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COMMENT

LEGAL PLANNING FOR THE TRANSFER OF WATER BETWEEN RIVER BASINS: A PROPOSAL FOR THE ESTABLISHMENT OF THE INTERBASIN TRANSFER COMMISSION

The problem of water quantity in the United States is not one of total supply but one of supply in particular areas. Interbasin transfer is a promising way of augmenting local supplies of good water,¹ but widespread interbasin transfer is seldom accomplished in the United States,² and its mere planning provokes ferocious opposition.³ The Secretary of the Interior is barred from investigating all of its possibilities,⁴ and river basin commissions, authorized by the Water Resources Planning Act of 1965,⁵ may plan such transfers only within the

¹ Aulenbach, *Water—Our Second Most Important Natural Resource*, 9 B.C. IND. & COM. L. REV. 535, 548 (1968). See also WATER RESOURCES COUNCIL, *THE NATION'S WATER RESOURCES—SUMMARY REPORT 5-1-7* (1968); Piper, *Water-Supply Stringencies—Features, Antecedents and Obstacles to Resolution*, 9 B.C. IND. & COM. L. REV. 633, 633-34 (1968). Water re-use, desalination, weather modification, and water salvage are alternatives.

² Interbasin transfer is not completely unknown in the United States. For example, under the Colorado River Storage Project Act of 1956, 43 U.S.C. § 620 (1964), the Colorado River is the source of substantial interbasin transfer within the upper basin states. *Trelease, Arizona v. California: Allocation of Water Resources to People, States and Nation*, 1963 SUPREME COURT REV. 158, 163. The California State Water Plan is an example of intrastate interbasin transfers of surplus water. CAL. WATER CODE §§ 10000-12875 (West 1956). See also Warne, *California Pioneers New Water Development Concepts*, 2 NATURAL RESOURCES J. 248 (1962). Other intrastate transfers include the proposed "big ditch" or Texas Basin Project (Johnson, *Transbasin Diversion of Water*, 43 TEXAS L. REV. 1035 (1965)) and the transmountain diversions in Colorado (see Comment, *Foreign Water in Colorado—The City's Right to Recapture and Re-Use Its Transmountain Diversion*, 42 DENVER L.C.J. 116 (1965)). Interstate programs of great magnitude include the proposed diversion of Mississippi River water to Texas (Tyler, *Water Law in Terms of Planning a Future for West Texas*, 31 TEXAS B.J. 365 (1968)) and the proposed diversion of water from northern Canada into the Western United States (Piper, *supra* note 1, at 634).

³ Clark, *Northwest-Southwest Water Diversion—Plans and Issues*, 3 WILLAMETTE L.J. 215, 228-30 (1965). For an early criticism of interbasin transfer, see Bruncken, *The Chicago Water Diversion*, 13 MARQ. L. REV. 191, 198 (1929).

⁴ [F]or a period of ten years from [September 30, 1968], the Secretary shall not undertake reconnaissance studies of any plan for the importation of water into the Colorado River Basin from any other natural river drainage basin lying outside the states [lying in whole or in part within the basin]. Colorado River Basin Project Act of 1968, § 201, 43 U.S.C. § 1511 (Supp. IV, 1969).

⁵ 42 U.S.C. § 1962-1(d) (Supp. IV, 1969).

basins of their jurisdiction.⁶ In effect, there is no integrated approach to water resources management.⁷

The lawyer's basic role with respect to interbasin transfers is to facilitate a project found to be politically acceptable,⁸ technically feasible, and economically sound. This role really has two parts. One is to overcome existing legal obstacles to a particular project.⁹ The other, more far-reaching, is to create a revised or completely new system of legal doctrines that provides a hospitable legal environment for the proper allocation of water resources. The anticipated result should be evaluated by asking two questions: "Does the law adequately protect private investment?" and "Does it give sufficient consideration to the public interest in optimum water use?"¹⁰

⁶ It appears that the practical effect of this restraint on river basin commissions is to restrain other agencies as well, since their water plans must be channeled through the commissions before reaching the National Water Resources Council. Johnson, *supra* note 2, at 1053.

⁷ The National Water Resources Council, created by the Water Resources Planning Act of 1965, § 101, 42 U.S.C. § 1962a (Supp. IV, 1969), was intended to unite planning efforts. Planning goals, however, are framed with reference to river basins, which may not be the best planning units. See Forer, *Water Supply: Suggested Federal Regulation*, 75 HARV. L. REV. 332, 339-40 (1961); Hufschmidt, *Research on Comprehensive Planning of Water-Resource Systems*, 5 NATURAL RESOURCES J. 223, 228-29 (1965); Johnson, *supra* note 2, at 1058; Trelease, *supra* note 2, at 166. In addition, the National Water Commission, which is to investigate interbasin transfers, is merely a planning rather than a management agency. National Water Commission Act § 3(a)(1), 82 Stat. 868 (1968).

⁸ "Political consequences attach to any proposal which would level off natural advantages under the guise of supplying the social and economic needs of areas characterized by a natural disadvantage." Weatherford, *Legal Aspects of Interregional Water Diversion*, 15 U.C.L.A.L. REV. 1299, 1301 (1968). While cooler heads may advocate state cooperation and participation in planning the allocation and use of our nation's water resources (Corker, *Save the Columbia River for Posterity or What Has Posterity Done for You Lately?*, 41 WASH. L. REV. 838, 842 (1965); Trelease, *Water Rights of Various Levels of Government—States' Rights vs. National Powers*, 19 WYO. L.J. 189 (1965)), states often remain so intransigent that even multi-purpose federal projects are dependent on sheer political power for their approval (Comment, *Problems in Interbasin Water Transfer*, 1 CALIF. WEST. L. REV. 136, 149 (1965)) in spite of the general restraint and evenhandedness practiced by the federal government. Harnsberger, *Eminent Domain and Water Law*, 48 NEB. L. REV. 325, 452 (1969).

⁹ Former Secretary of the Interior Udall has stated:

Increasingly we will turn to the lawyers for implementation of plans to improve the quality of the environment. Technology has opened vast possibilities for future action—the lawyers must be prepared to find ways for taking the action. This requires, first, a searching reexamination of existing problems and existing solutions.

Udall, *Introduction: Water Use—A Symposium*, 9 B.C. IND. & COM. L. REV. 531, 532 (1968).

¹⁰ Plager, *Some Observations on the Law of Water Allocation as a Variable in Industrial Site Location*, 1968 WIS. L. REV. 673, 690. Dean Trelease puts it a bit differently in a water law professor's credo:

[W]ater law should provide for maximum benefits from the use of the resource,

I

EXISTING RIGHTS IN SOURCE BASIN

A. *Traditional Water Law*

Traditional water law presents substantial pitfalls for planners unaware of its ad hoc judicial and piecemeal statutory development. Reduction of the total amount of available water in the source basin resulting from an interbasin transfer project may injure or even eradicate individual water rights,¹¹ and the owners may demand compensation. State law is therefore an important factor in project cost.¹²

and this end should be reached by means of granting private property rights in water, secure enough to encourage development and flexible enough for economic forces to change them to better uses, and subject to public regulation only when private economic action does not protect the public interests.

Trelease, *Policies for Water Law: Property Rights, Economic Forces, and Public Regulation*, 5 NATURAL RESOURCES J. 1, 2 (1965).

¹¹ Interbasin transfer may be affected by other rights in the source basin, such as the economy of the lower portion of the basin (e.g., fisheries or business) and the public enjoyment of recreational and scenic values. Johnson, *supra* note 2, at 1059; Moses, *What Happened to Multiple-Purpose Resource Development? A Plea for Reasonableness*, 3 LAND & WATER L. REV. 435 (1968).

Although substantial political problems arise in allocating water between water supply and other demands (Kasperson, *Political Behavior and the Decision-Making Process in the Allocation of Water Resources Between Recreational and Municipal Use*, 9 NATURAL RESOURCES J. 176 (1969)), the demand for water for recreational purposes is certainly increasing. Note, *Fishing and Recreational Rights in Iowa Lakes and Streams*, 53 IOWA L. REV. 1322 (1968). If this demand is satisfied in the source basin by multi-purpose interbasin transfer project works, provision must be made to control users so as not to interfere unreasonably with the rights of others. Comment, *The Tale of Two Lakes—A New Chapter in Washington Water Law*, 43 WASH. L. REV. 475 (1967).

The physical construction and presence of the diversion works in the source basin may degrade the natural beauty and ecological balance of the site area, the area submerged and its environs, and the basin as a whole downstream of the diversion. For example, salt water intrusion resulting from reduced hydraulic force at the mouth of the basin may affect private water rights. Gindler & Holbert, *Water Salinity Problems: Approaches to Legal and Engineering Solutions*, 9 NATURAL RESOURCES J. 329, 362 (1969).

Conservationists can present major obstacles to interbasin transfer. Clark, *supra* note 3, at 230-32. In addition to the increasingly popular class action, there is a growing belief that individuals may have a constitutional right to a decent environment. See generally Roberts, *The Right to a Decent Environment; E = MC²: Environmental Equals Man Times Courts Redoubling Their Efforts*, 55 CORNELL L. REV. 674 (1970).

¹² Farnham, *The Improvement and Modification of New York Water Law Within the Framework of the Riparian System*, 3 LAND & WATER L. REV. 377, 379-80 (1968).

Because unexpected fluctuations in project cost can be disruptive, before federal assistance is given to some state projects, the state must determine if any private water rights will be violated. Watershed Protection and Flood Prevention Act § 4(1), 16 U.S.C. § 1004(1) (1964); Small Reclamation Projects Act of 1956, § 4, 43 U.S.C. § 422 (1964).

Finances are not the only consideration affected by water rights. If private rights are violated (or are in danger of being violated), private parties armed with an

Alternatively, good planning may leave those rights intact¹³ and eliminate the need for compensation.¹⁴ Before rights can reliably be determined, however, the substantial uncertainties existing in many state-created systems of water rights¹⁵ must be eliminated, either through comprehensive, up-to-date studies of water law in each state¹⁶ or through legislative reform.

1. *Stream Water*

In general, rights to the use of above-ground stream water are determined under one of two doctrines: prior appropriation, used in the arid and semi-arid western states, or riparian, used principally in the humid eastern states.¹⁷ Each doctrine, however, has at least two variations, and there is only general uniformity among jurisdictions adhering to a given doctrine.¹⁸ Furthermore, a number of states on the Pacific Coast, in the Southwest, and in the Midwest have adopted both doctrines.¹⁹

Under the natural flow version of the riparian doctrine, the riparian owner is entitled to the continued and undiminished flow of the stream through or past his property.²⁰ When the flow is reduced, he is harmed, regardless of whether he needs the water. Water subject to these rights is among the least attractive for use in interbasin transfer, because interbasin transfer necessarily reduces the flow of water downstream.

injunction may block the project. Even though the superior social value of the diversion project over the continuance of unimpaired private rights reduces the likelihood of the injunction's being granted, the uncertainty involved may be enough to discourage diversion project initiation.

¹³ Farnham, *supra* note 12, at 379.

¹⁴ Waite, *Beneficial Use of Water in a Riparian Jurisdiction*, 1969 WIS. L. REV. 864, 882-83.

¹⁵ Farnham, *supra* note 12, at 378.

¹⁶ A good example is Hanks, *The Law of Water in New Jersey, Part I*, 22 RUTGERS L. REV. 621 (1968).

¹⁷ VI-A AMERICAN LAW OF PROPERTY § 28.55 (A. Casner ed. 1954) [hereinafter cited as LAW OF PROPERTY].

¹⁸ In some states it is unclear what version of the riparian doctrine is in force. Plager, *supra* note 10, at 683-84. Over thirty years ago the American Law Institute reported:

A few courts adopt the full Natural Flow theory, while a few others completely adhere to the Reasonable Use theory. Most courts, either not realizing that there are two distinct theories or not fully grasping their fundamental differences, attempt to apply both theories, with results that are not only illogical but weirdly inconsistent at times.

RESTATEMENT OF TORTS, Scope Note to Topic 3, ch. 41, at 346 (1939).

¹⁹ VI-A LAW OF PROPERTY § 28.58.

²⁰ 5 R. POWELL, REAL PROPERTY ¶ 711 (1968) [hereinafter cited as POWELL].

The reasonable use version, on the other hand, does not guarantee the riparian owner the full flow of the watercourse.²¹ He is entitled to use the available water, but only in a way reasonable in light of all the circumstances, which include the amount of water available and the social value of competing uses. An interbasin transfer would usually be considered a use of great social value, but the definition of reasonableness varies with time and among jurisdictions;²² a transfer considered reasonable at one time or in one jurisdiction may be unreasonable later or under identical circumstances in another state. In addition, there may be preferred uses, such as satisfying domestic requirements or diluting effluent,²³ that will always be allowed priority over interbasin transfers.

Under the reasonable use doctrine, since a riparian owner is not harmed by a reduction in flow that does not interfere with his reasonable use, interbasin transfers of *surplus* water appear non-actionable. Once non-surplus water is used, however, the use must be reasonable and may have to be on "riparian land" or within the watershed of the stream.²⁴ Although land is "riparian" if it merely touches the stream,²⁵ the extent of the riparian tract²⁶ is so limited that interbasin transfer is effectively impossible. A watershed limitation also eliminates interbasin transfer,²⁷ but in some states water use is not limited to the watershed.²⁸

²¹ *Id.* ¶ 712.

²² "Among other things, reasonableness is judged upon the size of the watercourse, general usage and custom in the locality and the fact that other riparian owners have like right of use." W. BURBY, *REAL PROPERTY* 53 (3d ed. 1965) (footnote omitted). *See also* 5 POWELL ¶ 712; 3 H. TIFFANY, *REAL PROPERTY* § 724 (3d ed. 1939); VI-A *LAW OF PROPERTY* § 28.57.

²³ Waite, *supra* note 14, at 876-77.

²⁴ J. SAX, *WATER LAW, CASES AND COMMENTARY* 113 (Prelim. ed. 1965) [hereinafter cited as SAX].

²⁵ W. BURBY, *supra* note 22, at 50.

²⁶ Generally, "riparian land" includes

all land which belongs to the owner of land immediately abutting on the stream, and not entirely separated from the latter by land belonging to another. . . . It has [however] been said that land which was not within the same entry, for the purpose of acquisition from the government, or not within the same original survey as the land immediately bordering on the stream, could not be regarded as riparian. And in California there are suggestions that if one who owns land abutting on the stream subsequently acquires land abutting on such land but not on the stream, such after acquired land is not to be regarded as riparian land.

H. TIFFANY, *supra* note 22, at § 727 (footnotes omitted).

²⁷ Murphy, *A Short Course on Water Law for the Eastern United States*, 1961 WASH. U.L.Q. 93, 114.

²⁸ *See, e.g.*, Poire v. Serra, 106 A.2d 391 (N.H. 1954); Smith v. Stenolina Oil & Gas Co., 197 Okla. 499, 172 P.2d 1002 (1946); Kasuba v. Graves, 109 Vt. 191, 194 A. 455 (1937).

The limitations of either the natural flow or the reasonable use versions may be avoided by prescription.²⁹ An interbasin transfer that harms riparians becomes lawful with respect to them, and only them, after the running of the jurisdiction's statute of limitations for actions based on the harm caused. It is apparent, however, that in addition to countervailing political and public policy considerations where the transferor is a governmental agency or unit, prescription is not a dependable vehicle for neutralizing private rights affected by interbasin transfer.³⁰

These general statements of riparian rights are riddled with exceptions. For example, a few states permit use off the riparian tract if the use is otherwise reasonable under the circumstances;³¹ the location of the use is "simply [another] factor bearing on the over-all reasonableness of the use."³² In fact, the modern view seems to deny relief to "riparians who have no present need for the water"³³ that is being put to a non-riparian use. This trend appears to allow planners for interbasin transfer to ignore the theoretical differences in *rights* between natural flow and reasonable use jurisdictions and concentrate on determination of existing *uses*;³⁴ if the transfer will not disturb those uses, it may be allowable.

The second approach to defining rights in stream water is the prior appropriation doctrine. Generally, under prior appropriation systems, one who first diverts and uses water from a stream has a continuing right to use the same amount of water under the same circumstances; his right is superior to the rights of subsequent appropriators.³⁵ Compared with riparian rights, therefore, the appropriation rights of individuals are determinable with relative exactness. However, an inter-

²⁹ Johnson, *supra* note 2, at 1038.

³⁰ Before the prescriptive period will begin to run, the use in interbasin transfer must be wrongful. Waite, *supra* note 14, at 876. In a natural flow jurisdiction, the use is wrongful from the beginning, since the flow of water is diminished immediately. In a reasonable use jurisdiction, however, the interbasin transfer use does not become wrongful until it conflicts with another riparian's use; it is therefore uncertain when or if the prescriptive period will begin to run against any one of many potential litigants. However, a prescriptive right offers a special advantage; because of the requirement of unlawfulness, it is not limited to a reasonable amount of water. *Id.*

³¹ Farnham, *supra* note 12, at 413.

³² Waite, *supra* note 14, at 875.

³³ Johnson, *supra* note 2, at 1037.

³⁴ This trend may also establish with certainty the commencement of the prescriptive period.

³⁵ 5 POWELL ¶¶ 735-38. The method by which an appropriative right is secured varies among jurisdictions; in some it is sufficient to divert and use the water (*e.g.*, COLO. CONST. art. XVI, §§ 5, 6), while in others a permit must also be secured (*e.g.*, WYO. STAT. ANN. §§ 41-2, 41-201 (1957)).

basin transfer based on appropriation may have no rights to water when the flow in a stream falls to a point at which it can satisfy only the needs of more senior appropriators. An interbasin transfer based on riparian rights would generally get its share of the water available, however small.

A frequent generalization is that appropriative rights are restricted neither to use on riparian land nor to use within the watershed;³⁶ in addition, the rights are said to be freely transferable.³⁷ Accordingly, it is generally accepted that interbasin transfer is much easier in an appropriation jurisdiction than in a riparian jurisdiction. Most appropriation systems, however, are creatures of state constitutions and statutes and contain a multitude of exceptions to even the narrowest generalization;³⁸ impediments to interbasin transfer abound. For example, even appropriative rights are not always freely transferable³⁹ in a market system,⁴⁰ since a "change in or transfer of a water right cannot injuriously affect another appropriator."⁴¹ In addition, statutory preferences for certain uses in some appropriation jurisdictions may hamper interbasin transfers in times of shortages,⁴² and watershed protection laws create the same problems as in riparian jurisdictions.⁴³ Finally, administrative discretion under an appropriation system creates uncertainty.⁴⁴

³⁶ SAX 113.

³⁷ It is often said that riparian rights are not transferable, but in some situations they are not necessarily unmarketable. Comment, *Are Water Rights Marketable in Wisconsin?*, 1966 WIS. L. REV. 942. Riparian rights have been marketed by at least two techniques: (1) through contract for water power (*Kimberly-Clark Co. v. Patten Paper Co.*, 153 Wis. 69, 140 N.W. 1066 (1913)); and (2) through governmental grant (*Green Bay & Miss. Canal Co. v. Patten Paper Co.*, 172 U.S. 58 (1898)). In some jurisdictions consumptive riparian rights may be transferable. *United Paper Board Co. v. Iroquois Pulp & Paper Co.*, 226 N.Y. 38, 123 N.E. 200 (1913); *Smith v. Stanolind Oil & Gas Co.*, 179 Okla. 499, 172 P.2d 1002 (1946).

³⁸ For example, adjudication of water rights under the prior appropriation doctrine breaks down into three systems: The "Colorado" (judicial decree establishing priority), COLO. REV. STAT. ANN. §§ 148-9-1 to -27 (1963); the "Wyoming" (appealable administrative determination of priorities), WYO. STAT. ANN. §§ 41-181, 41-193 (1957); and the "Oregon" (administrative determination used in judicial proceeding), ORE. REV. STAT. §§ 541.310, 541.320 (1967).

³⁹ Comment, *Legal Impediments to Transfers of Water Rights*, 7 NATURAL RESOURCES J. 433 (1967).

⁴⁰ Ellis, *Water Rights: What They Are and How They Are Created*, 13 ROCKY MT. MINERAL L. INST. 451, 452 (1967).

⁴¹ Trelease, *Changes and Transfers of Water Rights*, 13 ROCKY MT. MINERAL L. INST. 507, 510 (1967).

⁴² 1 WATERS AND WATER RIGHTS §§ 22.7, 54.2 (R. Clark ed. 1967).

⁴³ SAX 122.

⁴⁴ See, e.g., Ohrenschall, *Legal Aspects of the Nevada Water Plan—A Case Study of "Law in Action,"* 2 NATURAL RESOURCES LAW. 250 (1969):

Jurisdictions that adhere to both riparian and appropriation systems⁴⁵ deserve special attention by planners, since their law involves many uncertainties and contradictions. For example, the ability of a riparian to hinder, by an injunction or action for damages, an inter-basin transfer based on an appropriative right may depend on the nature of the riparian's use.⁴⁶ In these jurisdictions, however, riparian rights do not attach to "storm and flood waters," which generally comprise "most or all of the water available for interbasin transfer."⁴⁷

2. *Underground Water*

Ground water is becoming an increasingly important national asset.⁴⁸ It is an indispensable water source for Nevada⁴⁹ and is extremely important in southern California.⁵⁰ However, although some federal projects dealing with stream water also create new supplies of ground water,⁵¹ extensive use of ground water without recharging of aquifers could cause much stream water to disappear.⁵²

The ease with which ground water can be used in interbasin transfer is basically determined by a rigid classification system. Water in well-defined underground streams is normally treated in the same fashion as water in surface streams.⁵³ But "percolating" water—subterranean water not flowing in underground streams—is subject to at least five different jurisdictional treatments,⁵⁴ and planners must there-

[Nevada's] [p]ure appropriation doctrine [expressed in a permit system] imposes no limitations on the place of use, which need not be in the watershed of origin. The Nevada water law is silent on both the propriety of trans-basin diversions and intra-basin water reservations, *although conceivably the State Engineer might weigh applications for such uses against the statutory standard of public welfare or public interest.*

Id. at 257-58 (emphasis added) (footnote omitted).

⁴⁵ These states include California, Kansas, Nebraska, North Dakota, Oklahoma, Oregon, South Dakota, Texas, and Washington. See T. GARRITY, JR. & E. NITZSCHKE, JR., *WATER LAW ATLAS* 7 (1968).

⁴⁶ Malakoff, *Erosion of a Water Right, or Just a Pile of Sand?*, 5 CALIF. WEST. L. REV. 44, 74 (1968).

⁴⁷ Johnson, *supra* note 2, at 1037.

⁴⁸ "More effective development and management of the Nation's groundwater potential offers considerable promise for fully utilizing our available water supply." WATER RESOURCES COUNCIL, *supra* note 1, at 5-1-7.

⁴⁹ Ohrenschall, *supra* note 44.

⁵⁰ Reise, *Planning for Ground Water Production*, 38 S. CAL. L. REV. 484 (1965).

⁵¹ Comment, *Project Ground Water: Problems and Possible Solutions in Application of the Federal Reclamation Act to a Disputed Resource*, 44 WASH. L. REV. 259 (1968).

⁵² Aulenbach, *supra* note 1, at 541.

⁵³ A legal presumption that underground water is not in an underground stream exists in all jurisdictions except Colorado. VI-A LAW OF PROPERTY § 28.65.

⁵⁴ See generally White, *Reasonable State Regulation of the Interstate Transfer of*

fore be alert for jurisdictional differences when considering ground water for use in interbasin transfers.

Roughly one-quarter of American jurisdictions follow the absolute privilege doctrine, under which the overlying landowner, absent malice or waste, may pump as much water as he desires, regardless of injury to his neighbors and for use on any property.⁵⁵ This may be the ideal doctrine for interbasin transfer; unless nearby streams are affected or conservation statutes limit withdrawals,⁵⁶ the only limit on the amount of water that may be extracted is hydrological, and the water may be used anywhere, even off the overlying land.⁵⁷

Approximately one-half of American jurisdictions follow the Forbell version of the reasonable use doctrine, which prohibits the use of percolating water off the overlying land when that use interferes with the right of a neighbor to use the water on his own land.⁵⁸ Here, interbasin transfer becomes more difficult, since a withdrawal will become unlawful if any neighboring landowner is injured. Interbasin transfer is not entirely precluded, however, since there is no restriction on the place of use so long as neighbors escape harm.⁵⁹

Although only a few states appear to follow the *Restatement of Torts* in this area,⁶⁰ its doctrine encourages interbasin transfer, since a use off the overlying land that injures a neighbor is unlawful only if it is unreasonable.⁶¹ In addition, uses off the overlying land are merely "more apt to be found unreasonable . . . than an equally extensive use for the benefit of that land."⁶²

The correlative rights doctrine, which provides that "only water which is surplus to the reasonable requirements of the overlying land may be used for other lands," is unique to California.⁶³ Interbasin transfer is not ruled out here; it is merely restricted to surplus waters, as it is in effect under the Forbell version of the reasonable use doctrine.

In many western states, percolating water as well as stream water

Percolating Water, 2 NATURAL RESOURCES LAW. 383, 386-87 (1969) [hereinafter cited as White].

⁵⁵ 5 POWELL ¶ 725.

⁵⁶ Clark, *Ground Water Legislation in the Light of Experience in the Western States*, 22 MONT. L. REV. 42, 44 (1960).

⁵⁷ See *City of Altus v. Carr*, 255 F. Supp. 828 (W.D. Tex.), *aff'd mem.*, 385 U.S. 35 (1966).

⁵⁸ White 391.

⁵⁹ *Forbell v. City of New York*, 185 N.Y. 522, 58 N.E. 644 (1900).

⁶⁰ White 399.

⁶¹ RESTATEMENT OF TORTS § 860 (1939).

⁶² *Id.* § 862, Comment b, at 390 (emphasis added).

⁶³ White 400.

is governed by a prior appropriation system. Not all jurisdictions having an appropriation system for surface streams extend the system to underground water, however; some have different appropriation systems for the two types of water, and in some the appropriation system does not extend to all ground water.⁶⁴ A state that follows an appropriation doctrine for surface watercourses may apply one of the previously described doctrines to its percolating water.⁶⁵ Of course, where an appropriation doctrine applies to percolating water, the likelihood is that the water can easily be used for interbasin transfer, although the same limitations that can frustrate interbasin transfer of appropriable stream water may also limit transfer of appropriable percolating water.⁶⁶

⁶⁴ *Id.* at 401.

⁶⁵ 1 WATERS AND WATER RIGHTS, *supra* note 42, at 31-32.

⁶⁶ The following chart lists the types of water rights in the source basin in order of their general conduciveness to interbasin transfer.

Group I: highly conducive

Percolating Water—absolute privilege doctrine
 Percolating Water—appropriation doctrines
 Stream Water —appropriation doctrines

Group II: conducive

Stream Water —riparian doctrine, reasonable use version, without riparian lands limitation
 Percolating Water—reasonable use doctrine, restatement version

Group III: somewhat conducive

Percolating Water—reasonable use doctrine, forbell version
 Percolating Water—correlative rights doctrine
 Stream Water —riparian doctrine, reasonable use version

Group IV: not conducive

Stream Water —riparian doctrine, natural flow version

Interbasin transfer may threaten private rights in the receiving basin as well as in the source basin. Comment, *Foreign Water in Colorado—The City's Right to Recapture and Re-Use Its Transmountain Diversion*, 42 DENVER L.C.J. 116 (1965). For example, the increased amounts of water may elevate high-water levels, extend the flood plain, alter the location of river beds, or reduce the size of riparian tracts. If riparian owners have rights in the augmented flow, the rights' existence, value, and compensability must be determined under either the traditional local water rights law or some superimposed system (e.g., a permit system for the incremental water in an otherwise riparian jurisdiction). In addition, a system must be established to determine the allocation of the incremental water and resolve conflicts among its users. The incremental water will affect ecological, scenic, recreational, and economic interests in the receiving basin; any disruption of existing rights may be enjoined or require compensation. The resolution of these issues is important even though the receiving basins presently may be so anxious to acquire additional water that the questions demand little attention.

B. Statutory Protection of the Area of Origin

1. State Statutes

A number of states, including the largest states in the West, limit or condition the diversion of water from its area of origin. The statutes vary, but most substantially alter the free interbasin transferability of unappropriated water and water that might have been freely diverted under progressive applications of the riparian doctrine.⁶⁷ The statutes of Nebraska, Texas, Colorado, and California are illustrative.

The Nebraska statute prohibits transbasin diversions from any stream of the state "unless such stream exceeds in width one hundred feet, in which event not more than seventy-five percent of the regular flow shall be taken."⁶⁸ On its face, this provision allows interbasin transfers from Nebraska's major streams. A second provision, however, mandates that irrigators return unused water to "the stream from which such water was taken, or to the Missouri River."⁶⁹

An early case construing the conflicting statutes denied a diversion permit on the ground that the statute ordering return of water by irrigators controlled,⁷⁰ but the latest case dealing with diversion permits appears to retreat from this position.⁷¹ In upholding the grant of a permit, the Nebraska Supreme Court held that surplus water did not have to be returned to the stream of origin. In so holding, the court employed a broad definition of what constitutes a basin for purposes of the statute and found both streams to be in the same watershed. Although these cases may be reconcilable, since the court balanced equities in each,⁷² the present status of Nebraska's area-of-origin law is uncertain.

⁶⁷ Dean Trelease has referred to area-of-origin statutes as "backwaters in the stream of prior appropriation." Trelease, *A Model State Water Code for River Basin Development*, 22 LAW & CONTEMP. PROB. 301, 304 (1957).

⁶⁸ NEB. REV. STAT. § 46-206 (1968). The limitations are apparently arbitrary, and the statute gives no indication of how or where a stream is to be measured.

⁶⁹ *Id.* § 46-265.

⁷⁰ *Osterman v. Central Neb. Pub. Power & Irr. Dist.*, 131 Neb. 356, 268 N.W. 334 (1936), discussed in Hutchins & Steele, *Basic Water Rights Doctrines and Their Implications for River Basin Development*, 22 LAW & CONTEMP. PROB. 276, 295-96 (1957); Yeutter, *A Legal-Economic Critique of Nebraska Watercourse Law*, 44 NEB. L. REV. 11, 53-57 (1965).

⁷¹ *Ainsworth Irr. Dist. v. Bejot*, 170 Neb. 257, 102 N.W.2d 416 (1960).

⁷² Yeutter, *supra* note 70, at 56-57. In the newer case, the proposed diversion would not have interfered with the lightly populated watershed of origin, whereas in the first case the watershed of origin was a substantial farming area.

Texas first attempted to limit transbasin diversions by a provision in a 1913 irrigation act known as the "watershed-prejudice act":⁷³

It shall be unlawful . . . to take or divert any of the water of the ordinary flow . . . of any stream, water course, or watershed in this State into any other natural stream, water course or watershed . . . to the prejudice of any person or property situated within the watershed from which such water is proposed to be taken or diverted.⁷⁴

Fortunately, however, the Texas Water Rights Commission, which considers applications for permits to appropriate water for interbasin transfer, is not bound by a literal interpretation of the "watershed-prejudice act." Such an interpretation would prohibit a transbasin diversion causing *any* prejudice to the basin of origin and would be, in effect, an absolute prohibition of interbasin transfer.⁷⁵ The Texas Supreme Court has interpreted the Act to allow the Water Rights Commission to determine "prejudice" only after balancing the anticipated benefits and detriments from a proposed interbasin transfer and finding the detriments to outweigh the benefits.⁷⁶

Full responsibility for water resources planning is vested in the Texas Water Development Board. The enabling statute precludes the Board from planning any transbasin diversions if it is reasonably foreseeable that the water will be required in the basin of origin for any purpose during the next fifty years.⁷⁷ The Texas Supreme Court, however, has interpreted the Act to the effect that "the prohibition of trans-basin diversion of surface water is directed solely at the 'State Water Plan' to be formulated by the Texas Water Development Board and not the Water Rights Commission."⁷⁸

The Colorado Legislature, concerned primarily with the protection of miners, provided in 1864 that no stream waters were to be diverted from their original channel to the detriment of users along the stream.⁷⁹ But in 1882, the Colorado Supreme Court held the provision ineffective, at least with respect to agricultural diversions,⁸⁰ and until 1943

⁷³ TEX. REV. CIV. STAT. ANN. arts. 7589-91 (1954).

⁷⁴ *Id.* art. 7589.

⁷⁵ Johnson & Knippa, *Transbasin Diversion of Water*, 43 TEXAS L. REV. 1035, 1044-46 (1965).

⁷⁶ *City of San Antonio v. Texas Water Comm'n*, 407 S.W.2d 752, 758-59 (Tex. 1966).

⁷⁷ TEX. REV. CIV. STAT. ANN. art. 8280-9, § 3(b) (Supp. 1969-70).

⁷⁸ *City of San Antonio v. Texas Water Comm'n*, 407 S.W.2d 752, 757 (Tex. 1966).

⁷⁹ Act of March 11, 1864, § 32, [1864] Colo. Laws 58.

⁸⁰ The doctrine of priority of right by priority of appropriation for agriculture is evoked, as we have seen, by the imperative necessity for artificial irrigation of the soil. And it would be an ungenerous and inequitable rule that would deprive

interbasin transfers in Colorado were controlled only by the doctrine of prior appropriation. Colorado then created a series of water-conservancy districts, which were designed to limit diversions by protecting prospective consumptive uses of water.⁸¹ This design has been unsuccessful, since the act by its terms is limited to transfers effected by water conservancy districts.⁸² Further, the Colorado Supreme Court has reaffirmed its earlier preference for liberal interbasin transfers, stating that there is no statutory or constitutional impediment to a governmental unit's diverting unappropriated water to the eastern slope of the Rockies.⁸³ Thus it seems that Colorado's limited area-of-origin statute is only a minor impediment to water resource planners.

California took its first major step toward coordinated development of the state's water resources with passage of the Feigenbaum Act in 1927.⁸⁴ The Act authorized the state to reserve all unappropriated water for coordinated development of water resources, meaning substantially that the arid areas of the south would have claim to the surplus waters of the north. This provision was unsatisfactory to northern California interests, and four years later their legislative pressure resulted in the enactment of California's area-of-origin statute.⁸⁵

While other states provide for protection of a natural unit, such as the watershed or river basin, the California Act designates a political unit, the county, as a protected area.⁸⁶ The California Department of Water Resources is charged with making and filing applications to appropriate water needed for the state's water resources development.⁸⁷ These applications are passed upon by the State Water Resources Con-

one of its benefits simply because he has . . . carried the water from one stream over an intervening watershed and cultivated land in the valley of another.

Coffin v. Left Hand Ditch Co., 6 Colo. 443, 449 (1882).

⁸¹ COLO. REV. STAT. ANN. § 150-5-1 to -50 (1963). The general powers of the board of directors of any of the water conservancy districts are limited in that any works designed to export water from the Colorado basin and its tributaries in Colorado

shall be designed, constructed and operated in such manner that the present appropriations of water, and in addition thereto prospective uses of water for irrigation and other beneficial consumptive use purposes . . . within the natural basin of the Colorado river in the state of Colorado, from which water is exported, will not be impaired nor increased in cost at the expense of the water users within the natural basin.

Id. § 150-5-13(2)(d).

⁸² *Id.*

⁸³ Metropolitan Suburban Water Users Ass'n v. Colorado River Water Conservation Dist., 148 Colo. 173, 202, 365 P.2d 273, 288-89 (1961).

⁸⁴ Ch. 286, § 1-2, [1927] Cal. Stat. 508-10. See Weatherford, *supra* note 8, at 1306.

⁸⁵ CAL. WATER CODE § 10505 (West Supp. 1970). For a discussion of the legislative history, see Weatherford, *supra* note 8, at 1308-09.

⁸⁶ CAL. WATER CODE § 10505 (West Supp. 1970).

⁸⁷ *Id.* § 10500.

trol Board.⁸⁸ In this procedure the Board is limited by the county-of-origin statute, which provides that no applications are to be approved that would deprive a county of any water necessary for the county's development.⁸⁹ California also protects the watershed of origin. The Central Valley Project Act of 1933⁹⁰ prohibits the Department of Water Resources from planning any interbasin diversions until all requirements of the watershed of origin are satisfied to the same extent as if there had been no diversion.⁹¹ Both California provisions emphasize the actual needs of the transferor area in its future development and can be referred to as "recapture laws."⁹² They create an overriding right in the area of origin to terminate diversion if the water is reasonably required to supply the beneficial needs of the county or watershed of origin.

The flexibility of both the watershed and county-of-origin statutes was demonstrated during the passage of the bond issue statute for the California State Water Project (Feather River Project).⁹³ While northern California interests wanted assurance of sufficient and economical future water supplies, southern California interests demanded a guarantee against future legislative actions impairing their water supply.⁹⁴ To assuage the northern interests, the provisions of the watershed-of-origin statute were incorporated by reference in the California Water Resources Development Bond Act.⁹⁵ Rather than risk the possibility of future recapture by the area of origin, the Bond Act provides for construction of local water projects to ensure adequate future supplies in the areas of origin.⁹⁶ In effect, the legislature has cautioned itself that whenever it enacts a diversion project it must provide for the area of origin or risk failure of the project. Because of this, the California area-of-origin provisions have not impeded the most ambitious trans-

⁸⁸ *Id.* § 10504.

⁸⁹ No priority under this part shall be released nor assignment made of any application that will . . . deprive the county in which the water covered by the application originates of any such water necessary for the development of the county.

Id. § 10505.

⁹⁰ *Id.* §§ 11100-855.

⁹¹ [N]o exchange of the water of any watershed or area for the water of any other watershed or area may be made by the department unless the water requirements of the watershed or area in which the exchange is made are first and at all times met and satisfied to the extent that the requirements would have been met were the exchange not made

Id. § 11463.

⁹² See Clark, *supra* note 3, at 250.

⁹³ CAL. WATER CODE §§ 12930-44 (West Supp. 1970).

⁹⁴ See Weatherford, *supra* note 8, at 1311.

⁹⁵ CAL. WATER CODE § 12931 (West Supp. 1970).

⁹⁶ *Id.* §§ 12931, 12934(d)(6).

basin diversion project undertaken by a state, and the California law has "successfully reconciled regional differences as sharp as any which exist in the West."⁹⁷

Water resource planners at the state level must cope with state area-of-origin laws,⁹⁸ but those involved in developing federal government projects are free to ignore these state protective measures, at least in their application to federal projects involving navigable waters. In *First Iowa Hydro-Electric Coop. v. FPC*⁹⁹ the cooperative proposed to divert the Cedar River into another basin for power purposes. An Iowa statute required that any water taken from a stream for such purpose be returned to the same stream, but the Supreme Court permitted the diversion. The Court found that the project furthered a federal objective of comprehensive natural resources development.¹⁰⁰

⁹⁷ *Hearings on H.R. 4671 Before the Subcomm. on Irrigation and Reclamation of the House Comm. on Interior and Insular Affairs*, 89th Cong., 1st Sess., ser. 17, at 567 (1965) (Northcutt Ely, Special Counsel, Colorado River Board of California). The law is untested in the interstate transbasin diversion situation. Weatherford, *supra* note 8, at 1327 n.147.

⁹⁸ Other area-of-origin laws include the following:

IOWA CODE § 469.5 (1966):

[With regard to the construction of any dam, a permit shall be granted] [i]f it shall appear to the council that . . . any water taken from the stream in connection with the project is returned thereto at the nearest practicable place without being materially diminished in quantity or polluted

ARIZ. REV. STAT. ANN. § 45-172(5) (Supp. 1970):

No right to the use of water on or from any watershed or drainage area which supplies or contributes water for the irrigation of lands within an irrigation district, agricultural improvement district or water users association shall be severed or transferred without the consent of the governing body.

House Joint Res. No. 502, 26th Okla. Leg. § 2, [1957] Okla. Laws 672, *incorporated by reference* in OKLA. STAT. ANN. tit. 82, § 1078 (1970) (guidelines for the State Water Resources Board):

Before an appropriated or adjudicated right may be granted for water to be ultimately used at a distant point, sufficient reserves should be set up to take care of the present and reasonable future needs of the area of origin.

North Dakota specifically encourages transbasin diversions. The Water Conservation Commission has full authority

[t]o conserve and develop the waters within the natural watershed areas of the state and, subject to vested rights, to divert the waters within a watershed area to another watershed area and the waters of any river, lake or stream into another river, lake or stream.

N.D. CENT. CODE § 61-02-14(1)(d) (Supp. 1969).

⁹⁹ 328 U.S. 152 (1946).

¹⁰⁰ *Id.* at 180-82. See Trelease, *Federal Limitations on State Water Law*, 10 BUFFALO L. REV. 399, 402 (1961). In *City of Fresno v. California*, 372 U.S. 627 (1963), the Supreme Court held that state law does not prevent the United States from exercising its eminent domain power to acquire water rights of private users under the Reclamation Act of 1902, 43 U.S.C. §§ 371-616 (1964). Even though the Act directs the Secretary of the Interior to proceed under applicable state law (*id.* § 383), the Court held that the only function of state law in an eminent domain taking is to define the property interest that is to be compensated. 372 U.S. at 630. Since it is unlikely that area-of-origin statutes create vested prop-

2. Federal Statutes

Although state law is not binding on the federal government, Congress may choose to recognize an established state law or policy when creating a water resources project. An example of this is the Frying Pan-Arkansas diversion project, which provides that the Colorado prohibition against west-east transbasin diversions applies to the project.¹⁰¹ The project statute also precludes the Secretary of the Interior from exercising the eminent domain power to acquire Frying Pan basin water rights for use outside the basin.¹⁰²

Congress may also enact a federal area-of-origin law. Pressure for such a law has been most evident in the hearings and debates surrounding the Pacific Southwest Water Plan¹⁰³ and the Lower Colorado River Basin Project Bill.¹⁰⁴ (Interior Department proposals that would have diverted northern California and Pacific Northwest surplus water to the Southwest.) The Colorado River Basin Project Act of 1968¹⁰⁵ indicates that Pacific Northwest interests have won at least a temporary victory. The Act provides for additional comprehensive development of the upper and lower Colorado River basin and authorizes the Secretary of the Interior to investigate and develop a general plan to meet the basin's water needs. The Act confronts the Secretary with a broad, temporary area-of-origin limitation: until 1978 no *studies* may be made for the importation of water from other river basins into the Colorado River basin.¹⁰⁶ Furthermore, if after the moratorium period the Secre-

erty interests, the federal government is free to ignore them. Meyers, *The Colorado River*, 19 STAN. L. REV. 1, 64 (1966).

¹⁰¹ 43 U.S.C. § 616b(a) (1964). This is accomplished by incorporating operating principles adopted by the State of Colorado, as set forth in H.R. Doc. No. 137, 87th Cong., 1st Sess. 3-6 (1961). Evidently, pressure from powerful congressional representatives of Colorado's western slope was instrumental in securing this provision of the Act. See Johnson & Knippa, *supra* note 75, at 1042.

¹⁰² 43 U.S.C. § 616b(d) (1964).

¹⁰³ DEP'T OF THE INTERIOR, REPORT ON THE PACIFIC SOUTHWEST WATER PLAN (1963). The plan looked primarily to northern California as the source of water for the Southwest. California's objections led to the plan's abandonment and an attempt at compromise in the Lower Colorado River Basin Project Bills. See Clark, *supra* note 3, at 216-23.

¹⁰⁴ The principal Lower Colorado River Basin Project Bill was H.R. 4671, 89th Cong., 1st Sess. (1965), which would have provided for augmentation of Colorado River water primarily by diversion from the Pacific Northwest. Despite some area-of-origin protective provisions, political resistance from Pacific Northwest interests was instrumental in delaying the project. Clark, *supra* note 3, at 221-30; Weatherford, *supra* note 8, at 1326-31.

¹⁰⁵ 43 U.S.C. §§ 1501-56 (Supp. IV, 1969).

¹⁰⁶ *Provided*, That for a period of ten years from the date of this Act, the Secretary shall not undertake reconnaissance studies of any plan for the importation of water into the Colorado River Basin from any other natural river drainage basin

tary does plan for diversions from other basins, he must include provisions for protection of the states and areas of origin.¹⁰⁷ The Act suggests, however, that protection may take the form of funding local projects to ensure an adequate water supply for transferor states and areas. Such protection would not jeopardize a transfer project by risking ultimate recapture of water by the area of origin.

The Water Resources Planning Act of 1965¹⁰⁸ imposes another form of area-of-origin protection. No entity established or acting under the Act may "study, plan, or recommend the transfer of waters between areas under the jurisdiction of more than one river basin commission."¹⁰⁹ All recommendations are to be screened by the Water Resources Council.¹¹⁰ The implications of this provision for adequate planning may be great.

Whether a federal statutory regulation restricting or prohibiting transbasin diversions to protect the area of origin might be imposed at the expense of another region of the country is constitutionally untested. On several occasions, however, the Supreme Court has expressly rejected the argument that out-of-basin diversions should be prohibited. In *New Jersey v. New York*¹¹¹ the Court stated that "[t]he removal of water to a different watershed obviously must be allowed at times unless States are to be deprived of the most beneficial use on formal grounds."¹¹² And in *Wyoming v. Colorado*¹¹³ the Court noted that "[t]he objection . . . to the proposed diversion on the ground that it is to another watershed [is] . . . untenable."¹¹⁴

Area-of-origin protection is now a recognized factor in water resources planning and allocation. The interests of the potential trans-

lying outside the States of Arizona, California, Colorado, New Mexico, and those portions of Nevada, Utah, and Wyoming which are in the natural drainage basin of the Colorado River.

Id. § 1511.

107 In the event that the Secretary shall . . . plan works to import water into the Colorado River system from sources outside the natural drainage areas of the system, he shall make provision for adequate and equitable protection of the interests of the States and areas of origin, including assistance from funds specified in the Act, to the end that water supplies may be available for use in such States and areas of origin adequate to satisfy their ultimate requirements

Id. § 1513.

108 42 U.S.C. §§ 1962-62d-11 (Supp. IV, 1969).

109 *Id.* § 1962-1(d).

110 *Id.* § 1962a-3.

111 283 U.S. 336 (1931).

112 *Id.* at 343.

113 259 U.S. 419 (1922).

114 *Id.* at 466.

feror basin should not be allowed to stand in the way of a comprehensive national development scheme, yet law-making bodies are obviously not prepared to balance uses and allocate water to the highest user without consideration of location. In light of this, and in order to avoid recapture by the transferor basin, legislatures may need to rely on guarantees of additional funding for new small-scale projects to ensure adequate supply for the area of origin.

C. *Anti-Export Statutes*

Almost thirty percent of American jurisdictions have enacted statutes prohibiting or limiting the diversion of water beyond their respective boundaries.¹¹⁵ These statutes do not affect interstate transfers arranged by the states or the federal government,¹¹⁶ but they are a significant restriction on transfers carried out by private parties and lesser governmental entities.¹¹⁷ As such, the statutes may be unconstitutional, since a state may not unreasonably burden interstate commerce.¹¹⁸

An anti-export statute's constitutionality depends, first, on whether the water involved is an article of interstate commerce. If it is, only bona fide conservation statutes "focused . . . on the realities of the hydrological cycle rather than on state boundaries"¹¹⁹ should be used to preserve state water. If the water is not an article of interstate commerce, an anti-export statute should be valid. Whether particular water is an article of interstate commerce depends on whether it is an article

¹¹⁵ ALA. CODE tit. 37, § 393 (1958); COLO. REV. STAT. ANN. § 148-1-1 (1963); D.C. CODE ANN. § 43-1529 (1967); IDAHO CODE ANN. § 42-408 (1948); MONT. REV. CODES ANN. § 89-846 (1947); NEB. REV. STAT. § 46-233.01 (1968); NEV. REV. STAT. §§ 533.515, 533.520 (1968); N.J. STAT. ANN. § 58:3-1 (1966); N.M. STAT. ANN. § 75-11-20 (1953); N.Y. CONSERV. LAW § 452 (McKinney 1967); ORE. REV. STAT. § 537.810 (1963); R.I. GEN. LAWS ANN. 46-15-9 (Supp. 1968); TEX. REV. CIV. STAT. ANN. art. 7477b, § 2 (Supp. 1969-70); WASH. REV. CODE ANN. §§ 90.03.300, 90.16.110, 90.16.120 (1962); WYO. STAT. ANN. § 41-151 (1957); *id.* § 41-1.4 (Supp. 1969). See generally White 383. For a severe, non-legal criticism of anti-export arrangements, see Keena, *Can a Water Company Export Across State Lines?*, 63 PUB. UTIL. FORT. 908 (1959).

¹¹⁶ Even bona fide state conservation measures must fall in the face of comprehensive federal development of natural resources. *First Iowa Hydro-Electric Coop. v. FPC*, 328 U.S. 152 (1946). See the discussion of this case as well as of *Oklahoma v. Guy F. Atkinson Co.*, 313 U.S. 508 (1941), in Trelease, *supra* note 100, at 405-07.

¹¹⁷ See, e.g., *City of Altus v. Carr*, 255 F. Supp. 828 (W.D. Tex.), *aff'd mem.*, 385 U.S. 35 (1966). Anti-export statutes may flatly forbid the export of water (e.g., COLO. REV. STAT. ANN. § 148-1-1 (1963)), make the export depend on a legislative consent that is difficult to obtain (e.g., TEX. REV. CIV. STAT. ANN. art. 7477b, § 2 (Supp. 1969-70)), or on the permission of an administrative agency (e.g., N.Y. CONSERV. LAW § 452 (McKinney 1967)), or base approval of the export on some reciprocal arrangement with the state into which the water is to be exported (e.g., WYO. STAT. ANN. § 41-151 (1957)).

¹¹⁸ See *Huron Portland Cement Co. v. Detroit*, 362 U.S. 440, 444 (1960).

¹¹⁹ White 405.

of *intrastate* commerce, whether it may be moved freely within the state.¹²⁰ Accordingly, what is involved in determining the constitutionality of anti-export statutes is a case-by-case determination of whether the riparian owner, appropriator, or overlying owner is free to use the water he diverts or extracts in an unrestricted manner. Planners for interbasin transfer should first look to those legal designations of water most conducive to interbasin transfer;¹²¹ the more the water can be used in an unrestricted manner, the greater its conduciveness to interbasin transfer and the greater the likelihood that it will attain the stature of an article of intrastate and interstate commerce.

Generally, surplus water is an article of commerce. The issue is not settled,¹²² however, and substantial confusion has followed Justice Holmes's famous dictum:

The right to receive water from a river through pipes is subject to territorial limits by nature, and those limits may be fixed by the State within which the river flows, even if they are made to coincide with the state line.¹²³

Percolating water subject to the absolute privilege doctrine is an article of commerce, and the Supreme Court has held that a state anti-export statute covering such water is unconstitutional as an unreasonable burden on interstate commerce.¹²⁴

Percolating water and stream water subject to various appropriation doctrines are also ripe candidates for article-of-commerce status. Such water is commonly restricted to the place of use for which it was appropriated, but a change in the place of use may be acquired quite easily.¹²⁵ Therefore, with respect to such water, anti-export statutes are not invalid on their face, but are unconstitutional, if at all, as applied. Only if there is no restriction as to place of use is a statute restricting export invalid on its face.

Stream water subject to the reasonable use version of the riparian doctrine but not to the riparian lands limitation may be an article of commerce. Without the riparian land requirement, there is no limitation on the place of use; only the character of the use is restricted.

120 *Hudson County Water Co. v. McCarter*, 209 U.S. 349 (1908); *City of Altus v. Carr*, 255 F. Supp. 828 (W.D. Tex.), *aff'd mem.*, 385 U.S. 35 (1966).

121 See the chart setting forth general conduciveness to water transfer, note 66 *supra*.

122 J. SAX, *WATER LAW, PLANNING AND POLICY* 90 (1968); 2 *WATERS AND WATER RIGHTS*, *supra* note 42, at 321; Weatherford, *supra* note 8, at 1323; 9 *ARIZ. L. REV.* 334 (1967); 47 *ORE. L. REV.* 228 (1968).

123 *Hudson County Water Co. v. McCarter*, 209 U.S. 349, 357 (1908).

124 *City of Altus v. Carr*, 255 F. Supp. 828 (W.D. Tex.), *aff'd mem.*, 385 U.S. 35 (1966).

125 See SAX 113-23.

It follows that an anti-export statute applied to this kind of water, put to a reasonable use, is invalid as applied.

Percolating water subject to the *Restatement of Torts* version of the reasonable use doctrine also may be an article of commerce under certain circumstances. Since uses off the overlying land are merely "more apt" to be unreasonable and unlawful than uses on the overlying land, the doctrine creates no strict prohibition against transfer. If an out-of-state use would be reasonable if it were within the state, though off the overlying land, the water is an article of commerce for that specific use; an anti-export statute covering the water is unconstitutional as applied.

Percolating water subject to the Forbell version of the reasonable use doctrine is an article of commerce only if its use off the overlying land does not harm neighboring landowners. Percolating water subject to the correlative rights doctrine is clearly an article of commerce if it is surplus to the needs of all the overlying owners. Stream water subject to the reasonable use version of the riparian doctrine is an article of commerce if its diversion does not interfere with the requirements of other riparians. In each of these situations an anti-export statute would be unconstitutional as applied.

Stream water subject to the natural flow version of the riparian doctrine is clearly not an article of commerce, since, according to the Supreme Court, it cannot under any circumstances be used lawfully off riparian land.¹²⁶ An anti-export statute would be permissible as applied to this water.

II

ACQUISITION OF VESTED WATER RIGHTS

An ideal interbasin transfer would be accomplished with surplus or unclaimed water; using such water would neither disturb settled uses nor require compensation for water taken. The ideal will not often be realized, however. With most projects, planners will have to decide which uses in the transferee basin should be favored at the expense of which uses in the transferor basin, how vested water rights can be acquired, and how much funding will be required to acquire them.

A. *Reallocation of Uses*

Determining which uses of water are to be preferred is not a new problem for water-scarce states. Some western states have constitutional

¹²⁶ *Hudson County Water Co. v. McCarter*, 209 U.S. 349 (1908).

or statutory provisions favoring certain uses of water and authorizing exercise of the eminent domain power to acquire water of a lower use to meet priority needs.¹²⁷ Other states merely list priorities,¹²⁸ but authorization to use eminent domain can probably be inferred from the preference provisions.¹²⁹ Although these provisions do not refer specifically to interbasin transfer, there seems to be no reason why they could not be used as vehicles for such transfers.¹³⁰

Some states have established use preferences for purposes other than condemnation; these might be used as a model for the reallocation effected by a transfer project. For example, the legislature may have supplied an administrative agency with guidelines for the issuance of permits to appropriate water.¹³¹ Another solution is to leave the determination of preferences to an administrative agency. The broad authority to oversee local public and private water systems granted to the New York Water Resources Commission,¹³² for example, includes the authority to supervise condemnation proceedings.¹³³

The failure of some preference provisions to define their terms creates a danger of inequitable application. The California provision, for example, says simply that "domestic" uses are to be preferred to

¹²⁷ *E.g.*, NEB. CONST. art. XV, § 6:

[W]hen the waters of any natural stream are not sufficient for the use of all those desiring to use the same, those using the water for domestic purposes shall have preference over those claiming it for any other purpose, and those using the water for agricultural purposes shall have preference over those using the same for manufacturing purposes. Provided, no inferior right to the use of the waters of this state shall be acquired by a superior right without just compensation therefor to the inferior user.

¹²⁸ *E.g.*, WYO. STAT. ANN. § 41-3 (1957):

First—Water for drinking purposes for both man and beast; Second—Water for municipal purposes; Third—Water for the use of steam engines and for general railway use, water for culinary, laundry, bathing, refrigerating (including the manufacture of ice), for steam and hot water heating plants, and steam power plants; and Fourth—Industrial purposes.

A California provision is much less comprehensive and provides only that "[i]t is hereby declared to be the established policy of this State that the use of water for domestic purposes is the highest use of water and that the next highest use is for irrigation." CAL. WATER CODE § 106 (West 1956).

¹²⁹ Harnsberger, *Eminent Domain and Water Law*, 48 NEB. L. REV. 325, 361-62 (1969) [hereinafter cited as Harnsberger].

¹³⁰ Difficulties might arise in those states that have "no change" laws, which provide that water rights are to remain appurtenant to the land until they are no longer beneficial. Many exceptions have been imposed, and it does not appear that "no change" laws have impeded condemnation for preferred uses. See Trelease & Lee, *Priority and Progress—Case Studies in the Transfer of Water Rights*, 1 LAND & WATER L. REV. 1 (1966).

¹³¹ Johnson, *Condemnation of Water Rights*, 46 TEXAS L. REV. 1054, 1079-80 (1968) [hereinafter cited as Johnson].

¹³² N.Y. CONSERV. LAW §§ 404, 420-29 (McKinney 1967).

¹³³ Great Neck Water Auth. v. Citizens Water Supply Co., 12 N.Y.2d 167, 187 N.E.2d 786, 237 N.Y.S.2d 331 (1962).

"irrigation"; the Wyoming provision prefers "municipal" uses to "industrial" uses.¹³⁴ It seems possible that under the Wyoming provision an independent industrial user's water rights might be condemned to satisfy the needs of a municipality that supplies water to competing industrial users.¹³⁵

B. *Eminent Domain*

1. *Direct and Inverse Condemnation*

Once it is determined to acquire particular water rights, common sense and political wisdom dictate that an attempt at negotiation and direct purchase be the first step. When this fails, however, the planning agency may exercise the power of eminent domain.

Eminent domain is "the power to take property for public use without the owner's consent upon making just compensation";¹³⁶ as defined, it is broad enough to aid any transfer project.¹³⁷ A "public use" has been found even where only a small group of private individuals is benefited,¹³⁸ and the term "property" has been held to include all generally recognized forms of water rights.¹³⁹ Determination of the amount of compensation need not be made prior to the acquisition so long as provision is made for payment without unreasonable delay.¹⁴⁰ Most important with respect to water rights, difficulty in proving the value of property does not preclude its condemnation.¹⁴¹

The power of eminent domain may be exercised by either a state

¹³⁴ Note 128 *supra*.

¹³⁵ Johnson 1075-76.

¹³⁶ 1 P. NICHOLS, *THE LAW OF EMINENT DOMAIN* § 1.11 (rev. 3d ed. 1964) [hereinafter cited as NICHOLS]. Taking of private property for a public use under the eminent domain power must be distinguished from general regulation of public health, safety, and morals under the police power. When property or property's value is taken under the police power, the owner's opportunity to share in the benefits of the action is considered adequate compensation, and no additional compensation need be paid. *Id.* § 4.8. The line between the eminent domain power and the police power is often unclear, and only a matter of degree distinguishes one from the other. Harnsberger 343-44. It has been suggested that compensation be required only when the government action enhances the economic value of a government enterprise to the detriment of a private economic value. Sax, *Takings and the Police Power*, 74 *YALE L.J.* 36, 39-41 (1964).

¹³⁷ Condemnation of water rights may become a major factor in the reallocation of water. Johnson 1054. In fact, eminent domain proceedings may become substitutes for prior appropriations in western states. Gross, *Condemnation of Water Rights for Preferred Uses—A Replacement for Prior Appropriation?*, 3 *WILLAMETTE L.J.* 263 (1965). See generally Johnson 1054-55.

¹³⁸ See, e.g., *Brown v. United States*, 263 U.S. 78 (1923). See also Harnsberger 329-30.

¹³⁹ 2 NICHOLS §§ 5.21, 5.78-79.

¹⁴⁰ 1 *id.* § 4.8.

¹⁴¹ *Id.*

or the federal government,¹⁴² and it may be delegated.¹⁴³ It can only be exercised under constitutional or legislative authorization,¹⁴⁴ however, and state-by-state examination is necessary to determine if the language of the eminent domain statute is broad enough to include condemnation of riparian and appropriative rights. It is unclear whether the statute must specifically mention "water" or "water rights"; at least one state has ruled that a general grant of authority to condemn land is sufficient to permit the taking of appurtenant water rights.¹⁴⁵

Property may be condemned either before or after it is taken.¹⁴⁶ Just as acquisition by purchase seems preferable to acquisition by condemnation, prior condemnation seems preferable to subsequent condemnation. Especially when a large project is involved, however, it may be impossible to predict precisely which water rights will be affected and to acquire those rights in advance.

The possibility of inverse condemnation obviously gives a development agency great flexibility in project planning, and it has played a significant role in major government projects in the past.¹⁴⁷ Reliance on it complicates project funding, however, since it is difficult to estimate

¹⁴² Eminent domain is usually considered inherent in sovereignty. *Id.* §§ 1.13-14. Initially, there was some question as to whether the federal government could exercise the power, but in *Kohl v. United States*, 91 U.S. 367 (1875), the right of the United States to acquire property by eminent domain was clearly recognized. Modern federal statutes permit immediate acquisition of title by the United States by condemnation proceedings in state or federal courts. 40 U.S.C. §§ 257-58 (1964).

¹⁴³ In the federal system, delegation usually extends only to agencies of the federal government. At the state level, a broad grant of the power to condemn water rights is often made to municipalities (e.g., CAL. WATER CODE § 71693 (West 1966)); see Gross, *supra* note 137, at 269-70), and in recent years there have been extensive grants to quasi-public organizations, such as water storage and conservation districts (e.g., TEX. REV. CIV. STAT. ANN. art. 7807f(9)(b) (1954)) and conservation and irrigation districts (e.g., COLO. REV. STAT. ANN. § 89-5-13(10) (1963)). It is unclear whether permitting condemnation of water rights by a private individual could ever constitute a "public use." Those favoring such exercise of the power rely heavily on *Clark v. Nash*, 198 U.S. 361 (1905), which held that an individual could exercise the eminent domain power to condemn a right of way for an irrigation canal to irrigate private land. This is apparently an isolated case, and the question has not been decided with respect to water rights. See Gross, *supra* note 137, at 269-70.

¹⁴⁴ 1 NICHOLS § 3.2.

¹⁴⁵ *McGhee Irr. Ditch Co. v. Hudson*, 85 Tex. 587, 22 S.W. 398, *aff'd on rehearing*, 85 Tex. 591, 22 S.W. 967 (1893). See Johnson 1059.

¹⁴⁶ Unacquired rights impaired by a project may be condemned either by a direct condemnation proceeding or by a cross-bill in a suit against the condemner. E.g., *Canada v. City of Shawnee*, 179 Okla. 53, 64 P.2d 694 (1936), *aff'd on rehearing*, 179 Okla. 57, 64 P.2d 700 (1937); TEX. REV. CIV. STAT. ANN. art. 3269 (1968). See generally 6 NICHOLS § 24.31.

¹⁴⁷ See Harnsberger 390-91.

the damages that may have to be paid if many lawsuits are brought. More important, the project may be dealt a serious blow if an injured party obtains injunctive relief.

Injunctive relief is available if the potential condemnor has acted without authority or if there is any other defect that would defeat a regular eminent domain proceeding.¹⁴⁸ In other cases, however, an injunction is probably not a serious danger. In *Collier v. Merced Irrigation District*,¹⁴⁹ the first case to deal with inverse condemnation of water rights, a California farmer sought to enjoin infringement of his riparian rights by a hydroelectric dam. The California Supreme Court held that since defendant had the power of eminent domain to secure water, it could maintain a cross-action for condemnation as in eminent domain.¹⁵⁰ The project was completed prior to the bringing of the suit, and the court was reluctant to disturb an operating project so long as the irrigation district was able to pay damages.

Dugan v. Rank,¹⁵¹ the principal case involving inverse condemnation of water rights by the federal government, also illustrates the probable unavailability of injunctive relief. As part of the California Central Valley Reclamation Project,¹⁵² the Bureau of Reclamation unsuccessfully negotiated for the purchase of water rights below Friant Dam. Even though the Bureau had not acquired the rights, the dam was constructed, the stream reduced to a trickle, and the rights of the uncompensated riparian owners substantially destroyed. Among other relief, the owners sought an injunction restraining Bureau of Reclamation officials from storing and diverting the river's water. The Supreme Court held that the diversion of the water was a partial taking of water rights by inverse condemnation, and that, as such, it was proper and compensable.¹⁵³ Throughout the opinion is language alluding to the

¹⁴⁸ Johnson 1090-91.

¹⁴⁹ 213 Cal. 554, 2 P.2d 790 (1931). See also 6 NICHOLS § 24.31; Gross, *supra* note 137, at 278.

¹⁵⁰ 213 Cal. at 565-66, 2 P.2d at 794.

¹⁵¹ 372 U.S. 609 (1963).

¹⁵² Rivers and Harbors Act of 1937, ch. 832, § 2, 50 Stat. 850; Rivers and Harbors Act of 1940, ch. 895, § 2, 54 Stat. 1199; see *United States v. Gerlach Live Stock Co.*, 339 U.S. 725 (1950).

¹⁵³ A seizure of water rights need not necessarily be a physical invasion of the land. It may occur upstream, as here. . . . Therefore, when the Government acted here "with the purpose and effect of subordinating" the respondents' water rights to the Project's uses "whenever it saw fit," "with the result of depriving the owner of its profitable use [there was] the imposition of such a servitude [as] would constitute an appropriation of property for which compensation should be made."

372 U.S. at 625, quoting *Portsmouth Harbor Land & Hotel Co. v. United States*, 260 U.S. 327, 329 (1922).

undesirability of impeding a major government project once authorized by Congress,¹⁵⁴ and one writer has suggested the actual basis of the decision was that an injunction would have been contrary to the intent of Congress.¹⁵⁵ Thus damages are probably the only relief available.

2. Valuation of Rights

Although a number of methods could be used to fix compensation for water rights acquired by eminent domain,¹⁵⁶ most valuation controversies involve only two methods. The first is to value the acquired right itself. The Nichols treatise on eminent domain disapproves this method on the ground that it is improper to value separately assets appurtenant to real property.¹⁵⁷ The method Nichols approves is to value the water right by the diminution in market value of the property to which it is attached.

In *Dugan v. Rank*¹⁵⁸ the Supreme Court adopted the Nichols rule for valuation of riparian water rights,¹⁵⁹ but appropriative rights are usually valued according to the value-of-the-right rule.¹⁶⁰ Assuming that both methods are viable, this difference in application is justified. An appropriative right theoretically entitles the owner to a fixed amount of water, and taking or using the right does not affect the rights of other appropriators. A riparian right, on the other hand, entitles the owner to an amount of water that varies with the flow of the stream, and taking and using the riparian right may affect the rights of many other riparians. In theory, therefore, an appropriative right can more easily be

¹⁵⁴ *Id.* at 621.

¹⁵⁵ Harnsberger 396-97.

¹⁵⁶ On compensation in general see 4 NICHOLS § 12.1. Besides the methods mentioned in the text, compensation might be fixed by the value of the acquired property to the condemning entity or by the condemnee's investment in facilities for enjoyment of his water rights. F. TRELEASE, *WATER LAW, CASES AND MATERIALS* 76 (1967). California has attempted to provide a statutory answer for valuation of water rights in condemnation proceedings: if a person accepts a license to appropriate any rights under the water code, his compensation upon the condemnation of those rights may not exceed the amount he originally paid for the license. CAL. WATER CODE §§ 1392, 1629. (West 1956).

¹⁵⁷ 4 NICHOLS § 13.23.

¹⁵⁸ 372 U.S. 609 (1963).

¹⁵⁹ "Damages in this instance are to be measured by the difference in market value of respondents' land before and after the interference or partial taking." *Id.* at 624-25, citing *Collier v. Merced Irr. Dist.*, 213 Cal. 554, 2 P.2d 790 (1931). Most of the claimants in *Dugan*, as in *Collier*, were riparian owners.

¹⁶⁰ Harnsberger 372. This distinction is not always made. In some instances market value of riparian rights themselves has been applied when the rights have been recently sold. Similarly, some courts in appropriation jurisdictions have ruled that an appropriator may be entitled to the diminution in market value of the land caused by condemnation of appurtenant water rights. *E.g.*, *Sigurd City v. State*, 105 Utah 278, 142 P.2d 154 (1943).

valued than a riparian right.¹⁶¹ It is not reasonable to expect the value of an appropriative right to be reflected in the value of the appurtenant land, since appropriated water may be diverted to lands where it may be most advantageously used. Riparian water, on the other hand, is commonly restricted to the appurtenant land and should affect its value.

In practice, the value-of-the-right rule may be unsatisfactory even in appropriation states. Because water rights are infrequently bought and sold,¹⁶² market value may be elusive. In addition, it is difficult to ascertain exactly what the condemnor or purchaser is getting; measurements of appropriative rights according to rate of flow, the usual practice, are inaccurate and misleading.¹⁶³ In light of these difficulties, and the probability that the diminution-of-property-value rule will be applied when no value can be assigned to the right itself,¹⁶⁴ a more realistic approach may be to apply the Nichols rule from the start in all cases.

C. *The Option Not to Compensate*

1. *Takings by the Federal Government*

Congress may secure control over water resources under a number of constitutional powers other than the power of eminent domain, and by so doing may avoid the necessity of compensating the owner. The most significant alternative powers are the proprietary power and the navigation power.¹⁶⁵

¹⁶¹ Valuing an unused riparian right is a particular problem. Even if the value is presently only nominal, proof of actual value is difficult because of the need to establish the future potential uses for all the riparians on the stream. Trelease, *Coordination of Riparian and Appropriative Rights to the Use of Water*, 33 TEXAS L. REV. 24, 59 (1954).

¹⁶² Johnson 1095.

¹⁶³ If all appropriative rights were measured in terms of volume, however, an improved market system would result and the problem of valuation would be simplified. Ellis, *Water Transfer Problems, Law*, in WATER RESEARCH 233, 238 (A. Kneese & S. Smith eds. 1966).

¹⁶⁴ In non-water-rights cases, the Supreme Court has ruled that where the property has no market value at the time, other sources of valuation must be considered. *See, e.g., United States v. Miller*, 317 U.S. 369, *rehearing denied*, 318 U.S. 798 (1943). *See* Annot., 19 L. Ed. 2d 1361, 1369-71 (1968), for a discussion of Supreme Court cases dealing with the measure of damages for condemnation of real property by the federal government. This annotation cites no cases of the direct taking of water rights.

¹⁶⁵ Less important than the powers mentioned in the text are the war power (U.S. CONST. art. I, § 8), the general welfare power (*id.*), and the treaty power (*id.* art. II, § 2). The Wilson Dam, for example, was initially justified under the war power as a source of nitrates for munitions. *See Ashwander v. TVA*, 297 U.S. 288 (1936). Property needed for the national defense is usually taken by eminent domain, but the government apparently may ignore the state law and take private water rights without compensation.

a. *The Proprietary Power.* The property clause,¹⁶⁶ which gives Congress absolute control over lands owned by the United States, is a source of considerable power over western streams. Except for Texas, almost all western land was at one time owned by the United States. Upon admission to statehood, each state, as an incident of its sovereignty, acquired the power over navigable streams, but non-navigable waters remained under federal control.¹⁶⁷ A series of congressional enactments, culminating in the Desert Land Act of 1877,¹⁶⁸ then validated vested water rights created by local law and custom.¹⁶⁹ This legislation did not make a general grant to the states of federally owned water. Rather, it served to sever the land from the water and permitted the states and territories, in effect, to establish water law systems under which federal ownership might be divested.¹⁷⁰

Since there was no actual grant of the water to the states, in an appropriation state the United States arguably remains the owner of all unappropriated, non-navigable waters that flow through or originate on federal lands.¹⁷¹ The most important consequence of this ownership is the power—known as the reserved rights doctrine—to reserve lands from the operation of state appropriation systems and immunize the waters of these reserved lands from private appropriations.¹⁷² Under a riparian system the claim of the United States is more limited. Since ownership of land adjacent to a stream gives the owner his riparian

Nevada *ex rel.* Shamberger v. United States, 165 F. Supp. 600 (D. Nev. 1958) (military may take water required for a base without complying with state water law that might interfere with management of the property in the best interest of defense). It is unclear whether water rights might be permanently preempted under the war power. The power of the federal government to acquire state-created water rights for the California Central Valley Project was sustained under the general welfare power, although compensation was required. United States v. Gerlach Live Stock Co., 339 U.S. 725 (1950). The treaty power has not as yet played a significant role in water resources development, but under Missouri v. Holland, 252 U.S. 416 (1920), a state water law permitting a use in conflict with a treaty obligation would fall. Trelease, *supra* note 100, at 415. The treaty power might thus support projects on international waterways. See Arizona v. California, 283 U.S. 423 (1931).

¹⁶⁶ The Congress shall have Power to dispose of and make all needful Rules and Regulations respecting the Territory or other Property belonging to the United States; and nothing in this Constitution shall be so construed as to Prejudice any Claims of the United States, or of any particular State.

U.S. CONST. art. IV, § 3, cl. 2.

¹⁶⁷ See generally 2 WATERS AND WATER RIGHTS, *supra* note 42, at § 102; Hanks, *Peace West of the 98th Meridian—A Solution to Federal-State Conflicts over Western Waters*, 23 RUTGERS L. REV. 33, 35 (1968).

¹⁶⁸ 43 U.S.C. § 321 (1964).

¹⁶⁹ *Id.* § 661. See Hanks, *supra* note 167, at 38.

¹⁷⁰ Hanks, *supra* note 167, at 38.

¹⁷¹ 2 WATERS AND WATER RIGHTS, *supra* note 42, at § 102.1.

¹⁷² *Id.*

rights, the federal claim is limited to the extent to which the United States retains ownership of riparian lands.¹⁷³

The *Pelton Dam* case¹⁷⁴ is the most important assertion of the United States's right to exercise its proprietary power free from state interference. In that case the land on either side of the non-navigable Deschutes River in Oregon had been reserved by the federal government, on one side as a power site and on the other side as an Indian reservation. When the Federal Power Commission licensed the construction of a dam across the river, Oregon objected, claiming that the severance clause of the Desert Land Act¹⁷⁵ subjected all non-navigable water to state control. The Supreme Court held the Act inapplicable, since the lands had been reserved from operation of the Act and were not "public lands" under state control.¹⁷⁶ Similarly, in *Arizona v. California*¹⁷⁷ the Court held that the property and commerce clauses gave the United States power to reserve Colorado River water for the benefit of Indian reservations, national recreation areas, national wildlife refuges, and national forests.¹⁷⁸

As a consequence of these cases, there are two situations in which the federal government may store and divert water under the proprietary power: first, when there are unappropriated, non-navigable waters that arise on or flow through the federal public domain, or where the United States is a substantial riparian owner; second, where the government has specifically reserved lands and appurtenant waters from the operation of state law. Such claims are substantial and they create uncertainty of water rights in those areas that might be affected by future federal projects.¹⁷⁹ Where this is the case, a clarification of conflicting claims should be an early task for planners.

b. *The Navigation Power.* The power of the United States to

¹⁷³ Hanks, *supra* note 167, at 39.

¹⁷⁴ FPC v. Oregon, 349 U.S. 435 (1955).

¹⁷⁵ 43 U.S.C. § 321 (1964).

¹⁷⁶ 349 U.S. at 446-48.

¹⁷⁷ 373 U.S. 546 (1963).

¹⁷⁸ *Id.* at 597-98. One writer has concluded that the Court meant to sanction the reserved rights doctrine for all federally reserved or withdrawn lands; that such reserved (water) rights arise with the mere reservation or withdrawal of the land rather than the actual beneficial application of the water; that the determinative date is the date on which the land is set aside; that private (state law) rights in existence before the target date are superior to the federal right and rights arising thereafter subordinate; and that the federal water right does not depend for its creation or its exercise, on state law.

Hanks, *supra* note 167, at 41 (footnotes omitted).

¹⁷⁹ Hanks, *supra* note 167, at 42. This problem has given rise to numerous proposals for water settlement legislation in Congress. *Id.* at 42-57.

regulate and control navigable waters is the most important basis for federal water development projects. English law recognized public rights to navigate and fish in navigable waters, and no individual could acquire an interest in water detrimental to those rights.¹⁸⁰ The rights were carried to colonial America, and under the commerce clause¹⁸¹ the federal government became the guardian of the public right of navigation.¹⁸² *The Daniel Ball*¹⁸³ defined "navigable" as "navigable in fact," thus extending the federal navigation power to streams "susceptible of being used" for navigation even though not so used in fact. The navigation power also includes control over the non-navigable reaches of navigable streams,¹⁸⁴ and even over non-navigable streams if the navigable capacity of other streams is at stake.¹⁸⁵

The navigation power may be exercised for a number of purposes. Although the power was originally limited to protection and maintenance of navigation,¹⁸⁶ congressional approval of multi-purpose projects has expanded it to include flood control, power generation, and consumptive uses.¹⁸⁷ Navigation is still the "constitutional touchstone,"¹⁸⁸ but Congress can in effect use navigable waters and many non-navigable waters for whatever purposes it wishes.¹⁸⁹

The navigation power gives the federal government unlimited control over navigable waters, but the states also exercise certain power over navigable streams¹⁹⁰ and often treat them the same as other waters when granting private water rights. The status of state-created rights in navigable waters is tenuous, since the federal government may prevent the exercise of a private right that conflicts with a properly established federal purpose. Private water rights thus suffer an infirmity, generally phrased as the federal government's "navigation servitude."¹⁹¹

Under the navigation servitude the United States may destroy private, state-created uses without exercise of the eminent domain power

180 SAX 376.

181 U.S. CONST. art. I, § 8. See generally 2 WATERS AND WATER RIGHTS, *supra* note 42, at §§ 101-101.5; MORREALE, *Federal Power in Western Waters: The Navigation Power and the Rule of No Compensation*, 3 NATURAL RESOURCES J. 1 (1963).

182 *Gibbons v. Ogden*, 22 U.S. (9 Wheat.) 1 (1824). See also SAX 376.

183 77 U.S. (10 Wall.) 557 (1870).

184 *United States v. Rio Grande Dam & Irr. Co.*, 174 U.S. 690 (1899).

185 *United States v. Grand River Dam Auth.*, 363 U.S. 229 (1960).

186 *Gibbons v. Ogden*, 22 U.S. (9 Wheat.) 1 (1824).

187 *Arizona v. California*, 373 U.S. 546, 587 (1963).

188 2 WATERS AND WATER RIGHTS, *supra* note 42, at § 101.2(B).

189 Morreale, *supra* note 181, at 9-12.

190 See Engelbert, *Federalism and Water Resources Development*, 22 LAW & CONTEMP. PROB. 325, 327 (1957).

191 SAX 376.

and without payment of compensation.¹⁹² In *United States v. Chandler-Dunbar Water Power Co.*,¹⁹³ the Supreme Court disallowed recovery of the money value of the rapids and falls destroyed by navigation works. The Court held that the company had no right of property as against the federal government in the flow of the river, despite extended prior usage under claim of right: "Ownership of a private stream wholly upon the lands of an individual is conceivable; but that the running water in a great navigable stream is capable of private ownership is inconceivable."¹⁹⁴

The Supreme Court has not ruled on a taking under the navigation servitude for irrigation or for other consumptive uses.¹⁹⁵ Morreale argues that "while there is no case subjecting irrigation water rights to the rule of no compensation nothing on the other hand suggests their compensability."¹⁹⁶ Even if uncompensated takings for consumptive uses are permitted, however, language in *United States v. Gerlach Live Stock Co.*¹⁹⁷ suggests a limitation:

[W]e need not ponder whether, by virtue of a highly fictional navigation purpose, the Government could destroy the flow of a navigable stream and carry away its water for sale to private interests without compensation to those deprived of them. We have never held that or anything like it . . .¹⁹⁸

A second important result of the *Gerlach* decision arose from the government's argument that by virtue of the navigation servitude, there was no requirement to pay for irrigation rights destroyed by a major water control project. The Supreme Court interpreted the authorizing legislation to find an intent that the Reclamation Act,¹⁹⁹ which requires condemnation and compensation for all rights taken, governs the project.²⁰⁰ Thus Congress apparently may elect to use less than all the power

¹⁹² [E]ven after the United States has permitted a private use to become established as a going concern, it may destroy the use by the exercise of the federal power, and pay nothing for the loss of the concern. It need not condemn the right, it merely exercises its easement, or imposes its servitude. There is thus no taking of property.

Trelease, *supra* note 100, at 408.

¹⁹³ 229 U.S. 53 (1913).

¹⁹⁴ *Id.* at 69.

¹⁹⁵ SAX 376 n.40.

¹⁹⁶ Morreale, *supra* note 181, at 64. In reaching this conclusion the writer notes that the *Chandler-Dunbar* Court rejected the assertion of private ownership of the water of a navigable stream. See 229 U.S. at 69.

¹⁹⁷ 339 U.S. 725 (1950).

¹⁹⁸ *Id.* at 737.

¹⁹⁹ 43 U.S.C. § 421 (1964).

²⁰⁰ 339 U.S. at 739.

available to it and may choose to compensate the taking of state-created rights.²⁰¹

The 1963 Supreme Court decision in *Arizona v. California*²⁰² may indicate the direction and methodology of future federal projects. Before 1963, interstate waters were allocated under the principle of equitable apportionment,²⁰³ and the results were embodied in Supreme Court decisions²⁰⁴ or interstate compacts.²⁰⁵ But in *Arizona v. California* the Court concluded that equitable apportionment of the Colorado River among the lower basin states was preempted by a congressional apportionment in the Boulder Canyon Project Act of 1928.²⁰⁶ When "Congress has so exercised its constitutional power over waters, courts have no power to substitute their own notions of an 'equitable apportionment' for the apportionment chosen by Congress."²⁰⁷ Similarly, where Congress has delegated the apportionment power to the executive branch, in this case to the Secretary of the Interior, the delegate's acts may be reviewed only on the basis of whether he has followed the statutory standards.²⁰⁸

The most controversial holding of *Arizona v. California* is that state law had no part in the project.²⁰⁹ Section 5 of the Project Act authorized the Secretary of the Interior to contract for delivery of water with whom and on whatever terms he chose.²¹⁰ Relying on this authorization, the Court concluded that the Secretary might allocate water among users within a state without regard to state-created priorities.²¹¹ "Where the Government, as here, has exercised this power and

²⁰¹ Congress has expressly reserved the servitude in certain western states that depend on irrigation by subordinating the use of water for navigation to "present and future beneficial consumptive uses" of large, multi-purpose projects. Trelease, *supra* note 100, at 410.

²⁰² 373 U.S. 546 (1963).

²⁰³ Equitable apportionment has generally been predicated upon priority of appropriation. Other factors, including the preservation of the existing economy, have figured in the court's apportionment of interstate waters. See generally 2 WATERS AND WATER RIGHTS, *supra* note 42, at § 132.5(A).

²⁰⁴ *Nebraska v. Wyoming*, 325 U.S. 589 (1945), discussed in Trelease, *supra* note 2, at 170; *Wyoming v. Colorado*, 259 U.S. 419 (1922).

²⁰⁵ See U.S. CONST. art. I, § 10.

²⁰⁶ 373 U.S. at 564-65.

²⁰⁷ *Id.* at 565-66.

²⁰⁸ *Id.* at 594. See Trelease, *supra* note 2, at 176.

²⁰⁹ 373 U.S. at 586. See Trelease, *supra* note 2, at 183-84.

²¹⁰ 43 U.S.C. § 617d (1964). See Trelease, *supra* note 2, at 183-84.

²¹¹ 373 U.S. at 587-88. This result moved dissenting Justice Douglas to proclaim that the majority had granted the federal government

a power and command over water rights in the 17 Western States that it never has had, that it always wanted, that it could never persuade Congress to grant, and that this Court up to now has consistently refused to recognize.

Id. at 628 (dissenting opinion).

undertaken a comprehensive project for the improvement of a great river and for the orderly and beneficial distribution of water, there is no room for inconsistent state laws."²¹²

2. Takings by the States

Each state may have its own navigation servitude, subordinate to the federal servitude,²¹³ with which the state may acquire water rights without paying compensation.²¹⁴ Interest in the state servitude has arisen only recently,²¹⁵ and many questions remain unanswered. Furthermore, the state doctrines vary so widely that generalizations must be made cautiously. It has been suggested, however, that the states fall into three categories.²¹⁶

In "traditional" or "general rule" jurisdictions, the servitude is confined to takings plainly and directly intended to improve or control navigation.²¹⁷ Consequently, a state taking for an interbasin transfer intended for municipal supply of effluent dilution would require compensation. "Public purpose" jurisdictions, on the other hand, encourage interbasin transfers by allowing uncompensated takings for any government project. In such jurisdictions lower riparians need not be compensated when the transfer diminishes the stream's flow;²¹⁸ in addition, the state servitude, like the federal servitude, extends to the riparian owner's rights of access and navigation.²¹⁹ In Louisiana, the only state

²¹² *Id.* at 587.

²¹³ *Gibson v. United States*, 166 U.S. 269, 273-74 (1897). See Comment, *Eminent Domain—Taking or Injury of Property as Grounds for Compensation—Navigational Servitude*, 19 CASE W. RES. L. REV. 1116, 1119 (1968); Comment, *The State Navigation Servitude*, 4 LAND & WATER L. REV. 521 (1969). A state may also be immune from having to pay compensation under a "trusteeship" theory. Harnsberger 444.

²¹⁴ Hanks, *supra* note 167, at 36 n.11; Comment, *The State Navigation Servitude*, 4 LAND & WATER L. REV. 521 (1969).

²¹⁵ The stimulus seems to have been *Colberg, Inc. v. California ex rel. Dep't of Pub. Works*, 67 Cal. 2d 408, 420-22, 432 P.2d 3, 11-12, 62 Cal. Rptr. 401, 409-10 (1967), *cert. denied*, 390 U.S. 949 (1968), which may make California's servitude the broadest of all. Comment, *supra* note 214.

²¹⁶ For purposes of convenience and organization, the state doctrines of navigation servitude have been categorically grouped in the following scheme: (1) the "general rule" jurisdictions; (2) the "public purpose" jurisdictions; and (3) the Louisiana exception. See Comment, *supra* note 214.

²¹⁷ Harnsberger 444. For an example of a "traditional rule" jurisdiction, see *State v. Masketer*, 1 Ohio St. 2d 11, 203 N.E.2d 325 (1964).

²¹⁸ *Minneapolis Mill Co. v. Board of Water Comm'rs*, 56 Minn. 485, 58 N.W. 33 (1894).

²¹⁹ Plager, *Interference with the Public Right of Navigation and the Riparian Owner's Claim of Privilege*, 33 MO. L. REV. 608 (1968).

in the third category, the servitude includes the banks of a navigable stream.²²⁰

III

ORGANIZATIONAL ARRANGEMENTS FOR INTERBASIN TRANSFERS

In theory, interbasin transfers can be intrastate or interstate in nature. In practice, however, few transfers are purely intrastate because of their effect, regardless of the route traveled by the water. For example, an intrastate transfer of water from a main stream to the basin of one of its tributaries may influence the reunited water flowing into a downstream state; during the transfer the water quality may have been degraded (*e.g.*, by increased mineral content or municipal wastes)²²¹ so that the downstream state now receives water of poorer quality than it did in the past. Similarly, an intrastate, interbasin transfer affects water quantity.

For those few transfers that are totally intrastate the task of establishing an institutional basis for interbasin transfer should be relatively simple; a commission or a quasi-public corporation could study and plan interbasin transfers.²²²

Interstate transfers are another matter; an effective institutional arrangement is lacking.²²³ At present, most interstate transfers result either from activities of federal agencies or from interstate compacts. These arrangements are deficient in that the enabling legislation establishing federal agencies, the planning activities of established agencies, and the negotiations for interstate compacts fail to include directly one very necessary party—the general public. Furthermore, leaving the fu-

²²⁰ See *Wolf v. Hurley*, 46 F.2d 515 (W.D. La.), *aff'd per curiam*, 283 U.S. 801 (1931). See also Wolfe, *The Appropriation of Property for Levees: A Louisiana Study in Taking Without Just Compensation*, 40 TUL. L. REV. 233 (1966); Comment, *supra* note 214, at 534.

²²¹ *E.g.*, Olis & Sprecher, *Legal Aspects of Lake Diversion*, 51 NW. U.L. REV. 653, 661 (1957).

²²² For examples of quasi-municipal corporations being used in intrastate interbasin transfer, see Comment, *Constitutionality of Colorado Statutes Providing for Transmountain Water Diversions*, 25 ROCKY MOUNT. L. REV. 363, 365 (1953).

²²³ Any proposed organization for water resources development must accommodate a myriad of factors. Fox & Craine, *Organizational Arrangements for Water Development*, 2 NATURAL RESOURCES J. 1 (1962). Some have argued that such an organization should be fully integrated (*Haber, Arizona v. California—A Brief Review*, 4 NATURAL RESOURCES J. 17, 25 (1964)), while others argue that it should not be (*Ostrom, The Water Economy and its Organization*, 2 NATURAL RESOURCES J. 55, 72 (1962)). Some suggest that it should be self-regulating. Fox, *New Horizons in Water Resources Administration*, 25 PUB. ADMIN. REV. 61, 66 (1965).

ture of interbasin transfers to state cooperation may be equivalent to inaction.²²⁴ The federal government is the lowest level of government capable of solving most water problems,²²⁵ but the only suitable existing agencies, the Water Resources Planning Act's river basin planning commissions, are forbidden to plan interbasin transfers.²²⁶ Therefore, a new federal agency is required: the Interbasin Transfer Planning Commission (IBTPC), reporting to the National Water Resources Council.

Initially, IBTPC should identify each basin's surplus waters²²⁷ available for interbasin transfer. It is difficult to define the term "surplus," other than to say that it is relative to the needs²²⁸ of present and foreseeable water uses in the source basin. Consumptive uses of water can be measured quantitatively,²²⁹ but planners must also pay special attention to non-consumptive uses in the basin, such as power generation, pollution abatement, navigation, recreation, fish and wildlife protection, and scenic and aesthetic uses.

IBTPC should first ask river basin commissions to identify this available water, but if a basin lacks a commission or if a commission refuses to cooperate, the IBTPC itself should make the determinations.²³⁰ IBTPC hearing boards, made up of individuals conversant with both regional and national water problems, should hold public hearings to consider the positions of all interest groups in each source basin.

Since the economic development of the source basin depends on future uses, the investigation may spur local interests to exhibit sudden new enthusiasm for water-related projects. The number of spurious local claims of intended future development could be significantly reduced by requiring detailed plans and financing arrangements to

²²⁴ Consider the tortured history of the compact negotiations between the lower basin states of the Colorado River, which led to several suits in the Supreme Court in efforts to have the Court divide the water. See Clyde, *The Colorado River Decision—1963*, 8 UTAH L. REV. 299, 303 (1964).

²²⁵ Carver, *A Federal Policy for Development of Western Water*, 14 ROCKY MT. MINERAL L. INST. 473, 485 (1968); Forer, *Water Supply: Suggested Federal Regulation*, 75 HARV. L. REV. 332 (1961). But see Stone, *Interstate Water Compacts*, 24 ROCKY MT. L. REV. 141, 150-53 (1951).

²²⁶ 42 U.S.C. § 1962-1(d) (Supp. IV, 1969).

²²⁷ The proposals for the northwest-southwest diversion all were based on surplus water (J. SAX, *supra* note 122, at 77), and the California intrastate transfers all dealt with surplus waters (Weatherford, *supra* note 8, at 1306).

²²⁸ Weatherford, *supra* note 8, at 1341.

²²⁹ Blaney & Criddle, *Determining Water Requirements for Settling Water Disputes*, 4 NATURAL RESOURCES J. 29, 30 (1964).

²³⁰ This provision should encourage cooperation by existing commissions and stimulate the creation of new ones.

be presented to the hearing board, and, if the project is found to be in the national interest, initiation within a reasonable period. To the extent they serve bona fide local needs, however, local projects should be encouraged. A serious defect in contemporary resource administration is the frequent lack of local initiative in planning for the optimum use of water.

The hearing board or river basin planning commission for each basin should submit a report to the IBTPC containing a hydrological description of the total amount of water in the basin, present uses of that water, amounts of water not currently used, proposed future uses of unused water described in terms of their expected benefit to the source basin, and any resulting surplus or shortage of water. The IBTPC must then determine which of the proposed future uses are in the national interest.²³¹ Those that are not should be excluded from the determination of shortage or surplus in each basin.

The IBTPC should also hold public hearings before deciding which demands should be satisfied with available surpluses. The necessary interbasin transfers should then be listed in order of priority, comprising the Tentative National Master Plan for Interbasin Transfer. After approval or modification by the National Water Resources Council, the Plan should be forwarded to the President for inclusion in his legislative program. Adoption of the Plan by Congress should result in the termination of the IBTPC and the creation of the Interbasin Transfer Commission (IBTC) to implement the Plan²³² and to operate a basically intergovernmental appropriation system.

First, IBTC must provide for the precise determination and perfection of present private uses. Except in states having permit-based appropriation systems, existing private uses should be recorded; if the state is unwilling to provide recording facilities, a federal facility must be created. Recording of present uses will protect the user only against later diminution of his use's value by IBTC projects. State water law will continue to apply to resolve conflicts between users and to value or define private uses, and the state adjudicatory system for water rights will retain jurisdiction over user litigation. Continuation of the

²³¹ Standards may be defined by the legislation creating the IBTPC.

²³² The organization and structure of a water allocation system will "require serious deliberation," so as to avoid the lack of enforcement powers found in most interstate compacts, leave strong control in the federal government, and provide for as much participation as possible by the states. Hart, *Creative Federalism: Recent Trends in Regional Water Resources Planning and Development*, 39 U. COLO. L. REV. 29, 44-45 (1966): In implementing the Plan, IBTC must be ready to constantly revise the Plan to adjust for more accurate determinations of previous estimates of acceptable future uses.

state-created system of water rights should protect private investments made under that system from any uncertainty resulting from IBTC projects. Perfection will also create greater certainty of water rights in jurisdictions in which a user is entitled to merely a reasonable amount of water; he will not be forced to share the water he normally uses with an IBTC project.

Although federal control over surplus water will be absolute, appropriate state and local agencies should continue to manage both present public uses of water and those future non-federal projects approved by the Master Plan. During the period preceding federal interbasin transfer of surplus water, the IBTC may transfer control of those waters to the non-federal agencies. Likewise, if surplus water is not subject to federal interbasin transfer under the Master Plan, the IBTC may transfer control to the non-federal agencies for an appropriate period or until Congress chooses to amend the Master Plan.

The integrated approach of IBTPC/IBTC²³³ is a necessary compromise. Absolute national control may be constitutionally possible,²³⁴ but it is probably politically unfeasible. Strict state or sectional control, on the other hand, has led to poor water resources management and failed to produce an effective market system for water rights.²³⁵ The proposal would preserve private rights through perfection and allow the

²³³ The most attractive constitutional basis for IBTPC/IBTC is probably a combination of the navigation servitude and the general welfare power, which reaches all non-navigable waters. Haber, *supra* note 223, at 24. Takings under the general welfare power require compensation, but takings under the navigation servitude do not. See text at notes 192-94 *supra*. If projects controlled by the IBTC deal only with surplus water, there should be no taking of private rights. If a taking does occur, however, compensation should be made regardless of the basis for the taking. Use of the navigation "servitude to take property for public welfare ends would be an abuse of power" (Harnsberger 452), and compensating takings of private rights is clearly in the national interest or at least good politics. Trelease, *supra* note 8, at 202.

²³⁴ For a discussion of the constitutional powers under which national control might be established, see text at notes 165-220 *supra*. The Supreme Court "steadfastly adheres to the view that the decision-making power in water resource allocation should be an exclusive federal function, regardless of what Congress says." Meyers, *supra* note 100, at 61. In addition, it is becoming increasingly apparent that the states can assert few if any water rights against the federal government (Goldberg, *Interposition—Wild West Water Style*, 17 STAN. L. REV. 1 (1964)), although "[s]everal attempts have been made [by members of Congress] to force the federal government to recognize state water law." Comment, *supra* note 8, at 146. For a partial list of federal bills "purporting to 'settle' or 'clarify' the federal-state relationship in western waters," none of which have come to a vote, see Hanks, *supra* note 167, at 33 n.2. See also Morreale, *Federal-State Conflicts over Western Water—A Decade of Attempted "Clarifying Legislation,"* 20 RUTGERS L. REV. 423 (1966).

²³⁵ Millman, *Economic Considerations for the Design of Water Institutions*, 25 PUB. ADMIN. REV. 284, 285 (1965).

states to control enough water to satisfy their needs. But it would also facilitate control over excess water, and “[t]he power to control water uses by denying permission to start them” is the essential ingredient in water resources planning.²³⁶

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²³⁶ Trelease, *supra* note 10, at 44.

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