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Mary Kathleen Martin University of Richmond

Laurie L. Riddles University of Richmond

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NOTE

COAL SLURRY PIPELINE

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I. INTRODUCTION

Coal, a primary energy source,¹ is presently fueling the fires of debate in Virginia. The controversy has arisen over a plan developed by private investors to construct a coal slurry pipeline.² The pipeline, as proposed,

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^{1.} More than 50% of the electricity produced in the United States is generated from coal. H.R. REP. No. 64, pt. 1, 98th Cong., 1st Sess. 8 (1983).

^{2.} For discussions of the diverse issues related to coal slurry pipelines, see generally Johnson & Schneider, Coal Slurry Pipelines: An Economic and Political Dilemma, 48 I.C.C. PRAC. J. 24 (1980); Webber, Coal Slurry Pipelines Are Ready, Willing, and Unable to Get There, 11 ST. MARY'S L.J. 765 (1980); Comment, Coal Slurry Pipelines and Railroad Crossings: Court Decisions Favor the Pipeline Sponsors, 18 Hous. L. REV. 1075 (1981) [hereinaf-

would transport between five and twenty-five million tons of coal annually³ from southwest Virginia to the Tidewater area.⁴ The coal would be pulverized and combined in a fifty percent mixture with water. Once the coal reaches its destination, the water would be extracted by centrifuge, leaving the coal ready for use.⁵

Two legal obstacles have been raised to the development of such a pipeline. The first involves the granting of eminent domain powers to the slurry pipeline company. The second involves possible impairment of existing water rights. This note will discuss both of these aspects of the coal slurry debate.

Most domestic coal is transported by rail at noncompetitive rates;⁶ it is considered the cream of the railroads' business.⁷ Proponents see coal slurry pipelines as an innovative alternative to skyrocketing rail freight costs, and the experiences of the two coal pipelines which have operated successfully in the United States would seem to substantiate this claim.⁸ Moreover, slurry advocates contend that breaking the railroads' monop-

ter cited as Comment, Coal Slurry and Railroad Crossings]; Comment, Do State Restrictions on Water Use by Slurry Pipelines Violate the Commerce Clause?, 53 U. COLO. L. REV. 655 (1982) [hereinafter cited as Comment, State Restrictions].

3. K. Drummond, Geologist for Norfolk and Western Railway, Remarks to the Virginia Council on the Environment 2 (Nov. 2, 1981) (unpublished manuscript).

4. The three favored alternative routes are: (1) Grundy to Portsmouth, (2) Big Stone Gap to Portsmouth, and (3) Pound to Portsmouth. See O. Yucel, Coal Slurry Pipelines in Virginia; A Preliminary Study 1-3 (Oct. 8, 1981) (available through the Virginia Center for Coal and Energy Research, Virginia Polytechnic Institute and State University, Blacksburg, Virginia).

5. Comment, Coal Slurry Pipelines: A Transportation Alternative for North Dakota Coal?, 53 N.D.L. Rev. 449, 450 (1977).

6. H.R. REP. No. 64, *supra* note 1, at 13. Deregulation of rail rates under the Staggers Act essentially allows railroad companies to use their own discretion in setting shipping charges. A shipper who complains about rail rates must demonstrate that the rates exceed the amount it would cost him to build his own railroad for his exclusive use.

7. Comment, An Analysis of Technical and Legal Issues Raised by the Development of Coal Slurry Pipelines, 13 Hous. L. REV. 528, 537 (1976).

8. The 108-mile Ohio pipeline, built in 1957 in response to high railroad rates, was deactivated in 1963 when the advent of the unit train made coal transportation by rail more economical than by pipeline. In 1957 the railroad rate increased from \$2.63 to \$3.47 per ton; by 1963, the rate had been reduced to \$1.88 per ton. GOVERNOR'S ENERGY ADVISORY COUNCIL, STATE OF TEXAS, COAL AND LIGNITE: MINING, TRANSFORTATION, AND UTILIZATION NEEDS FOR TEXAS, REP. No. 77-003, at 81 (1977), *cited in* Webber, *supra* note 2, at 766 n.9. The typical unit train consists of six locomotives pulling approximately 100 permanently-coupled hopper cars which are equipped with rotary couplers which permit emptying without uncoupling. By shuttling continuously between the coal producing area and the shippers' coal terminal, a unit train can haul coal for 40% less than conventional rail carriage. Webber, *supra* note 2, at 768-69. In contrast, the 273-mile Black Mesa pipeline, built in 1970 by the Southern Pacific Railroad because the rugged Arizona terrain prevented use of the unit train, continues to operate with relatively few problems. Johnson & Schneider, *supra* note 2, at 29.

oly on coal transportation will further stimulate the coal industry⁹ and lower the rates consumers pay for electricity.¹⁰ Opponents argue that a coal slurry pipeline would cripple recent efforts to revitalize the railroad industry.¹¹

Since the most vehement opposition to coal pipelines comes from the railroads that own or control the rights of way through which the pipelines must pass, supporters advocate granting eminent domain powers to coal pipeline companies. At least ten states have such statutes,¹² and similar legislation was introduced in the 98th Congress¹³ and in both the 1983 and the 1984 Virginia General Assembly.¹⁴ The railroad industry argues that slurry companies should not have eminent domain powers because the operation of the pipelines will serve private rather than public

12. See, e.g., FLA. STAT. § 361.08 (Supp. 1982); LA. REV. STAT. ANN. § 30:721-24 (West Supp. 1982); MONT. CODE ANN. §§ 69-13-101 to -104 (1981); N.C. GEN. STAT. § 62-190 (1982); N.D. CENT. CODE §§ 49-19-01, 49-19-12 (1978); OHIO REV. CODE ANN. § 1723.01 (Baldwin 1979); OKLA. STAT. tit. 27, §§ 7.1-.11 (Supp. 1982); TEX. NAT. RES. CODE ANN. §§ 111.301-.305 (Vernon 1978); UTAH CODE ANN. § 78-34-1 (1977); W. VA. CODE § 54-1-2 (1979).

13. See S. 267, 98th Cong., 1st Sess. (1983) and H.R. 1010, 98th Cong., 1st Sess. (1983). H.R. 1010 was defeated by a 182-235 vote on September 27, 1983. House Decisively Rejects Coal Slurry Bill, 42 CONG. Q. WKLY. REP. 2034 (1983). If the federal legislation had passed, it might have preempted Virginia's existing ban on eminent domain for coal pipelines as set out in VA. CODE ANN. § 56-49 (Repl. Vol. 1981). The amended Senate version of the bill would not have preempted state laws unless those laws discriminated against slurry pipelines. Rothman, Public Works Panel Approves Coal Slurry Bill, 41 CONG. Q. WKLY. REP. 1173 (1983).

14. In response to the proposed construction of a 400-mile pipeline from Southwest Virginia to Hampton Roads, two bills were introduced in the 1983 General Assembly to give coal pipelines eminent domain powers. H.B. 262, 1983 Va. Gen. Assem. would have established the Virginia Coal Pipeline Act, giving coal slurry pipelines the power to obtain rights of way through eminent domain for construction, operation, and maintenence of the pipeline. H.B. 514, 1983 Va. Gen. Assem. would have amended VA. CODE ANN. § 56-49 (Repl. Vol. 1981), striking the Code's present language which specifically forbids such use of eminent domain. Both bills were "passed by indefinitely" by the House of Delegates Committee on Corporations, Insurance and Banking and were never considered by the full Assembly. 1983 HOUSE JOURNAL 1299. The General Assembly did, however, pass a resolution, H.J. Res. 117, calling for a joint committee to study the coal slurry issue. 1983 VA. Acts 1296-97.

The 1984 General Assembly considered a bill, H.B. 479, 1984 Va. Gen. Assem., to allow coal slurry development, but the bill was defeated in committee. 1984 HOUSE JOURNAL ______. Similar in scope to the legislation considered in 1983, the Bill granted coal pipeline companies the power of eminent domain, but placed three limitations on exercise of the power. Eminent domain could be used only to acquire rights of way on which to construct and operate a coal pipeline. The interest acquired would be an easement rather than fee simple ownership. Eminent domain, finally, could not be used to obtain water rights. The 1984 bill also contained more comprehensive environmental safeguards than did prior proposed legislation. H.B. 479, 1984 Va. Gen. Assem.

^{9.} Richmond Times-Dispatch, July 23, 1983, at B4, col. 5.

^{10.} SLURRY TRANSPORT ASSOCIATIONS, SLURRY TRANSPORT REPORT 1-2 (1979), cited in Comment, Coal Slurry and Railroad Crossings, supra note 2, at 1077 n.21.

^{11.} Johnson & Schneider, *supra* note 2, at 25 (quoting remarks made by William H. Dempsey, President, Association of American Railroads).

interests. Meeting the opposition's challenge is crucial to the success of coal slurry pipeline development. Exercising eminent domain powers is not valid unless it is for the public use,¹⁵ but public use is a nebulous concept. Assessing the public use quotient of coal slurry pipelines is at the center of the current controversy.

The first section of this note will examine in detail the public use requirement of eminent domain law, focusing on the public use standard in Virginia as it would be applied to a coal slurry pipeline. Other aspects of eminent domain, such as the definition of a "taking," the determination of compensation, and statutory procedure, will not be discussed.

The second half of this note will focus on water rights. The coal slurry pipeline is expected to require the transfer of at least 1.4 billion gallons of water annually from water basins within southwest Virginia.¹⁶ The proponents of the pipeline have not identified the precise water sources anticipated; however, the most likely sources of water are surface water from streams and groundwater supplies.¹⁷ Environmentalists are uncertain whether water supplies in southwest Virginia can accommodate the pipeline as well as other water uses.¹⁸ However, even if sufficient resources exist, water supply presents formidable legal obstacles to the implementation and operation of the coal slurry pipelines.

In Virginia, surface water is allocated according to the common law riparian doctrine.¹⁹ This doctrine exposes a heavy water user to private suits brought by other riparian owners²⁰ and prohibits the interbasin transfer of water.²¹ Groundwater rights are also governed by common law,

17. Clear water is not the only source of water for a coal slurry pipeline. Sewage water also may be used. O. Yucel, *supra* note 4, at 5-8. However surface water and groundwater are the most likely sources. The cost of purifying wastewater is prohibitive. K. Drummond, *supra* note 3, at 2-3.

18. Detailed studies of the impact of a pipeline on water supplies in southwest Virginia have not been conducted. See O. Yucel, supra note 4, at 1-14. Authorities agree that water must be impounded during the season of heavy flow for pipeline use during the dry season. Id. See also Teknekron, Inc., Issues and Analysis: Proposed Virginia Coal Slurry Pipeline 10 (1982) (prepared for Virginia Railway Association); K. Drummond, supra note 3, at 2-5.

19. A riparian right is generally defined as a right which every person has to the benefit of a natural water course passing through his land, for all useful purposes for which the water may be used. BLACK'S LAW DICTIONARY 1192 (5th ed. 1979).

20. See infra text accompanying notes 126-141. See also T. BERGIN, VIRGINIA WATER LAW: AN ECONOMIC APPRAISAL 106-140 (1975) (report to the State Water Control Board).

21. See infra text accompanying notes 142-152.

^{15.} See U.S. Const. amend. V; VA. Const. art. I, §§ 6, 11.

^{16.} K. Drummond, *supra* note 3, at 2. A coal slurry solution is comprised of equal amounts of water and ground coal. The coal is pumped through a pipeline to its destination which is usually an electrical plant. At the plant the coal is dewatered by centrifuge, and burned. II Virginia Society of Professional Engineers, Virginia Coal Transportation Study 39 (July 1983) [hereinafter cited as Transportation Study]. The slurry wastewater would probably be introduced into water sources within the Tidewater area. Pipeline proponents have not decided upon a method of purification or disposal. *Id.* at 47.

but these rights are ill-defined.²² Moreover, judicial decisions in Virginia indicate that impairment of riparian rights or groundwater rights by the Commonwealth may require compensation.²³ This latter section of the note will also examine existing laws governing water allocation in Virginia, proposed changes in those laws, and the constitutional issue raised by those suggestions.²⁴

II. OVERVIEW OF EMINENT DOMAIN AND THE PUBLIC USE REQUIREMENT

A. Historical Background of Eminent Domain

Eminent domain is the power of a sovereign to take private property for public use without the owner's consent upon payment of just compensation.²⁵ The implied corollary is that private property may not be taken for private use, with or without compensation. Americans generally regard eminent domain as a constitutional prerogative defined by the fifth and fourteenth amendments to the United States Constitution.²⁶ The idea of eminent domain, however, emerged well before the Constitution

For information on environmental issues, see Commonwealth ex rel. State Water Control Bd. v. County Utils. Corp., 223 Va. 534, 290 S.E.2d 867 (1982); VA. CODE ANN. §§ 62.1-44.2 to 44.34:2 (Repl. Vol. 1982); Transportation Study, supra note 16, at 40-56; H. PEAVY & P. JENNINGS, WATER POLLUTION POTENTIAL OF COAL SLURRY PIPELINES (1981) (reproduced by National Technical Information Service, U.S. Dep't of Commerce); INDUSTRIAL ENVIRONMEN-TAL RESEARCH LAB., U.S. ENVTL. PROTECTION AGENCY, ENVIRONMENTAL AND POLLUTION AS-PECTS OF COAL SLURRY PIPELINES (March 1979) (excerpts reprinted in CONGRESSIONAL RE-SEARCH SERVICE, LIBRARY OF CONGRESS, ARTICLE PACKET FOR USE IN COAL SLURRY PIPELINES 25); P. REED & G. WETSTONE, AIR AND WATER POLLUTION CONTROL LAW, 1982: A COMPRE-HENSIVE EXAMINATION OF THE LAW PERTAINING TO THE CONTROL OF AIR AND WATER POLLU-TION WITH EMPHASIS ON RECENT DEVELOPMENTS (1982).

25. 1 NICHOLS ON EMINENT DOMAIN § 1.11 (3d rev. ed. 1981) [hereinafter cited as NICHOLS].

26. W. STOEBUCK, NONTRESPASSORY TAKINGS IN EMINENT DOMAIN 5 (1977). The fifth amendment permits takings for public use; the fourteenth sets forth the parameters of due process.

^{22.} See infra text accompanying notes 153-170.

^{23.} See infra text accompanying notes 184-218.

^{24.} Issues raised by proposed interstate pipelines and environmental issues are beyond the scope of this paper. For information on issues arising from an interstate pipeline, see Colorado v. New Mexico, 103 S. Ct. 539 (1982) (holding that interstate disputes over surface water allocation are settled according to the federal common law of equitable apportionment); Sporhase v. Nebraska *ex rel*. Douglas, 102 S. Ct. 3456 (1982) (holding that statute prohibiting the transfer of groundwater from one state to another violates the commerce clause); H.R. 1010, 98th Cong., 1st Sess. (1983); S. 267, 98th Cong., 1st Sess. (1983); C.E. Dinkins, Assistant Attorney General, Land and Natural Resources Division, U.S. Dept. of Justice, Statements to the Subcomm. on Water Resources Division of Comm. on Environment and Public Works regarding Sporhase v. Nebraska (Sept. 15, 1982) (reprinted in CON-GRESSIONAL RESEARCH SERVICE, LIBRARY OF CONGRESS, ARTICLE PACKET FOR USE IN COAL SLURRY PIPELINES 9); Comment, State Restrictions, supra note 2. See also Abrams, Interbasin Transfers in a Riparian Jurisdiction, 24 WM. & MARY L. REV. 591, 608-23 (1983); Comment, supra note 7.

was drafted. Commentators believe, in fact, that a form of eminent domain existed in the Roman Empire.²⁷ The term itself originated with the seventeenth century civil law writer, Hugo Grotius.²⁸ The writings of Grotius and other Continental jurisprudents formed the theoretical framework on which early American eminent domain doctrine was built.²⁹ The Continentalists contended that the power to expropriate private property for public needs was vital to a government's existence, but they also suggested that compensation be paid for property taken.³⁰

American jurists were influenced as well by English practices surrounding the taking of private property, although it has been suggested that a finding of "close continuity" between American and English law in this instance is inappropriate.³¹ The term "eminent domain" is not used in England, but the concept may be traced to the powers held by the monarchs, known as prerogatives.³² These powers could be executed by the crown without consent of Parliament and generally without payment of compensation to the property owner. English monarchs could not use their prerogatives to take estates in land, with or without compensation, since that power belonged to Parliament alone.³³

As the American colonies were settled, the power of eminent domain was used to expropriate private land for roads, bridges, and mill dams. The mill dam acts authorized an owner of land situated on a stream to erect and operate a mill even though his neighbor's land would be flooded by the process.³⁴ Mill dam acts generally applied only to grist mills, which were considered a public benefit that contributed to the country's prosperity although they were operated for a profit by private individuals.³⁵ The use of eminent domain for mill dams established a precedent which would be used repeatedly as the new country expanded. Railroads were the primary beneficiaries of eminent domain grants, and telephone and power lines followed in their tracks.³⁶

30. W. STOEBUCK, supra note 26, at 13.

31. Meidinger, The "Public Uses" of Eminent Domain: History and Policy, 11 ENVTL. L. 1, 9 (1980).

32. W. STOEBUCK, supra note 26, at 7.

33. Id. at 8.

34. See Head v. Amoskeag Mfg. Co., 113 U.S. 9, 18-19 (1884) for a compilation of mill dam acts. Virginia's act dates from 1667 and is apparently the earliest in the United States. 1 NICHOLS, supra note 25, at § 1.22(8).

35. See, e.g., Crenshaw v. Slate River Co., 27 Va. (6 Rand.) 245, 263 (1828).

36. Meidinger, supra note 31, at 27. Use of eminent domain by railroads was upheld in every jurisdiction in which it was challenged. See 2A NICHOLS, supra note 25, at § 7.521 for

^{27.} Id. at 4.

^{28.} H. GROTIUS, DE JURE BELLI AC PACIS 807 (F. Kelsey, trans. 1925), cited in W. STOEBUCK, supra note 26, at 4.

^{29.} W. STOEBUCK, *supra* note 26, at 12. *See, e.g.*, Gardner v. Trustees of Village of Newburg, 2 Johns. 162 (N.Y. 1816) (downstream riparian owner awarded compensation for water taken by village waterworks project).

B. Defining "Public Use"

The emphasis placed on public use within the concept of eminent domain is an American adaptation.³⁷ The term "public use" was found in the Virginia and Pennsylvania constitutions of 1776,³⁸ and similar language appears in most state constitutions.³⁹ These provisions do not, however, clearly define the term. As the taking of private property for private use is not expressly prohibited, states have developed two interpretations of the public use requirement.

The narrow view defines public use as "actual use or right to use by the public,"⁴⁰ while the broad view holds that public use means "advantage or benefit to the public."⁴¹ Under the broad view, a taking for an ostensibly private use is permitted if that use accrues benefit to the public. For example, electric power companies are given eminent domain powers because the public uses the product even though the public does not use or have access to the plant itself. "Private purposes may be served incidentally, but this does not destroy the public character of the corporation. . . ."⁴²

When the public use requirement was first applied to turnpikes, canals, and railroads, either definitional standard could be met.⁴³ However, the difficulty in defining the appropriate standard became more apparent in the mid-1800's as privately held corporations were granted eminent domain powers to condemn land for logging and mining enterprises. Although the private benefit to the company appeared to overshadow the anticipated use by the public, the takings were generally upheld by state courts which liberally construed the public use requirement, predicating their findings on the nature of the state's resources and industry.⁴⁴

42. Light v. City of Danville, 168 Va. 181, 205, 190 S.E. 276, 285 (1937).

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case citations.

^{37.} The term "public use" apparently originated with the Continental civil law commentators. W. STOEBUCK, *supra* note 26, at 14. The requirement is not imposed in England. Meidinger, *supra* note 31, at 12.

^{38.} Meidinger, supra note 31, at 16. The constitutional language of 1776 has been incorporated into the present Virginia Constitution at art. I, § 6, which reads in part: " [A]ll men . . . cannot be . . . deprived of, or damaged in, their property for public uses, without their own consent, or that of their representatives duly elected"

^{39.} W. STOEBUCK, supra note 26, at 5. Every state constitution except North Carolina's contains language regarding the taking of private property. *Id.* Even though North Carolina lacks a constitutional clause concerning the taking of private property, state courts have recognized and liberally applied those principles. *See* Gray v. City of High Point, 203 N.C. 756, 166 S.E. 911 (1932); Hines v. City of Rocky Mount, 162 N.C. 409, 78 S.E. 510 (1913).

^{40.} Berger, The Public Use Requirement in Eminent Domain, 57 OR. L. REV. 203, 205 (1978).

^{41.} Id. See also Comment, Eminent Domain: Private Corporations and the Public Use Limitation, 11 U. BALT. L. REV. 310, 312-13 (1982).

^{43.} Meidinger, supra note 31, at 32.

^{44.} Id. at 29. See, e.g., Great Falls Mfg. Co. v. Fernald, 47 N.H. 444 (1867) (appropriating

Prior to an 1875 United States Supreme Court decision declaring that the federal government could exercise eminent domain powers in its own name,⁴⁵ eminent domain proceedings were largely a matter of state law.⁴⁶ Since the federal courts borrowed from state case law to shape their own eminent domain doctrine, the broader view of public use was generally adopted.⁴⁷ In addition, in reviewing state court decisions, the Supreme Court has shown great deference to state findings of public use⁴⁸ but has avoided setting forth a universal test.⁴⁹ Most commentators, however, believe the Court has rejected the narrow interpretation.⁵⁰ In a 1916 case involving condemnation by an Alabama power company, Justice Holmes stated: "The inadequacy of use by the general public as a universal test is established.³⁵¹

"Public use" resists precise definition because it "expand[s] when necessary to encompass changing public needs. . . ."⁵² It may appear that almost any taking can be construed to meet the public use requirement, as the amorphous nature of the doctrine requires a certain flexibility in application.⁵³

C. "Public Use" in Virginia

Since colonial days, Virginia has recognized taking for public use as an element of eminent domain.⁵⁴ The authority to determine what consti-

49. Meidinger, supra note 31, at 30.

51. Mount Vernon-Woodberry Cotton Duck Co. v. Alabama Interstate Power Co., 240 U.S. 30, 32 (1916).

the state's plentiful water power to encourage manufacturing held to be a public benefit); Dayton Gold & Silver Mining Co. v. Seawell, 11 Nev. 394 (1876) (taking land for mining found to be in the public benefit). *But see, e.g.*, Ryerson v. Brown, 35 Mich. 333 (1877) (condemnation not allowed for flour mill); Salt Co. v. Brown, 7 W. Va. 191 (1874) (proposed taking of right of way by mining company held not for public use).

^{45.} Kohl v. United States, 91 U.S. 367, 374 (1875) (land taken for post office site).

^{46.} Id. at 373.

^{47.} Meidinger, supra note 31, at 30.

^{48.} *Id.* at 30-31. The Supreme Court apparently has invalidated a state exercise of eminent domain only once. *See* Missouri Pac. Ry. v. Nebraska, 164 U.S. 403 (1896) (holding that where the state had ordered the railroad to allow a grain elevator on its property, such a taking was invalid, since the elevator was not seen as benefitting the public).

^{50.} Id. at 34-35. See Berman v. Parker, 348 U.S. 26 (1954).

^{52.} Roe v. Kervick, 42 N.J. 191, 207, 199 A.2d 834, 842 (1964), quoted in City of Oakland v. Oakland Raiders, 32 Cal. 3d 60, 73, 646 P.2d 835, 842, 183 Cal. Rptr. 673, 680 (1982). See also Texas Pipe Line Co. v. Snelbaker, 30 N.J. Super. 171, _____, 103 A.2d 634, 638 (1954) (quoting Scudder v. Trenton Delaware Falls Co., 1 N.J. Eq. 694 (1832)) ("The varying condition of society is constantly presenting new objects of public importance and utility; and what shall be considered a public use or benefit, may depend somewhat on the situation and wants of the community for the time being.").

^{53.} Meidinger, supra note 31, at 42.

^{54.} See supra note 38 and accompanying text.

tutes public use is vested in the General Assembly,⁵⁵ which may exercise that power directly or through subordinate agencies.⁵⁶ However, the legislature cannot designate a private use public merely by declaring it so,⁵⁷ and the grantee does not become a public service corporation simply by accepting a grant of eminent domain powers.⁵⁸ The legislature determines the expediency, necessity, and propriety of resorting to the exercise of eminent domain,⁵⁹ but the character of the use remains subject to judicial review.⁶⁰ The courts, however, will defer to legislative discretion unless the use is clearly not a public one.⁶¹

Both the Virginia Code and the case law define public use. The statutory definition declares that "[t]he term 'public uses'... embrace[s] all uses which are necessary for public purposes."⁶² The case law characterizes public use as that which is "meant for the use of many or where the public is interested."⁶³ A sampling of eminent domain cases indicates that Virginia courts have established the following criteria to assist in applying these definitions:

1. The use must be fixed and definite;

2. The use must remain independent of the condemner's will and be guarded by the state;

3. The use must be necessary to the public's well being;

4. The necessity for the taking must be obvious.⁶⁴

A taking which fails to meet these tests is not one for public use. If the public use requirement is not met, eminent domain powers may not be exercised.

61. Jeter v. Vinton-Roanoke Water Co., 114 Va. 769, 777, 76 S.E. 921, 925 (1913) (quoting T. COOLEY, CONSTITUTIONAL LIMITATIONS 660-61 (6th ed. 1890)).

62. VA. CODE ANN. § 15.1-276 (Repl. Vol. 1981).

63. Jeter, 114 Va. at 778, 76 S.E. at 925 (citing Seely v. Sebastian, 4 Or. 27 (1870)).

^{55.} VA. CONST. art. I, § 11.

^{56.} Jeter v. Vinton-Roanoke Water Co., 114 Va. 769, 776-77, 76 S.E. 921, 925 (1913).

^{57.} See, e.g., Boyd v. C.C. Ritter Lumber Co., 119 Va. 348, 357, 89 S.E. 273, 276 (1916) (construing Brown v. Gerald, 100 Me. 351, 61 A. 785 (1905)).

^{58.} Boyd v. C.C. Ritter Lumber Co., 119 Va. at 366, 89 S.E. at 278 (construing Norfolk County Water Co. v. Wood, 116 Va. 142, 81 S.E. 19 (1914)).

^{59.} Ruddock v. City of Richmond, 165 Va. 552, 562, 178 S.E. 44, 48 (1935), *aff'd*, 183 S.E. 513, *cert. denied*, 298 U.S. 674 (1936). *See* Miller v. Town of Pulaski, 109 Va. 137, 143, 63 S.E. 880, 883 (1909) (citing LEWIS, EMINENT DOMAIN § 238 (2d ed. 1900)).

^{60.} Light v. City of Danville, 168 Va. 181, 208, 190 S.E. 276, 287 (1937). But see Plecker v. Rhodes, 71 Va. (30 Gratt.) 795 (1878).

^{64.} See, e.g., Peck Iron & Metal Co. v. Colonial Pipeline Co., 206 Va. 711, 146 S.E.2d 169, cert. denied, 385 U.S. 823 (1966); Light v. City of Danville, 168 Va. 181, 190 S.E. 276 (1937); Boyd v. C.C. Ritter Lumber Co., 119 Va. 348, 89 S.E. 273 (1916); Fallsburg & Co. v. Alexander, 101 Va. 98, 43 S.E. 194 (1903).

III. Applying The Public Use Requirement To Coal Slurry Pipelines

Proponents contend coal slurry pipelines meet the public use requirement; opponents claim they do not. Since it would appear both sides may be influenced by extra-altruistic considerations,⁶⁵ an objective analysis of the coal slurry pipeline — public use issue may be helpful to fully assess whether the slurry companies should be entitled to exercise eminent domain powers. As observed in the preceding section, Virginia case law has set forth guidelines for determining the public use requirement.⁶⁶ Applying these criteria to a coal slurry pipeline is one approach to measuring its public use quotient. A similar approach was used by the Virginia Supreme Court in *Peck Iron & Metal Co. v. Colonial Pipeline Co.*⁶⁷ In that case, Peck questioned Colonial's right of eminent domain to take an easement across Peck's land for a pipeline to transport petroleum products. The court recognized petroleum products as an essential public need and held the taking was for a public use because the applicable requirements had been met.⁶⁸

A. Use Must Be Fixed and Definite

Statutes conferring eminent domain powers are strictly construed.⁶⁹ Courts measure carefully the words used by legislators, adding nothing by implication,⁷⁰ and construing any ambiguity in the grant against the condemner and in favor of the public.⁷¹ A grant of eminent domain to a private corporation must explicitly state the corporate purpose for which the grant is made. A company's status as a public service corporation with eminent domain powers is not determined by what it actually does or intends to do, but by what its charter prescribes it must do as a public duty.⁷² "Mere recognition of the corporation in its charter as an 'Internal

^{65.} See, e.g., Dismal Swamp Ry. Co. v. John L. Roper Lumber Co., 114 Va. 537, 553-54, 77 S.E. 598, 604 (1913) (quoting Wellsburg & S.L.R. Co. v. Panhandle Traction Co., 56 W. Va. 26, 48 S.E. 746, 750 (1904)) ("Other motives than the mere operation of a common carrier and other works of internal improvement always move the people who build them, else none would ever be constructed. They constitute fields of profitable investment").

^{66.} See supra text accompanying note 64.

^{67. 206} Va. 711, 146 S.E.2d 169, cert. denied, 385 U.S. 823 (1966).

^{68.} Id. at 715-16, 146 S.E.2d at 172.

^{69.} Light v. City of Danville, 168 Va. 181, 196, 190 S.E. 276, 281 (1937). See also Ohio Power Co. v. Deist, 154 Ohio St. 473, 96 N.E.2d 771, 773 (1951).

^{70.} See, e.g., Botts v. Southwest Pipe-Line Co., 190 Ga. 689,, 10 S.E.2d 375, 384 (1940).

^{71.} Rice v. Railroad Co., 66 U.S. (1 Black) 358 (1861) (quoted in Jeter v. Vinton-Roanoke Water Co., 114 Va. 769, 786-87, 76 S.E. 921, 928 (1913) (Buchanan & Whittle, JJ., dissenting)).

^{72.} Boyd v. C.C. Ritter Lumber Co., 119 Va. 348, 365, 89 S.E. 273, 278 (1916) (construing Norfolk County Water Co. v. Wood, 116 Va. 142, 81 S.E. 19 (1914)).

Improvement Company' does not make it so. . . .⁷⁷³ In Fallsburg & Company v. Alexander,⁷⁴ for example, the General Assembly had authorized a private company to condemn private property "[t]o erect, maintain and operate its plant . . . for its own use or the use of other individuals or corporations. . . .⁷⁷⁵ Although public benefit was implicitly stated, the court found the public benefit attributed to the plant by the company's charter to be "vague, indefinite and uncertain. . . .⁷⁷⁶ The proposed taking thus was held invalid.⁷⁷

On the other hand, cases involving condemnations by municipal power and water companies generally have been upheld by the court because the nature, character and extent of public use overrides an incidental private benefit.⁷⁸ The primary purpose of the use determines its nature.⁷⁹ The private benefit may be served incidentally as long as the public benefit predominates.⁸⁰ Observing the line of demarcation between private benefit and public use, however, can be difficult.⁸¹ In *Phillips v. Foster*,⁸² the Virginia Supreme Court found a condemnation proceeding to acquire an easement for a drainage ditch invalid because the public use was not predominant. The taking was characterized as an attempt by a private individual to develop his property for his own purposes. The court found his contention that the ditch ultimately would benefit the public to be misplaced.⁸³ The common interest necessary for public use was not clearly delineated and the proceeding did not pass judicial muster.⁸⁴

Public use is not measured by the number of people served. "The public use required need not be the use or benefit of the whole public or state, or any large portion of it."⁸⁵ Service to one customer has been

80. In some instances, the profit inuring to the private corporation conducting the enterprise is regarded as compensation for the benefit conferred. See, e.g., Jeter, 114 Va. at 784, 76 S.E. at 927 (construing Beekman v. Saratoga & S.R.R., 3 Paige Ch. 45 (N.Y. Ch. 1831), reprinted in 22 Am. Dec. 679 (1881)).

81. Light, 168 Va. at 206, 190 S.E. at 276 (construing Nichols v. Central Va. Power Co., 143 Va. 405, 130 S.E. 764 (1925)).

82. 215 Va. 543, 211 S.E.2d 93 (1975).

83. Id. at 546-47, 211 S.E.2d at 96. ("The salient consideration is not whether public benefit results, but whether a public use is predominant.").

84. Id. But cf. Rudder v. Wise County Redev. & Hous. Auth., 219 Va. 592, 249 S.E.2d 177 (1978), appeal dismissed, 441 U.S. 939 (1979).

85. Miller v. Town of Pulaski, 109 Va. 137, 143, 63 S.E. 880, 883 (1909) (quoting Lewis, EMINENT DOMAIN § 161 (2d ed. 1900)); accord Phillips Pipe Line Co. v. Brandstetter, 241 Mo. App. 1138, _____, 263 S.W.2d 880, 886 (1954) (construing Rindge Co. v. Los Angeles County, 262 U.S. 700 (1923)).

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^{73.} Fallsburg & Co. v. Alexander, 101 Va. 98, 109, 43 S.E. 194, 198 (1903).

^{74. 101} Va. 98, 43 S.E. 194 (1903).

^{75.} Id. at 99, 43 S.E. at 195.

^{76.} Id. at 109, 43 S.E. at 198.

^{77.} Id. at 110, 43 S.E. at 199.

^{78.} See, e.g., Light, 168 Va. 181, 190 S.E. 276 (1937).

^{79.} Id. at 211, 190 S.E. at 288.

found to serve a public need. In *Handley v. Cook*,⁸⁶ the West Virginia Supreme Court affirmed the right of a power company to condemn land for construction of a high voltage power line to serve a single coal mining operation. The court reasoned that supplying electricity was a public use.⁸⁷

In Virginia, utility companies, as well as gas and oil pipeline companies, are designated by statute as public service corporations empowered to exercise eminent domain for their enterprises.⁸⁸ Coal slurry pipelines are designed to transport coal. Coal is used by power companies to generate electricity. Electricity benefits the public. By analogy, it would seem that a coal pipeline company could be organized for a purpose which would be sufficiently fixed and definite to constitute public use.⁸⁹

B. Use Must Be Protected

A use is protected if the public's legal right to it cannot be denied or withdrawn at will by the condemner once he acquires the property.⁹⁰ A protected use remains a public use because the public continues to possess the right to receive and enjoy the benefit of the use.⁹¹ The state, as sovereign, guards the public use by supervising and regulating the industry involved.⁹² Mill dam acts were found to be constitutional uses of eminent domain because the grist mills they authorized were considered public utilities subject to state control.⁹³ However, mills which were viewed solely as private enterprises were not accorded eminent domain status since the mill owner could at any time devote his property to a different use or dispose of it entirely.⁹⁴ If the use by the public is permissive and

90. See, e.g., Fallsburg & Co. v. Alexander, 101 Va. 98, 107, 43 S.E. 194, 198 (1903) (citing Lewis, Eminent Domain § 165 (2d ed. 1900)).

91. Peck Iron & Metal Co. v. Colonial Pipeline Co., 206 Va. 711, 715, 146 S.E.2d 169, 172 cert. denied, 385 U.S. 823 (1966).

92. Peck Iron & Metal Co., 206 Va. at 716, 146 S.E.2d at 172.

93. Boyd v. C.C. Ritter Lumber Co., 119 Va. 348, 362, 89 S.E. 273, 277 (1916) (referring to Varner v. Martin, 21 W. Va. 534 (1883)). Grain was ground for a toll fixed by law and was to be ground in the order presented; if a mill was destroyed, the owner was required to rebuild it within a specified period. 119 Va. at 362, 89 S.E. at 277.

94. Bailey v. Anderson, 182 Va. 70, 74, 27 S.E.2d 914, 915-16 (1943) cert. denied 321 U.S. 799 (1944) ("[T]he test of whether or not property has been devoted to public use is what the owner must do, not what he may choose to do.").

^{86. 252} S.E.2d 147 (W. Va. 1979).

^{87.} Id. at 147.

^{88.} VA. CODE ANN. § 56-260 (Repl. Vol. 1981).

^{89.} See, e.g., Light, 168 Va. at 205, 190 S.E. at 285. Whether a pipeline is to be laid to transport petroleum or coal, the requisite easement would be the same. A court could reasonably find that a grant of eminent domain to pipeline companies to transport petroleum products necessarily implies a similar grant for the purpose of transporting coal. Note, "Public Use" as a Limitation on the Exercise of the Eminent Domain Power by Private Entities, 50 Iowa L. Rev. 799, 803 (1965).

may be abandoned at any time, the use is not independent of the owner's will⁹⁵ and therefore is private.

Railroads allege that coal slurry pipelines are a private use. The railroad industry's position is that coal pipelines will not be common carriers and the public's right to use the pipelines will not be independent of the slurry companies.⁹⁶ The holding in *Boyd v. C.C. Ritter Lumber Co.*⁹⁷ offers some support for the railroad's view. In that case, a lumber company sought to condemn land to build a tramroad to haul logs. The act delegating eminent domain authority to the company provided:

[N]othing in this act shall operate to give any person, firm or corporation, a right to the exclusive use of such [road] . . .; and the public shall have the right to use the said land for travel as other public roads are used, and any other person, firm or corporation shall have an equal right to use the said [road] . . . upon paying proper compensation therefore.⁹⁸

The court refuted the lumber company's contention that the proposed tramroad would benefit the general public.⁹⁹ Since the company was not a common carrier, it was not compelled to carry public goods over its tramroad, and the public's right to use the road was dependent on supplying its own mode of transportation.¹⁰⁰

Some smaller coal producers also fear that access to the slurry pipeline will be limited.¹⁰¹ Slurry supporters, however, maintain the pipeline will be available to all shippers.¹⁰² As a public service corporation, a coal pipeline in Virginia would be subject to many of the same limitations as gas and oil pipelines, other public utility companies, and railroads.¹⁰³ It would appear likely, therefore, that the public use could be adequately protected.

C. Use Must Be Necessary To Public Well Being

A use is considered necessary if denying the use would cause great hardship and inconvenience to the public.¹⁰⁴ Since an economical, effi-

101. Coal Slurry Bill Approved by Senate Panel, 41 Cong. Q. WKLY. REP. 751 (1983).

102. Comment, *supra* note 5, at 465. H.B. 262, 1983 Va. Gen. Assem., specifically required that coal pipeline carriers reasonably accomodate small coal operators.

103. For example, H.B. 262, 1983 Va. Gen. Assem., provided that coal pipelines would be taxed in the same manner as railway companies.

104. See, e.g., Fallsburg Power & Mfg. Co. v. Alexander, 101 Va. 98, 104, 43 S.E. 194, 196 (1903).

^{95.} Id.

^{96.} Comment, supra note 5, at 465.

^{97. 119} Va. 348, 89 S.E. 273 (1916).

^{98.} Id. at 351, 89 S.E. at 274.

^{99.} Id. at 356, 89 S.E. at 275.

^{100.} Id.

cient coal transportation system is essential to meet energy needs, an effective way to assess the necessity of the coal slurry pipeline to the public well being is to compare it to the railroad.

Coal slurry pipelines are believed to have less adverse environmental impact than trains. They do not cause noise or air pollution.¹⁰⁵ They are located underground, eliminating traffic hazards generally associated with railway crossings.¹⁰⁶ However, coal pipelines are criticized by environmental and agricultural groups because they use an excessive amount of water.¹⁰⁷ One ton of water is required to ship one ton of coal.¹⁰⁸ In addition, there is a problem with disposal of the water extracted from the coal after its removal from the pipeline.¹⁰⁹

Coal slurry pipelines are considered more economical to operate than trains. The effect of inflation on pipelines is minimal since large capital outlays occur only at the time of construction.¹¹⁰ Operating costs are reduced because less labor is required; a coal pipeline requires one-seventh the manpower of rail shipment to move an equivalent amount of coal.¹¹¹ However, railroads contend that since they employ more workers, they create a greater public benefit.¹¹² Slurry opponents fear that the loss of revenue to the railroads from decreased coal business would result in massive lay-offs of railway workers.¹¹³

Various studies comparing the energy efficiency of trains to pipelines have been conducted by railroad, coal and utility interests. While it appears pipelines work at their maximum efficiency when carrying large volumes of coal long distances,¹¹⁴ the two systems are comparable in energy use for similar distances, terrain and capacity.¹¹⁵ According to sup-

108. Comment, State Restrictions, supra note 2, at 666.

109. Id. at 675.

- 111. Comment, State Restrictions, supra note 2, at 665.
- 112. Comment, supra note 5, at 454.
- 113. Id. at 459; Comment, State Restrictions, supra note 2, at 669-70.
- 114. Comment, supra note 5, at 455.

^{105.} Comment, State Restrictions, supra note 2, at 665.

^{106.} Id.

^{107.} Id., at 666-67; Johnson & Schneider, supra note 2, at 32-33. One suggested solution has been to recycle the water. This, however, would increase construction and operation costs. Comment, State Restrictions, supra note 2, at 673. A second proposed solution would be to use water unsuited for other purposes, but this would exacerbate disposal problems. The issues of water usage and water rights are as important to the coal pipeline controversy as the eminent domain issue. See infra notes 126-218 and accompanying text.

^{110.} Johnson & Schneider, supra note 2, at 27-28.

^{115.} Coal Distribution and Utilization Act of 1982: Hearings on S.B. 1844 Before the Subcomm. on Surface Transp. of the Senate Comm. on Commerce, Science & Transp., 97th Cong., 2d Sess. 77 (1982) (statement of Ross Workman, Chairman, Slurry Transp. Ass'n and Senior Vice-president, Continental Resources Co.). In his remarks to the subcommitte, Workman referred to a study prepared in 1982 by the Virginia Center for Coal & Energy Research at the Virginia Polytechnic Institute and State University, which analyzed eight

porters, though, the most significant advantage of coal pipelines is that they will offer competition to railroads which may reduce freight rates.¹¹⁶

Whether or not coal slurry pipelines meet the "necessary" test depends upon a balancing of diverse factors. A site-specific analysis would be necessary to properly determine the pipeline's advantages and disadvantages.¹¹⁷

D. Necessity for Taking Must Be Obvious

The element of necessity requires a need for the proposed service which can only be met by taking particular property.¹¹⁸ The location of the property or the character of the use must preclude the public from obtaining other equally suitable property.¹¹⁹ Coal shippers have identified a need for pipeline transportation which can only be met by crossing railroad rights of way. Alternate routes which would avoid crossing tracks and easements are apparently not feasible since railroads have extensive land holdings.¹²⁰ Moreover, in Virginia, as in most eastern states, railroads acquired their land in fee simple.¹²¹ They may use their property as absolutely and unrestrictedly as an individual fee owner.¹²² Thus, without railroad cooperation, laying a coal pipeline appears impossible unless coal

118. In Virginia the element of necessity is also applied on a different level in situations involving two corporations with eminent domain powers. One such corporation shall not take the other's property by condemnation if the property is essential to the other corporation's purpose. VA. CODE ANN. § 25-233 (Repl. Vol. 1980). Virginia case law has generally protected railroads from takings by other entities on the theory that curtailing railroad operations is not in the public interest. See, e.g., City of Bristol v. Virginia & S.W. Ry. Co., 200 Va. 617, 625, 107 S.E.2d 473, 478 (1959). However, the Virginia House Bill drafted in 1983 expressly provided that Virginia Code § 25-233 would not be applicable to eminent domain proceedings involving coal pipelines. H.B. 262, 1983 Va. Gen. Assem. § 56-537.

119. See, e.g., Fallsburg & Co. v. Alexander, 101 Va. 98, 104, 43 S.E. 194, 196 (1903).

120. Interview, *supra* note 116 ("You can't go 25 miles in any direction in Southwest Virginia without crossing railroad tracks.").

121. See Blondell v. Guntner, 118 Va. 11, 12, 86 S.E. 897, 897 (1915); see also Norfolk & W. Ry. v. Bremco Mills, 288 N.E.2d 868, 871-72 (Ohio 1971) (holding that in the absence of evidence to the contrary, courts will presume that the railroad acquired a fee simple absolute estate).

In contrast, railroads in the western states acquired their rights of way through federal and state land grants such as the Union Pacific Act of 1862. Comment, *Coal Slurry and Railroad Crossings, supra* note 2, at 1081 n.57.

122. 65 Am. JUR. 2D Railroads § 102 (1972).

different possible pipeline routes running across Virginia and concluded that energy efficiency was not a dispositive factor in choosing between trains and pipelines. *See also* VA. S. Doc. No. 13, Reg. Sess. 4 (1983).

^{116.} Interview with L. Blaine Carter, President of the Virginia Coal Association, Richmond, Virginia (July 18, 1983). See also Johnson & Schneider, supra note 2, at 30.

^{117.} One authority advocates use of a site-dependency test to establish public use. As applied, his approach balances the interests of all parties involved so that the taking results in minimizing private injury while maximizing public good. Meidinger, *supra* note 31, at 45-49.

slurry companies are granted eminent domain powers.

Railroads refute these contentions by noting that rights of way for the proposed Wyoming to Arkansas slurry were obtained by Energy Transportation Systems, Inc., without using eminent domain.¹²³ However, the numerous court cases filed by Energy Transportation Systems to secure easements¹²⁴ added considerable delay and expense to the project. Moreover, since other groups of landowners are also opposed to slurries, use of eminent domain would provide an expedient and uniform resolution to pipeline acquisition problems.¹²⁵

IV. SURFACE WATER ALLOCATION

A. The Riparian Doctrine

In Virginia, surface water allocation is largely a matter of riparian rights. The riparian landowner does not own the water but has the usu-fructuary right¹²⁶ to extract and use the water flowing through and by his land.¹²⁷

The well settled general rule on this point is that each proprietor has *ex jure naturae* an equal right to the reasonable use of the water running in a natural course through or by his land for every useful purpose to which it can be applied, whether domestic, agricultural or manufacturing, providing it continues to run, after such use, as it is wont to do, without material diminution or alteration and without pollution; but he cannot diminish its quantity materially or exhaust it (except perhaps for domestic purposes and in the watering of cattle) to the prejudice of the lower proprietors, unless he has acquired a right to do so by grant, prescription or license.¹²⁸

As can be seen, a withdrawal which "materially diminishes" the flow available for lower riparian uses probably would be deemed unreasonable. The proposed coal slurry pipeline will demand approximately two million gallons of water each day¹²⁹ from water sources in southwest Virginia.

125. Johnson & Schneider, supra note 2, at 36.

128. Hite v. Town of Luray, 175 Va. 218, 225, 8 S.E.2d 369, 372 (1940). 129. O. Yucel, *supra* note 4, at 1-11.

^{123.} Coal Slurry Eminent Domain Approved by Interior Panel, 41 Cong. Q. WKLY. REP. 705, 706 (1983).

^{124.} See, e.g., Energy Transp. Sys. v. Union Pac. R.R., 619 F.2d 696 (8th Cir. 1980); Energy Transp. Sys. v. Union Pac. R.R., 606 F.2d 934 (10th Cir. 1979).

^{126.} A usufruct is "the right of enjoying a thing, the property of which is vested in another, and to draw from the same all profit, utility, and advantage which it may produce, providing it be without altering the subtance of the thing." A usufructuary right is the right to enjoy anything in which one has no property interest. BLACK'S LAW DICTIONARY 1384 (5th ed. 1979).

^{127.} See, e.g., Taylor v. Commonwealth, 102 Va. 759, 773, 47 S.E. 875, 880-81 (1904). See generally Ausness, Water Rights Legislation in the East: A Program for Reform, 24 WM. & MARY L. REV. 547, 548-50 (1983).

Should the proposed withdrawals of water interfere with other reasonable uses, pipeline owners might be enjoined from further use¹³⁰ or held liable for damages.¹³¹ Admittedly the riparian doctrine has not been the source of prolific litigation, as water resources in Virginia are plentiful. However,

operators should be aware of the potential for private litigation.

Pipeline owners should also be aware that the riparian doctrine does not ensure continuous, fixed rights to water supplies.¹³² Prior use does not insulate a riparian owner from liability.¹³³ Riparian rights are appurtenant to the land and every riparian owner has an equal right to the use of the water regardless of when he initiates his use. Therefore, a use which is reasonable today may become unreasonable tomorrow. If a lower riparian owner alters his water use, or if a newcomer introduces a use, the upper riparian owner's extraction may become unreasonable in reference to the altered needs of his neighbors.¹³⁴

with increasing water demands, this situation could change, and pipeline

Furthermore, highly profitable or beneficial community uses are not considered more reasonable than ordinary uses. In fact, an upper riparian owner may materially diminish or exhaust the water supply as long as his use is reasonable for ordinary domestic and agricultural purposes.¹³⁵ In disputes over riparian rights, the courts have refused to "'chisel away' vested rights of property of private individuals, however humble and obscure the owner, for the benefit of the public or the great corporations."¹³⁶

Critics of the common law claim that the uncertainty of water rights is the greatest drawback to the application of the riparian doctrine.¹³⁷ The

133. See, e.g., Norfolk & W. Ry. v. A.C. Allen & Sons, 122 Va. 603, 95 S.E. 406 (1918). But see Mumpower v. City of Bristol, 90 Va. 151, 153, 17 S.E. 853, 854 (1893) (suggesting that a proprietor who first erects a dam for a useful purpose has a right to maintain it, as against lower proprietors).

134. See Walker & Cox, Virginia Water Policy: The Imprecise Mandate, 14 WM. & MARY L. Rev. 312, 324 (1972). For a general discussion of the uncertainty of "reasonable use," see T. BERGIN, supra note 20, at 110.

135. See, e.g., Hite v. Town of Luray, 175 Va. at 225, 8 S.E.2d at 372.

136. Arminius Chem. Co. v. Landrum, 113 Va. at 18, 73 S.E. at 464. (citing Drake v. Lady Essley Coal, Iron & Ry., 102 Ala. 501, _____, 14 So. 749, 751 (1894)). See also Town of Purcellville v. Potts, 179 Va. at 522-23, 19 S.E.2d at 703 (stating that the fact that the defendant is a municipality does not relieve it from the application of riparian doctrine).

137. See supra text accompanying notes 132-34.

See, e.g., Town of Purcellville v. Potts, 179 Va. 514, 522, 19 S.E.2d 700, 703 (1942).
 See, e.g., Norfolk & W. Ry. v. A.C. Allen & Sons, 122 Va. 603, 613, 95 S.E. 406, 408 (1918).

^{132. &}quot;[T]he right of no one is absolute, but is qualified by the rights of others to have the stream substantially preserved in its natural size, flow and purity" Arminius Chem. Co. v. Landrum, 113 Va. 7, 16, 73 S.E. 459, 464 (1912) (quoting Strobel v. Kerr Salt Co., 164 N.Y. 303, ______, 58 N.E. 142, 147 (1900)). "The reasonableness of the use depends upon the nature and size of the stream, the business or purposes to which it is made subservient, and on the ever-varying circumstances of each use." Davis v. Town of Harrisonburg, 116 Va. 864, 869, 83 S.E. 401, 403 (1914).

reasonableness of an anticipated use is difficult to predict. It can only be determined by the courts. In fact, a complainant may be compelled to wait until a facility is built and operating before damages can be ascertained or an injunction can be granted.¹³⁸

Riparian rights are alienable and severable,¹³⁹ thus, an anxious pipeline owner could purchase the riparian rights of lower proprietors. However, such a purchase could involve costly and lengthy title searches. Moreover, a non-cooperating riparian owner might still complain that the combined use of these newly-acquired riparian rights is more unreasonable than previous uses. Detractors of the riparian doctrine contend that it discourages the development of profitable enterprises which depend upon secure supplies of water.¹⁴⁰ The General Assembly, however, has been reluctant to tamper with existing riparian rights,¹⁴¹ and pipeline investors would be wise to consider the common law obstacles to a continuous and adequate water supply.

B. The Prohibition Against Interbasin Transfers of Water

The Supreme Court of Virginia has held that a diversion of water for use beyond riparian land deprives lower proprietors of the natural flow and is therefore an extraordinary and unreasonable use.¹⁴² Such a diversion is a nuisance requiring injunctive relief.¹⁴³ Riparian land is land within the natural watershed of the stream and which is adjacent to the stream. Riparian rights are confined to the watershed so that the water, after its use, will drain back into the stream. The lower riparian land of the stream "is entitled . . . to the use of the waters."¹⁴⁴

This rule has been interpreted as barring the interbasin transfer of water.¹⁴⁵ Current pipeline proposals depend upon the transfer of water from streams in southwest Virginia to waterbasins within the Tidewater

^{138.} See, e.g., Town of Purcellville v. Potts, 179 Va. at 523, 19 S.E.2d at 704.

^{139.} See Marine Resources Comm'n v. Forbes, 214 Va. 109, 112, 197 S.E.2d 195, 198 (1973); Thurston v. City of Portsmouth, 205 Va. 909, 912, 140 S.E.2d 678, 680 (1965); Hite v. Town of Luray, 175 Va. at 224, 8 S.E.2d at 371.

^{140.} T. BERGIN, supra note 20, at 111.

^{141.} See infra text accompanying notes 171-84.

^{142.} See Town of Purcellville v. Potts, 179 Va. 514, 19 S.E.2d 700 (1942); Virginia Hot Springs Co. v. Hoover, 143 Va. 460, 130 S.E. 408 (1925); Town of Gordonsville v. Zinn, 129 Va. 542, 106 S.E. 508 (1921). See also Cook v. Seaboard Air Line Ry., 107 Va. 32, 57 S.E. 564 (1907).

^{143.} Carpenter v. Gold, 88 Va. 551, 553, 14 S.E. 329, 329 (1892).

^{144.} Town of Gordonsville v. Zinn, 129 Va. at 552, 106 S.E. at 511. (citing Anaheim Union Water Co. v. Fuller, 150 Cal. 327, ____, 88 P. 978, 980 (1907)).

^{145.} See 1971-72 Op. Va. Att'y Gen. 79; G. Baliles, Dissent to Report of the State Water Study Commission to the Governor and the General Assembly of Virginia of 1981, at 13 (1981).

area.¹⁴⁶ Therefore, the common law prohibition against the diversion is a direct threat to the successful implementation of the pipeline.

Although the diversion of water for use beyond riparian land is barred, a complainant may have to show actual, substantial injury before relief can be granted. "The diversion alone, without evidence of such damage, does not warrant a recovery even of nominal damages."¹⁴⁷ However, on more than one occasion, the Supreme Court of Virginia has held that a complainant may prove injury by demonstrating a threat to a reasonable future use.¹⁴⁸ The Court also has indicated that a diversion for use beyond riparian land alone would sustain a cause of action: "[A] diversion of a natural watercourse though without actual damage to a lower riparian owner, is an infringement of a legal right and imports damage, and that infringement a court of equity will prevent."¹⁴⁹

Thus, it is unclear what degree of damage must be shown in order to obtain relief against diversion. Conceivably, pipeline owners could divert water without repercussions. The riparian doctrine defines private rights and suit must be brought before a diversion is enjoined. If water resources are so abundant that lower riparian owners remain uninjured, the likelihood of litigation is small. This could be an expensive gamble for pipeline investors.

Most cases involving interbasin transfers were decided around the turn of the century. However, as recently as 1942, the Supreme Court of Virginia championed the rights of a single riparian owner, holding the diversion of water by a town for domestic use was prohibited.¹⁵⁰ The court suspended injunction so that the town could acquire the plaintiff's rights in a "lawful manner, that is, by condemnation proceedings."¹⁵¹ Had this procedure not been followed, the court appeared willing to see the town's water system dismantled — a system which was completed at a cost of $$87,000.^{152}$ The prohibition against interbasin transfers of water is the single most significant obstacle posed by the common law to the success of the pipeline.

150. Town of Purcellville v. Potts, 179 Va. 514, 19 S.E.2d 700 (1942).

152. Id. at 520, 19 S.E. at 702.

^{146.} See supra note 4.

^{147.} Virginia Hot Springs v. Hoover, 143 Va. at 467, 130 S.E. at 410 (citing Stratton v. Mount Hermon Boys' School, 216 Mass. 83, 103 N.E. 87 (1913)).

^{148.} See, e.g., Virginia Hot Springs v. Hoover, 143 Va. at 467, 130 S.E. at 410; Town of Gordonsville v. Zinn, 129 Va. at 560, 106 S.E. at 514.

^{149.} Town of Purcellville v. Potts, 179 Va. at 524, 19 S.E.2d at 704. See also Rankin v. Town of Harrisonburg, 104 Va. 524, 528, 52 S.E. 555, 556 (1906) (indicating that a riparian owner need not show injury to sustain a cause of action against one who impairs his rights).

^{151.} Id. at 524, 19 S.E. at 704.

V. GROUNDWATER ALLOCATION

A. Common Law

Groundwater is also a potential source of water supply for the pipeline¹⁵³ and its use has certain advantages over surface water supply. The conformation of underground sources in southwest Virginia is such that a withdrawal from one well generally will not interfere with the well of a neighbor.¹⁵⁴ Therefore, the potential for private litigation is reduced.

Although the availability of sufficient groundwater resources has not been researched in detail, the limited resources in the area generally are admitted.¹⁵⁵ Therefore, surface water is a more likely source of supply for the pipeline. Still, groundwater has not been ruled out as a potential water source, and an examination of Virginia law governing its allocation is useful.

Like surface water, groundwater is allocated among private proprietors according to common law. If underground water flows in an identifiable subterranean stream, it is governed by the same riparian rules that apply to surface water.¹⁵⁶ Where, however, water does not appear to flow in a well-defined channel, the water is presumed to be "the result of the ordinary percolations of water in the soil."¹⁵⁷

The common law in Virginia governing percolating groundwater is unclear. *Miller v. Black Rock Springs Improvement Co.*,¹⁵⁸ the single Virginia case dealing directly with groundwater allocation, suggests that Virginia follows the "English rule."¹⁵⁹ Under this rule, a landowner has the right to extract and consume unlimited quantities of the water collected beneath his land.¹⁶⁰ A neighbor whose water supply is fed from the same source cannot complain that his own water supply is damaged.¹⁶¹ The extracting landowner's right is absolute. "Such underground waters are as much the property of the owners of the land as the ores, rocks, etc. be-

^{153.} See supra note 17.

^{154.} T. BERGIN, supra note 20, at 200.

^{155.} See K. Drummond, supra note 3, at 3; O. Yucel, supra note 4, at 42.

^{156.} Henderson v. Wade Sand & Gravel Co., 388 So. 2d 900, 901 (Ala. 1980). See Miller v. Black Rock Springs Improvement Co., 99 Va. 747, 40 S.E. 27 (1901). For a general discussion of common law rights in groundwater, see Ausness, *supra* note 127, at 550-52.

^{157.} Couch v. Clinchfield Coal Corp., 148 Va. 455, 464, 139 S.E. 314, 316 (1927). See Henderson, 388 So. 2d at 901. The burden of proving that subterranean water flows in a welldefined stream is difficult. Proof must consist of observable facts on the surface. See, e.g., Miller, 99 Va. at 757, 40 S.E. at 30.

^{158. 99} Va. 747, 40 S.E. 27 (1901).

^{159.} Id. at 754, 40 S.E. at 29. See Couch v. Clinchfield Coal Corp., 148 Va. 455, 139 S.E. 314 (1927); Henninger v. McGinnis, 131 Va. 70, 108 S.E. 671 (1921).

^{160.} For a discussion of the English rule, see Hanks, *The Law of Water in New Jersey*, 22 RUTGERS L. REV. 621, 628-29 (1968).

^{161.} See, e.g., Miller, 99 Va. at 759, 40 S.E. at 31.

neath the soil."162

Although detractors of the English rule complain that its application discourages conservation, the rule has the advantage of certainty.¹⁶³ If the English rule is indeed the law in Virginia, pipeline operators may extract all the available groundwater beneath their land without repercussions from other landowners.

Despite the rule in *Miller*, dicta in several more recent cases imply that Virginia has adopted the "American rule" of groundwater allocation.¹⁶⁴ This rule permits the landowner to extract and consume an unlimited amount of water as long as the water is put to reasonable and beneficial use.¹⁶⁵ This appears to be only a slight variation of the English theme. However, the variation could prove a critical impediment to the operation of a pipeline. Many courts interpreting the American rule have held the removal of water for use beyond the overlying land to be reasonable unless it injures a landowner sharing the same water source.¹⁶⁶ Therefore, the application of the American rule in Virginia might prohibit the trans-

162. Id. at 760, 40 S.E. at 31.

165. Woodsum v. Township of Pemberton, 172 N.J. Super. 489, 412 A.2d 1064 (1980), aff'd, 177 N.J. Super. 639, 427 A.2d 615 (1981); Bayer v. Nello L. Teer Co., 256 N.C. 509, 124 S.E.2d 552 (1962); T. BERGIN, supra note 20, at 210.

Reasonable use is not defined in reference to the correlative rights of others. Woodsum, 172 N.J. Super at _____, 412 A.2d at 1071. The Supreme Court of Virginia apparently has rejected the correlative use rule. See, e.g., Miller, 99 Va. at 750, 40 S.E. at 28. For a general definition and discussion of the correlative use rule, see Woodsum, 172 N.J. Super at _____, 412 A.2d at 1071-72. "Reasonable use" is given a special and restricted meaning under the American rules. Wasteful use of water is "unreasonable only if it cause[s] harm, and any non-wasteful use of water that cause[s] harm [is] nontheless reasonable if it [is] made on or in connection with the overlying land." Henderson v. Wade Sand & Gravel Co., 388 So. 2d 900, 902 (Ala. 1980) (quoting RESTATEMENT (SECOND) OF TORTS § 857 (1979)).

166. For discussion of reasonable use under the American Rule, see *Woodsum*, 172 N.J. Super. at _____, 412 A.2d at 1076.

For uses held to be reasonable, see Finley v. Teeter Stone Co., 251 Md. 428, 248 A.2d 106 (1968) (holding that pumping of percolating waters incident to operation of a quarry is a reasonable use); Bayer v. Nello L. Teer Co., 256 N.C. 509, 124 S.E.2d 552 (1962) (no liability for operation of rock quarry, according to best practices of open pit mining, resulting in damage to adjacent landowner's well). But see Sloss-Sheffield Steel & Iron Co. v. Wilkes, 231 Ala. 511, 165 So. 764 (1936) (applying the "reasonable use" rule), overruled by Henderson v. Wade Sand & Gravel Co., 388 So. 2d 900 (Ala. 1980) (Where defendant reasonably removed groundwater from a quarry, causing land under plaintiffs' houses to sink, the American "reasonable use" rule would not be applied to insulate defendant's conduct. Defendant's liability instead was measured by principles of nuisance law.).

^{163.} T. BERGIN, supra note 20, at 210-11.

^{164. &}quot;Mining operations, being a reasonable use of land, do not, in general, make one carrying on such operations liable because percolating waters are intercepted or drawn away so as to destroy or injure springs or wells belonging to the owner of the surface or of adjoining lands." Oakwood Smokeless Coal Corp. v. Meadows, 184 Va. 168, 176, 34 S.E.2d 392, 396 (1945). See also Clinchfield Coal Corp. v. Compton, 148 Va. 437, 452, 139 S.E. 308, 313 (1927) (stating that the trend of modern opinion is in favor of the American "reasonable use" rule).

fer of water upon which the pipeline depends, should adjoining landowners be injured. In the event of litigation, it is difficult to predict which rule the court will adopt. Yet, the application of the American rule clearly could impede the successful operation of the pipeline.

B. The Groundwater Act of 1973

The Groundwater Act of 1973¹⁸⁷ could also impact upon the pipeline. This Act empowers the State Water Control Board to declare an area a "groundwater management area" when resources are seriously depleted or threatened. When an area is so designated, a permit system of water allocation is established.¹⁶⁸

Under the system, priority is given to domestic and agricultural consumption, as well as to single commercial purposes using fifty thousand gallons or less each day. No permits are required for these uses.¹⁶⁹ Although the rights of those already applying groundwater to beneficial uses will be preserved, their permits will limit extraction to the amount withdrawn on the day of declaration or on any day two years before.¹⁷⁰

Groundwater resources in southwest Virginia are not abundant. If the area is deemed a water management area, permit requirements could impact pipeline water supplies. If pipeline needs increase, or if preferred uses restrict the resources available for pipeline use, groundwater would become a nonviable source of water supply.

VI. PROPOSED LEGISLATION AND THE "TAKING" ISSUE

A. Proposed Legislation

Common law obstacles should be surmounted before the coal slurry pipeline is implemented. However, recent proposed pipeline legislation does nothing to resolve potential conflicts over water supply. The Virginia Coal Pipeline Act,¹⁷¹ offered in January 1983, would have compelled pipeline operators to comply with existing laws governing the transfer, use, and discharge of water.¹⁷² Pipeline water supplies might be secured by granting pipeline certificate holders the exercise of eminent domain over water rights. However, the Pipeline Act provided only for the exercise of eminent domain over private rights in land. This proposal also specifically denied a certificate holder the right to acquire, by eminent domain, "any

^{167.} VA. CODE ANN. §§ 62.1-44.83 to -44.107 (Repl. Vol. 1982).
168. Id. § 62.1-44.95.
169. Id. § 62.1-44.87.
170. Id. § 62.1-44.93.
171. H.B. 262, 1983 Va. Gen. Assem. §§ 56-531 to -545. (withdrawn in committee).
172. Id. §§ 56-534, -539.

right to take, use, or develop water resources."173

Other legislation, not specifically related to pipeline implementation, has been proposed which would remove obstacles posed by common law water rights. The Interbasin Transfer Act,¹⁷⁴ offered to the Virginia House of Delegates in 1982, would have empowered the State Water Control Board to grant permits for interbasin transfers of water. In addition, the State Water Control Board approved a draft Water Code¹⁷⁵ for consideration by the General Assembly which proposed alterations in water resource allocation. These changes included legal authorization for interbasin transfers¹⁷⁶ and a permit system for surface and groundwater allocation.¹⁷⁷ Both the draft Code and Interbasin Transfer Act were withdrawn from consideration in committee.¹⁷⁸

The General Assembly established a joint subcommittee in 1982 to consider the desirability of allowing the development of coal slurry pipelines in Virginia.¹⁷⁹ Legislation was introduced, but not passed, in 1984 to authorize coal slurry pipelines,¹⁸⁰ but the legislation failed to address water allocation issues or the removal of restrictions against interbasin transfers of water.¹⁸¹

Certainly the Commonwealth has the right to modify or reject common law riparian rights when they are "unsuited to the conditions of the state."¹⁸² However, such modification of state law requires recognition of vested water rights.¹⁸³ The uncertainty of the state's power to impair

174. H.B. 503, 1982 Va. Gen. Assem. §§ 62.1-197 to -207.

- 176. H.B. 1420, 1981 Va. Gen. Assem. § 62.2-40.
- 177. Id. §§ 62.2-36 to -53.
- 178. 1981 HOUSE JOURNAL 1290; 1982 HOUSE JOURNAL 1617.
- 179. H.J. Res. 117, 1982 Va. Acts 1296.
- 180. H.B. 479, 1984 Va. Gen. Assem.
- 181. See, e.g., O. Yucel, supra note 4, at 46.

182. Baumann v. Smrha, 145 F. Supp. 617, 624 (D. Kan. 1956), aff'd per curiam, 352 U.S. 863 (1956) (holding that the state could modify or reject the riparian doctrine and put in its place the doctrine of prior appropriation and application to beneficial use, so long as water rights of landowners acquired before the Act were recognized and protected). See also Robinson v. Ariyoshi, 441 F. Supp. 559, 584 (D. Hawaii 1977) (A state may change property laws relating to riparian rights of land owners but has a concomitant obligation to compensate landowners whose property is taken thereby.).

183. Robinson v. Ariyoshi, 441 F. Supp. 559 (D. Hawaii 1977).

^{173.} Id. § 56-537. Interests in water, as well as in land, are subject to the law of eminent domain. See, e.g., Jeter v. Vinton-Roanoke Water Co., 114 Va. 769, 76 S.E. 921 (1913); See also Clear Creek Water Co. v. Gladeville Improvement Co., 107 Va. 278, 58 S.E. 586 (1907) (holding that an upstream public service water company may condemn and divert a running stream for its own purposes, subject to just compensation of downstream riparian users).

^{175.} VIRGINIA WATER RESOURCES RESEARCH CENTER, A WATER CODE FOR VIRGINIA (1980) [hereinafter cited as WATER CODE]. The State Water Study Commission offered the draft for general study to the General Assembly. The draft provided three alternative codes: Alternatives A, B, and C. Alternative C, entitled the Virginia Water Law, was introduced separately by Delegate McClannan as H.B. 1420, 1981 Va. Gen. Assem. §§ 62.2-1 to -116.

these rights without "just compensation" accounts for much of the opposition to these measures.¹⁸⁴

B. Impairment of Riparian Rights

Authors of the draft Water Code relied upon the "public trust doctrine"¹⁸⁵ in justifying the proposals. According to this doctrine, the state owns the water within its boundaries and holds it in trust for the public, who "have a right to have the waters protected for their use."¹⁸⁶ Even if Virginia has adopted the public trust doctrine,¹⁸⁷ state ownership of navigable waters is insufficient justification for the abrogation of vested water rights.

Riparian rights do not arise from ownership of the water but from the usufructuary right to extract it.¹⁸⁸ Admittedly, riparian rights are subordinate to the state and federal governments' rights to improve navigation.¹⁸⁹ Barring this limitation, however, riparian rights apply equally to navigable and non-navigable streams.¹⁹⁰ Virginia courts long ago reconciled the co-existence of riparian rights and state ownership of navigable waters.¹⁹¹

186. 1 WATER CODE, supra note 175 at 1.

187. Virginia's position on the public trust doctrine is not at all clear. The Virginia Constitution states: "The natural oyster beds, rocks and shoals in the waters of the Commonwealth shall not be leased, rented, or sold but shall be held in trust for the benefit of the Commonwealth. . . ." VA. CONST. art. XI, § 3. An expansive reading of this section may lead to the conclusion that all natural resources are held in trust. For commentary on this debate, see 2 WATER CODE, *supra* note 175, at E-25 to E-27. See also Bradford v. Nature Conservancy, 224 Va. 181, 294 S.E.2d 886 (1982) (stating that title to certain beaches and marshlands on the Eastern Shore of Virginia is vested in the State, subject to the public's right to use the lands for hunting, fishing, and fowling); Darling v. City of Newport News, 123 Va. 14, 96 S.E. 307 (1918), *aff'd*, 249 U.S. 540 (1919) (stating that the state owns and controls the waters and beds of navigable salt waters for the use and benefit of the public). 188. See supra notes 126-27 and accompanying text.

189. The navigational servitude derives from the constitutional power to regulate commerce. "The owner's use of property riparian to a navigable stream long has been limited by the right of the public to use the stream in the interest of navigation." United States v. Kansas City Life Ins. Co., 339 U.S. 799, 808 (1950). See Kaiser Aetna v. United States, 444 U.S. 164 (1979); United States v. Twin City Power Co., 350 U.S. 222 (1956).

190. The riparian proprietor's rights in a navigable stream include: (1) access to the navigable portion of the stream (including the right to build a wharf or pier subject to state regulation), (2) the right to accretions or to alluvium, and (3) "the right to make reasonable use of the water as it flows past or leaves the land." Taylor v. Commonwealth, 102 Va. 759, 773, 47 S.E. 875, 880-81 (1904). However, these rights are subordinate to the government's authority over navigation. *Id.* at 766, 47 S.E. at 878. *See also* 1972 Op. Va. Att'y Gen. 79 (stating that riparian doctrine applies to navigable as well as non-navigable streams).

191. "[T]he navigable waters and the soil under them within the territorial limits of a

^{184.} See G. BALILES, supra note 145, at 14. See also U.S. CONST. amend. V; VA. CONST. art. I, § 11.

^{185.} See 1 WATER CODE, supra note 175, at 1. For a detailed history of the public trust doctrine, see 2 WATER CODE, supra note 175, at E-3.

It is arguable that water allocation legislation is a valid exercise of the state's regulatory power¹⁹² which would not require compensation for impaired riparian rights. Article XI of the Virginia Constitution states: "[I]t shall be the Commonwealth's policy to protect its atmosphere, lands, and waters from pollution, impairment or destruction, for the benefit, enjoyment, and general welfare of the people of the Commonwealth."¹⁹³

Moreover, legislation is already in effect which impairs riparian rights. At common law, an upper riparian owner could pollute the water to the extent that he did not "substantially impair its value for the ordinary purposes of life."194 The State Water Control Law, 195 however, abrogates this right to degrade water quality and requires that all water uses which pollute (or may pollute) state waters be approved by the State Water Control Board.^{196.} The Supreme Court of Virginia has held that this abrogation of a common law right is a valid exercise of the state's regulatory power and does not effect a taking.¹⁹⁷ The State Water Control Law, however, does not impose severe restrictions on riparian rights. Although the law regulates pollution standards and approves purification techniques.¹⁹⁸ it does not "disturb the owner in the control or use of his property for lawful purposes, nor restrict his right to dispose of it."199 Rather, it stipulates that present and anticipated use of waters will be preserved and protected.²⁰⁰ Therefore, the constitutionality of the State Water Control Law does not set precedence for more severe impairments of riparian rights.²⁰¹

192. For a detailed discussion of the state's regulatory power, see Sax, Takings and the Police Power, 74 YALE L.J. 36 (1964).

193. VA. CONST. art. XI, § 1 (1971).

194. Panther Coal Co. v. Looney, 185 Va. 758, 764, 40 S.E.2d 298, 301 (1946) (quoting 1 H. WOOD, NUISANCES § 427 (3d ed. 1881), *quoted in* Trevett v. Prison Ass'n of Va., 98 Va. 332, 336, 36 S.E. 373, 376 (1900)). See also Shoffner v. Sutherland, 111 Va. 298, 68 S.E. 996 (1910).

195. VA. CODE ANN. §§ 62.1-44.2 to -44.34:7 (Repl. Vol. 1982).

196. Id. §§ 62.1-44.4, -44.5.

197. Commonwealth ex rel State Water Control Bd. v. County Utils., 223 Va. 534, 542, 290 S.E.2d 867, 872 (1982).

198. VA. CODE ANN. §§ 62.1-44.15 to -44.17 (Repl. Vol. 1982).

199. Mugler v. Kansas, 123 U.S. 623, 669 (1887).

200. VA. CODE ANN. § 62.1-44.4 (Repl. Vol. 1982).

state, are the property of the state, to be controlled by the state, in its own discretion for the benefit of the people of the state. . . ." *Taylor*, 102 Va. at 770, 47 S.E. at 879. But the riparian owner "is certainly entitled to the rights of . . . [one] whose land is bounded by a navigable stream. . . ." *Id.* at 771, 47 S.E. at 880 (quoting Yates v. City of Milwaukee, 77 U.S. 497, 504 (1870)). *See also* Oliver v. City of Richmond, 165 Va. 538, 178 S.E. 48 (1936); Darling v. City of Newport News, 123 Va. 14, 96 S.E. 307 (1918).

^{201.} The State Conservation of Water Resources Act empowers the State Water Control Board to plan, develop, conserve, and utilize Virginia's water resources. VA. CODE ANN. §§ 62.1-44.35 to -44.44 (Repl. Vol. 1982). Yet, it warns that nothing in the chapter "shall be construed as altering, or as authorizing any alteration of, any existing riparian rights or other vested rights in water or water use." Id. § 62.1-44.44(b).

Certainly riparian rights enjoy a legally protected status. Over the years, the Supreme Court of Virginia has upheld the riparian doctrine and thwarted attempts by local governments to impair riparian rights without just compensation.²⁰² The impact of the proposed coal slurry pipeline legislation on these judicially recognized rights remains to be considered.

Only a reviewing court can determine whether legislation rises to the level of a taking. The court must consider: (1) the legal recognition of the property right claimed;²⁰³ (2) the economic impact of the regulation on the claimant, "particularly the extent to which the regulation has interfered with distinct investment-backed expectations;"²⁰⁴ and (3) the character of the governmental action.²⁰⁵

Generally a statute which merely diminishes the value of property rights will not be considered a "taking."²⁰⁶ The Supreme Court of Virginia has held that "no taking occurs . . . unless the regulation interferes with all reasonable beneficial uses of the property taken as a whole."²⁰⁷ A water permit system could be implemented and an interbasin transfer allowed without total destruction of the value of the riparian land itself. However, when considering the constitutionality of measures impairing riparian rights, it is important to recall that riparian rights are alienable and severable.²⁰⁸ They not only enhance the value of riparian land but enjoy a legally recognized status of their own.²⁰⁹ Therefore any legislation must be examined in light of the injury to the usufruct itself.

A permit system of water allocation which re-orders rights to use of

207. Commonwealth ex rel. State Water Control Bd. v. County Utils., 223 Va. at 534, 290 S.E.2d at 892 (citing Penn Cent. Transp. Co. v. New York City, 438 U.S. 104 (1978)).

208. See supra note 139 and accompanying text.

^{202.} See Town of Purcellville v. Potts, 179 Va. 514, 19 S.E.2d 700 (1942); Hite v. Town of Luray, 175 Va. 218, 8 S.E.2d 369 (1940); Taylor v. Commonwealth, 102 Va. 759, 47 S.E. 875 (1904).

^{203.} Economic interests must be legally protected proprietary interests if they are to be protected by the Constitution. See Penn Cent. Transp. Co. v. New York City, 438 U.S. 104, 125 (1978); United States v. Willow River Power Co., 324 U.S. 499, 505 (1945). The nature and extent of property rights are determined by state judicial decisions and statutes. See Fox River Paper Co. v. Railroad Comm'n of Wis., 274 U.S. 651, 655 (1927). See also Reedy v. Mullins, 456 F. Supp. 955, 957 (W.D. Va. 1978) (holding that municipal fire protection is not a property right); Kohler v. Hirst, 460 F. Supp. 412, 415 (E.D. Va. 1978) (holding that state law governs whether city government constitutes a property interest).

^{204.} Penn Cent. 438 U.S. at 124.

^{205.} Id.

^{206.} Id. at 131.

^{209.} Each riparian proprietor owns an interest in the power furnished by a stream flowing through or by his land. See Rankin v. Town of Harrisonburg, 104 Va. 524, 52 S.E. 555 (1905). "It has long been assumed, and specifically recognized in Virginia that riparian rights may be severed from the land to which they are appurtenant and dealt with separate and apart therefrom." Thurston v. City of Portsmouth, 205 Va. 909, 912, 140 S.E.2d 678, 680 (1965).

surface water may be more than mere regulation. Such a measure could destroy the riparian owner's control or use of the usufruct as well as his right to dispose of it.²¹⁰ The denial of a permit to continue existing riparian uses could destroy the distinct investment-backed expectations of the proprietor. Similarly, if an interbasin transfer severely limits the water available for existing riparian uses, the authorizing legislation could effect the "complete destruction" of the usufruct.²¹¹

It is impossible to predict the outcome of litigation on this issue. The United States Supreme Court has failed to lay down a clear principle in this area, acknowledging only "that 'no rigid rules' or 'set formula[s]' are available to determine where regulation ends and taking begins."²¹² However, in view of the consistent protection provided riparian rights by Virginia courts, severe alterations of the riparian interests are likely to require compensation.

C. Impairment of Common Law Groundwater Rights

A re-structuring of groundwater rights by a comprehensive permit system is less likely to constitute a taking. Like surface water riparian rights, common law rights in groundwater are usufructuary.²¹³ Unlike riparian rights, they are not well-defined and established.²¹⁴ There is no indication that groundwater rights are alienable or severable or that the usufruct itself enjoys a legally recognized status.²¹⁵ The landowner, like other overlying proprietors, may capture as much water as he likes, but he has no legal remedy against a neighbor who exhausts common supplies.²¹⁶ Unlike the riparian proprietor who owns an interest in the power of a stream, the landowner has no proprietary interest in the size and quantity of underlying resources.

Limited case law suggests that the subterranean water is merely a part of the surrounding soil, unless the water is shown to be "flowing in de-

^{210.} See Mugler, 123 U.S. at 667-68.

^{211.} See Pennsylvania Coal Co. v. Mahon, 260 U.S. 393, 414-15 (1922) (holding that mining regulations amounted to a "taking" since they made the mining of certain coal commercially impracticable and thus virtually destroyed the reserved right to mine it).

^{212.} Sax, supra note 192, at 37 (quoting United States v. Caltex, Inc., 344 U.S. 149, 156 (1952) and Goldblatt v. Town of Hempstead, 369 U.S. 590, 594 (1962)).

^{213.} Woodsum v. Township of Pemberton, 172 N.J. Super 489, ____, 412 A.2d 1064, 1075 (1980).

^{214.} Miller v. Black Rock Springs Improvement Co., 99 Va. 747, 755, 40 S.E. 27, 30 (1901).

^{215. &}quot;As no correlative rights exist between proprietors of adjacent lands with respect to percolating waters, the doctrine . . . which presupposes the existence of a legal right which can be injuriously affected, has no application in the determination of the right to use such waters." Couch v. Clinchfield Coal Corp., 148 Va. 455, 462, 139 S.E. 314, 315 (1927) (quoting Acton v. Blundell, 152 Eng. Rep. 1223 (1843)).

^{216.} See supra notes 159-62 and accompanying text.

fined or known channels."²¹⁷ Consequently, the right to extract groundwater is only a part of the right to use the land. Therefore, regulatory legislation abrogating groundwater rights would be examined only in light of its effect on the value of the overlying property.²¹⁸ If the land remains useful for some purpose without access to the groundwater, the legislation is not likely to be considered a "taking." A permit system of water allocation would only restrict a landowner's use of his property; it would not deprive the land of all beneficial uses. In the future, courts may expand or clarify groundwater rights. In view of existing common law, a permit system of groundwater allocation probably would be a valid exercise of the state's regulatory power.

VII. CONCLUSION

As the Virginia General Assembly faces the question of whether to authorize coal slurry pipeline construction, the issues of eminent domain and water allocation must be resolved. Eminent domain is a power not lightly exercised. The public use requirement is a means of balancing fundamental beliefs in the inherent primacy of private property rights²¹⁹ against evolving conceptions of public benefit. From mill dams to power plants, each new wave of industrial technology has mandated a reassessment of the public use requirement. The existing standard appears to liberally interpret public use as synonomous with public benefit. Whether coal slurry pipelines meet that standard can best be determined by objective analysis of advantages and disadvantages on a site-specific, case by case basis. The guidelines set out in Virginia case law offer one approach.²²⁰ If coal slurry pipelines pass the public use test, then slurry pipeline companies should be given the power of eminent domain. Since it appears railroads will persist in refusing to share their rights of way, failure to grant eminent domain to slurry companies will delay, if not preclude, the development of an alternative coal transportation system.

The common law in Virginia governing water allocation will also pose obstacles to the successful implementation of a coal slurry pipeline. Pipeline proponents have correctly stressed the need for comprehensive changes in water resource allocation and the removal of restrictions

^{217.} Miller, 99 Va. at 754, 40 S.E. at 30.

^{218.} See Penn Cent. Transp. Co. v. New York City, 438 U.S. 104, 130-31 (1978) (stating that the Court focuses on the interference with rights in the parcel as a whole).

^{219.} Fallsburg & Co. v. Alexander, 101 Va. 98, 101, 43 S.E. 194, 195-96 (1903).

^{220.} See supra note 64 and accompanying text. An analogous approach has been suggested by a recent law review comment. The approach considers five factors in assessing public use: (1) government goals to be accomplished by the taking; (2) community interest in existing use; (3) community interest in proposed use; (4) condemner's role in initiating the taking; and (5) condemnee's interest. Comment, Public Use, Private Use, and Judicial Review in Eminent Domain, 58 N.Y.U. L. REV. 409, 445-55 (1983).

against interbasin transfers of water. However, the prospects for farreaching changes in present water law are not promising. Older judicial decisions and recent water legislation warn against impairment of private water rights. Legislative proposals which would have adversely affected these rights have not been well received. The spectre of the "taking" issue discourages abrogation of common law doctrines. As the General Assembly studies the feasibility of pipeline proposals, members should address the problems posed to water supply by existing laws governing water allocation. Any future pipeline legislation must provide solutions to the problems posed by the common law.

> Mary Kathleen Martin Laurie L. Riddles