidence case, its focus on balancing rights would seem to permit a finding of invasion of rights to support a subsidence action premised on nuisance. Thus, under the American rule, ownership rights are subject to the rights of others and the limits of negligence and nuisance may flow directly from the rule itself.

On the other hand, courts in jurisdictions following the English rule usually view the doctrines of nuisance and negligence as logically inconsistent with their theory of groundwater ownership. The English rule was first applied to the issue of liability for dewatering a neighbor's wells in the British case *Acton v. Blundell.*[31] The court said:

> [T]he person who owns the surface may dig therein and apply all that is there found to his own purposes at his free will and pleasure; and . . . if in the exercise of such right, he intercepts or drains off the water collected from underground springs in his neighbour's well,

26. Use your property so as not to injure others. *See* Finley v. Teeter-Stone, 251 Md. 428, 434, 248 A.2d 106, 112 (Ct. App. 1968).

27. *Id.*

28. State v. Michels Pipe Line Co., 63 Wis.2d 278, 290, 217 N.W.2d 339, 351 (1971).

29. *Id.* (citing RESTATEMENT (SECOND) OF TORTS §858A (Tent. Draft No. 17, 1971)).

30. *Id.*

31. 152 Eng. Rep. 1223 (exch. Ch. 1843).

> this inconvenience to his neighbour falls within the description *damnum absque injuria*,[32] which cannot become the ground of an action.[33]

Although this language indicates that the rule need only apply to disputes over the ownership of the groundwater itself and not to other types of dewatering injury, the British courts have extended the rule to subsidence cases as well. In *Langbrook Properties v. Surrey County Council*,[34] the absolute right to groundwater withdrawal was interpreted to be so absolute as to exclude the duty to avoid any injury to others caused by dewatering,[35] thus leaving adjacent landowners without any rights at all with respect to groundwater. American jurisdictions have reached the same result.[36]

C. *The Majority Opinion*

Texas adopted the English rule at a time when the course of groundwater was believed so "secret, occult and concealed" as to be outside the scope of judicial comprehension and review, other than application of the might is right approach of the rule of capture.[37] In the past, however, the rule had been invoked in Texas only to dismiss claims for interference with use of the groundwater itself; it had never been applied to a reported subsidence or other consequential damage case. But because of the subsidence precedents in other English rule jurisdictions, the Texas court in *Friendswood* was likely to dismiss a cause in negligence, let alone a complaint predicated on nuisance, unless plaintiffs could persuade the court to approach he problem as a conflict between different surface and water rights.

The supreme court refused to take the latter approach, as urged by the Smith-Southwest plaintiffs, and decided the case instead on the basis of groundwater ownership rules alone. The majority viewed plaintiffs' exhortations of the duty to use property to avoid injury to others and the right to peaceful enjoyment as a "contention that the reasonable use doctrine should apply to groundwater as it does to other real property."[38] Writing for the majority, Justice Daniel reasoned that Texas cases applying the rules of nuisance and negligence involved correlative rights (and implicitly interrelating duties),

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32. Damage without legal injury (footnote added).
33. 152 Eng. Rep. at 1235 (emphasis added).
34. [1969] 3 All. E.R. 1424 (Ch.).
35. *Id.* at 1439, 1440.
36. *E.g.*, Continental Jewell Filtration Co. v. Jones, 37 App. D.C. 511 (D.C. Cir. 1911); Elster v. City of Springfield, 30 N.E. 274 (Ohio 1892).
37. Houston & T.C. Ry. v. East, 98 Tex. 146, 148, 815 S.W. 279, 281 (1904).
38. 576 S.W.2d at 24.

or legal versus equitable rights.[39] Because groundwater rights are correlative only under the American rule, he concluded that plaintiffs were actually arguing for adoption of that rule.[40] The court seemed to assume that because the American rule rests doctrinally on a duty to avoid injury to others, an application of a duty to avoid subsidence necessarily would rest doctrinally on the American rule, and therefore would amount to a purge of the English rule from Texas law.

Precedent supported Justice Daniel's position. He noted that the English court in the *Langbrook* case had expressly held that neither the duty of due care nor the concept of legal injury for subsidence caused by groundwater withdrawal can be recognized under the English rule.[41] The Texas court also relied on the Restatement (Second) of Torts manifestation of the same rule, despite its acknowledgement that the 1969 revision of the Restatement would impose strict liability for dewatering-caused subsidence.[42]

Contrary to the Texas court's assumption, logic does not dictate the traditional result under the English rule. While it is true that an action for subsidence automatically flows from the duty of care under the American rule, subsidence cases decided on the basis of that rule may reflect merely a convenient application of the theoretical underpinning of the rule rather than an expression that the duty and the rule are inseparable. Under the English rule, a limited duty to avoid interference with another's surface rights can be imposed, while the absolute right to withdraw groundwater can be maintained free of a duty to avoid interference with neighbors' groundwater withdrawals.

This distinction was not recognized by the Texas court, although plaintiffs attempted to distinguish interference with their right to peaceful enjoyment of the land from interference with their right to use groundwater. The majority rejected the argument that defendants' groundwater withdrawal was an interference with plaintiffs' right to subjacent support, and held that no such right to the support of groundwater exists. The court reasoned that the right to subjacent support arises only in cases dealing with solid or semi-solid support,

39. *Id.* (citing Storey v. Central Hide and Rendering Co., 148 Tex. 509, 226 S.W.2d 615 (1950) (dealing with air pollution); Turner v. Big Lake Oil Co., 128 Tex. 155, 96 S.W.2d 221 (1936) (dealing with surface water pollution); Gulf, C. & S.F. Ry. v. Oakes, 94 Tex. 155, 58 S.W. 999 (1900) (dealing with spread of weeds planted by defendants)).

40. 576 S.W.2d at 24.

41. *Id.* at 28.

42. *Id.* at 27, 28 (citing RESTATEMENT (SECOND) OF TORTS §818 (1939), noting the contrary RESTATEMENT (SECOND) OF TORTS §818 (Tent. Draft Proposal No. 15, 1969)).

not pure liquid support.[43] Because a landowner under the English rule has no right to the groundwater beneath his land when someone else captures it, the court could not conceive of a right to support by that groundwater.

The majority opinion also summarily dismissed the plaintiffs' analogies to the law of oil and gas. In Texas, landowners have a right to absolute capture of the oil and gas under their land, but are liable for negligently damaging the surface or the fugacious minerals of adjacent lands.[44] The coexistence of the rule of capture and liability for negligence was distinguished by the *Friendswood* court on grounds that the Texas legislature had changed public policy specifically regarding oil and gas law.[45] The court reasoned that the judicial compromise in oil and gas cases was required by enactment of regulations against waste and creation of correlative rights to those minerals.[46]

The compromise in oil and gas law, however, provided the *Friendswood* court with a convenient, if unnecessary, justification for its own compromise between strict adherence to the English rule and promotion of responsible groundwater management. The Texas Supreme Court felt itself bound by stare decisis to extend absolute ownership rights, effectively insulating defendants from tort liability since non-liability was the established property law rule. Because of public reliance on property rules, the court concluded that strict adherence to precedent was all-important under Texas law.[47] Thus, plaintiffs were denied relief for past groundwater withdrawals. The court stated, however, that new public policy considerations were presented by legislative enactment of groundwater regulations.[48] The legislature expressly intended to prevent waste and subsidence by passage of the groundwater acts.[49] The *Friendswood* court inferred a further legislative intent to modify the English rule and

43. 576 S.W.2d at 27 (citing RESTATEMENT (SECOND) OF TORTS §820 (1939)).

44. The majority did not cite any subjacent support cases, but the dissenting justices did. *See* note 54 *infra.*

44. Gregg v. Delhi-Taylor Oil Corp., 162 Tex. 26, 344 S.W.2d 411 (1961), injunction granted to prevent damage to adjacent subsurface geology threatened by withdrawal process; Eliff v. Texon Drilling Co., 146 Tex. 575, 210 S.W.2d 558 (1948), liability imposed for negligence withdrawal that caused damage to adjacent surface and minerals.

45. 576 S.W.2d at 26. By act of the legislature, the Tex. R.R. Comm'n. had been authorized to make rules to prevent waste of and to protect correlative rights to oil and gas in place. TEX. STAT. ANN. ART §6008 (Vernon 1962) (current version at TEX. NAT. RES. CODE ANN. §86.001-.004 (Vernon 1972)).

46. 576 S.W.2d at 26.

47. *Id.* at 30, 31.

48. *Id.* at 29, 30.

49. TEX. WATER CODE ANN. §52.117 (Vernon 1972).

followed suit.[50] Persuaded by the statute and the uniquely unfair tort immunity from subsidence liability, the court prospectively recognized a cause of action for subsidence caused by negligent groundwater withdrawal.[51]

D. The Dissent

The majority decision was criticized by dissenting Justice Pope, joined by Justice Johnson, for unnecessarily resting on absolute ownership rules. According to the dissent, the issue in the case was plaintiffs' right to subjacent support, not their ownership of the groundwater itself, to which the English rule would apply.[52]

The dissenting justices were persuaded by plaintiffs' analogies to cases in which tort liability was imposed for causing subsidence by excavation, mining activity, or oil and gas operations. Justice Pope contended that the majority should have focused on the rights to support in those cases, rather than on the means of interference with those rights. He wrote:

> It is no more logical to say that this is a case concerning the right to groundwater than it would be correct in a case in which an adjoining landowner removed lateral support by a caterpillar to say that the case would be governed by the law of caterpillars.[53]

Citing cases from several other jurisdictions, the dissent concluded that landowners have an absolute right to subjacent groundwater support.[54] One case cited was directly on point: the Supreme Court of Massachusetts, an absolute ownership state, had allowed a cause of action for subsidence caused by negligent groundwater pumping in *Gamer v. Town of Milton.*[55] The *Gamer* court reasoned that such

50. 576 S.W.2d at 29, 30.

51. 576 S.W.2d at 30. Courts may make such prospective rulings when changing or adding to an area of law on which the conduct of public business relies, in order to avoid disrupting the status quo. Ordinarily, a court overruling precedent or recognizing a new area of liability will do so retroactively and for purposes of the case before it. This is true of tort cases, for example, where reliance on law generally would have had no effect on the conduct that gave rise to the litigation. But when considering property cases or commercial transactions covered by statute, for example, where reliance on law generally does affect particular conduct, courts may establish a new rule for future cases only. The refusal to apply the new rule retroactively or to the case at bar is based on a policy of protecting the litigants' justifiable and reasonable expectations and public stability. *See, e.g.,* Klocke v. Klocke, 276 Mo. 572, 208 S.W. 825 (1919); Currier, *Time and Change in Judge Made Law; Prospective Overruling,* 51 VA. L. REV. 201, 242-43 (1965).

52. 576 S.W.2d at 32 (Pope, J., dissenting).

53. *Id.* at 31.

54. *Id.* at 31, 32. *E.g.,* N.Y. Central Ry. v. Marinucci Bros. & Co., 337 Mass. 469, 149 N.E.2d 680 (1958); Farnandis v. Great Northern Ry., 41 Wash. 486, 84 P. 18 (1906); Cabot v. Kingman, 166 Mass. 403, 44 N.E. 344 (1896).

55. 346 Mass. 617, 195 N.E.2d 65 (1963).

liability stemmed from he plaintiffs' rights in land, and their rights to groundwater were not at issue.[56]

Justice Pope found similar reasoning in Texas oil and gas cases. The imposition of liability for damage to subsurface geology in oil and gas cases is, according to the *Friendswood* dissenting opinion, indistinguishable from liability in subsidence cases. In *Gregg v. Delhi-Taylor Oil Corp.*,[57] an injunction was issued against a landowner who was using hydraulic pressure on his own land to free gas for capture, because the operation would have damaged adjacent subsurface geology. Justice Pope analogized: "If one may not use pressure that alters the geologic status of one's subsurface estate, how can we approve a process which reduces the pressure and which more grievously alters the subsurface estate?"[58] In an earlier case involving hydrocarbons, the Texas court had also held that the rule of capture, derived from groundwater law, did not provide immunity for causing damages to adjacent lands by negligent withdrawal.[59] Of that case, Justice Pope commented: "Under our prior holdings compared with today's, one who mines for oil may not destroy his neighbor's subjacent geology; but the right to pump water, we inconsistently say, is the right to destroy the subsurface geology, the subjacent support and even the surface of the land."[60]

The dissent noted a further inconsistency between the majority opinion and the results in mineral cases. In Texas, the holder of the dominant mineral estate is liable for damage to the servient surface estate.[61] Therefore, the dissenting opinion argued, if a mere servient estate is protected from interference by a dominant estate, an absolute right to subjacent support surely must be protected from interference by groundwater withdrawal as well.[62]

The dissent was also opposed to the majority's reliance on stare decisis. *Friendswood,* in the dissenters' view, was a case of first impression because the prior cases turning on the absolute ownership rule were disputes over ownership of the groundwater itself, not damage claims for subsidence.[63] *Friendswood,* therefore, was not controlled by precedent. Justice Pope also disagreed with the majority's inference of legislative modification of the English rule.[64] Since

56. *Id.* at 620-21, 195 N.E.2d at 67.
57. 162 Tex. 26, 344 S.W.2d 411 (1961).
58. 576 S.W.2d at 32 (Pope, J., dissenting).
59. Elliff v. Texon Drilling Co., 146 Tex. 575, 210 S.W.2d 558 (1948).
60. 576 S.W.2d at 33 (Pope, J., dissenting).
61. Getty Oil Co. v. Jones, 470 S.W.2d 618 (Tex. 1971).
62. 576 S.W.2d at 33 (Pope, J., dissenting).
63. *Id.* at 34.
64. *Id.*

established case law did not govern the case and the legislature had not made any reference to tort liability for subsidence, and certainly had not dictated a change in the English rule, the dissent concluded that a prospective ruling was not required.[65]

Justices Pope and Johnson would have allowed a cause of action founded on nuisance, negligence or recklessness. They reasoned that defendants had invaded plaintiffs' rights to subjacent support and had violated the duty to use due care to avoid injury to others' property.[66] Under the law of negligence, plaintiffs would have to show that groundwater was withdrawn without due care to prevent subsidence.[67] But if subsidence occurred in spite of precautions, redress under the law of negligence would not be available. For this reason, the dissent suggested that an action for nuisance is a necessary alternative for damaged property owners.[68] A nuisance claim offers a remedy for violation of plaintiffs' rights to enjoyment of their land even though defendants have not breached a duty of due care. The competing rights to support and to groundwater capture would be balanced with regard to surrounding circumstances. Such a balancing process would include a comparison of the gravity of the harm caused and the utility of the groundwater user's conduct.[69] An economic analysis would distribute the risks and costs of groundwater use more evenly.

CONCLUSION

The majority's holding in *Friendswood* does permit some compensation for subsidence grievances. Before the decision, a remedy for subsidence was granted only after a showing that groundwater withdrawals were willfully wasteful or malicious.[70] Now, a possible action in negligence has further constrained the previously unlimited right to groundwater in Texas. The types of facts that future successful plaintiffs will have to prove can only be inferred from the *Friendswood* decision. The court never specified the elements of negligent withdrawal, other than stating that each landowner "has a duty to produce water from his land in a manner that will not negligently damage or destroy the lands of others."[71] Because the *Friendswood* court imposed the duty in order to enforce the policies of the new

65. *Id.*
66. *Id.* at 33-34.
67. *Id.* at 30 (majority opinion).
68. *Id.* at 34 (Pope, J., dissenting).
69. *Id.* at 34-35.
70. *Id.* at 26 (majority opinion).
71. *Id.* at 30.

groundwater legislation, compliance with the applicable regulations, may be adopted as the standard of care for subsidence cases.

However, if the groundwater regulations set the standard of due care for subsidence, compliance with such regulations may exonerate groundwater users who cause damage in spite of conforming operations.[72] Their use of the water may be of low economic value, while the resulting subsidence may render much more valuable land nearly worthless. Victims of avoidable subsidence will be without a remedy. The costs of all past and some future subsidence damage will be satisfied from the pockets of individual landowners. Industries that pump groundwater should at least share those costs.

Theoretically, the market system channels the water resources to their most cost-efficient use because the "most valuable use will buy out the less valuable use."[73] Under the English rule, this is true where two or more water uses compete, but it is not true where land and water uses compete. For example, if a new factory's groundwater withdrawals cause a nearby farmer's well to go dry, the farmer can restore his water supply by either digging a deeper well or buying the water itself from the factory in question. But if the factory's groundwater withdrawal ruins the farmer's land through subsidence, the farmer cannot restore his land use by investing in a well or purchasing water.

As the *Friendswood* dissent suggested, the rights-balancing process of nuisance law would weigh the severity of the harm caused against the utility of the water use. By balancing the economic factors in each case, the courts could prevent costly land from being lost at the expense of a cheap water supply. The more valuable use constructively "buys out" the less valuable use, because groundwater users faced with potential nuisance suits will make certain that the water is worth a property damage judgment before they risk causing subsidence. The existence of a right to subjacent groundwater support under the law of nuisance, therefore, would protect efficient resource allocation by spreading costs according to the risks taken. But under the law of *Friendswood*, "defendants may pump the plaintiffs' lands to the bottom of Galveston Bay."[74]

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72. Compliance with regulations and operations conducted under a permit may bar a finding of negligence as a matter of law in Texas. *Cf.* R.R. Comm'n. v. Manziel, 360 S.W.2d 560, 566-68 (Tex. 1962).

73. C. MEYERS & A. TARLOCK, WATER RESOURCES MANAGEMENT: A COURSEBOOK IN LAW AND PUBLIC POLICY 579 (1971) (citing Coase, *The Problem of Social Cost*, 3 J. L. & ECON. 1 (1960)).

74. 576 S.W.2d at 33 (Pope, J., dissenting).