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A Proposed Revision of Kentucky's Water Rights Legislation

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A PROPOSED REVISION OF KENTUCKY'S
WATER RIGHTS LEGISLATION

by

Richard Ausness
Principal Investigator

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ABSTRACT

Kentucky's present system of water law consists of a statutory water withdrawal permit system superimposed upon a body of common-law water rights doctrine. The rights of water users are often uncertain under this system, particularly in periods of water shortage. The proposed revision of Kentucky's existing water rights legislation, would greatly reduce the significance of common-law water rights and would remedy some of the weaknesses in the present statute.

Part 1 of the proposed statute establishes an administrative structure; Part 2 deals with water withdrawal permits; Part 3 retains the present statute's provisions on the regulation of dams and impoundments, while Part 4 sets forth the powers and responsibilities of the Kentucky Water Resources Authority. Finally, Part 5, which deals with the regulation of water wells is included as an appendix.

Descriptors;

Legal Aspects*, Legislation, Water Law*, Water Policy,
Water Resources Development

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INTRODUCTION

This report is the result of four years of work sponsored by the University of Kentucky Water Resources Research Institute. The first stage of this research involved an evaluation of the present water allocation framework in Kentucky. Two reports were devoted to this aspect of the project: The Law of Water Allocation in Kentucky (U.K. Water Resources Res. Inst. Rept. No. 86, 1975) and Legal Institutions for the Allocation of Water and Their Impact on Coal Conversion Operations in Kentucky (U.K. Water Resources Res. Inst. Rept. No. 95, 1976).

In the second and final stage of this project, we have completed the draft of a proposed water allocation statute. A substantial portion of this proposed legislation is taken from the present Kentucky water regulatory statute, KRS Chapter 151. We have also relied heavily on elements of the Model Water Code which was developed with the support of the University of Florida Water Resources Research Institute in 1972 and subsequently enacted into law by the Florida Legislature. The proposal set forth in this report is intended to replace the current water regulatory statute in Kentucky. However, it might also serve as a model for other eastern states, particularly those where water supplies are expected to be adequate for the next several decades.

The first portion of this study will be devoted to background material. Chapter I will briefly describe the state's

surface and ground water resources. The common-law water allocation rules will be examined in Chapter II. Chapter III will review the basic features of the present Kentucky statute and Chapter IV will delineate our proposed revisions in general terms. In Chapter V we will discuss some of the constitutional problems associated with replacing the common-law system of water rights with our proposed statute. Next, Chapter VI will present four alternative long-range water allocation proposals.

The section portion of this study, Chapter VII, will consist of the text of our legislative proposal along with a brief commentary for each section.

I. KENTUCKY'S WATER RESOURCES.

Kentucky's climate and topography insure that, with proper management, water will generally be available. The average annual rainfall ranges from 36 to 42 inches in the northern counties, 42 to 47 inches in the central portion of the state, and 47 to 50 inches in the southern area. This produces a 45-inch average annual rainfall.¹ Although there are seasonal variations, rainfall is generally adequate throughout the year.²

Kentucky has 544 square miles of streams, rivers, and lakes and reservoirs.³ The flowing surface waters of the state comprise a network of rivers and streams ranging from the Ohio River and its main tributaries to the small creeks which drain into the Ohio's lesser tributary streams. The Ohio forms the northern boundary of Kentucky for a distance of 664 miles and drains a total area of 204,000 square miles from portions of fourteen states.⁴ About 97 percent of Kentucky's 40,000 square mile area drains into the Ohio River, mainly through seven major river basins: Big Sandy, Licking, Kentucky, Salt, Green Cumberland and Tennessee Rivers. The remaining area, located in extreme western Kentucky, drains directly into the Mississippi River.⁵ There are no natural lakes of any size in the state, but a number of large artificial lakes or reservoirs, such as Lake Cumberland, Kentucky Lake and Lake Barkley, have been created by river impoundment. In addition, throughout the state impoundments on small tributary or headwater streams have created a number of small lakes and ponds for farm use, municipal water supply or recreational purposes.⁶ Finally, there are many large springs,

some flowing several hundred gallons per minute, in Kentucky.⁷

Ground water is also plentiful in many parts of the state. There are five major ground water provinces in Kentucky, the Eastern Coal Field Region, the Blue Grass Region, the Mississippian Plateau Region, the Western Coal Field Region and the Jackson Purchase Region.⁸

The Jackson Purchase Region and the alluvial fill areas along the Ohio River are the richest sources of ground water in Kentucky, but good to moderate supplies are also available from the Mississippian Plateau and Western Kentucky Coal Field regions.⁹

1. R. Krieger, R. Cushman & N. Thomas, Water in Kentucky 10 (Ky. Geol, Survey, Spec. Pub. No. 16, 1969).
2. Kentucky Water Resources Study Commission, Study Report to the Governor and 1960 Legislature 5 (1959).
3. Water Information Center, Inc., Water Atlas, plate 3 (1973).
4. U.S. Army Corp of Engineers, Kentucky Water Resources Development 15, (1975). Normal flows at the Ohio River are largely regulated by navigation structures which provide a channel depth of nine feet. This system consists of nine modern locks and dams and eight order structures. Id. at 17.
5. Kentucky Water Resources Study Commission, Study Report to the Governor and 1960 Legislature 62 (1959).
6. Ky. Dept. of Commerce, Natural Resources of Kentucky 28 (1967).
7. Id. at 30.
8. The Knobs Region is a subdivision which is omitted from ~~some~~ classifications.
9. Kentucky Water Resources Study Commission, Study Report to the Governor and 1960 Legislature 77-79 (1959).

II. COMMON-LAW WATER RIGHTS.

A. The Riparian System.

In America, consumptive rights to surface waters are governed by two major allocation systems, riparianism and prior appropriation. The riparian system is found in the eastern states, while the prior appropriation system prevails in the West.

Under the concept of riparianism, both consumptive and non-consumptive rights arise from ownership of land which borders on natural watercourses such as lakes or streams. However, as a general rule riparian rights do not attach to artificial waterbodies or to difused surface waters.

1. Surface Water Consumptive Use Rules.

There are two doctrines that govern consumptive rights to water under the riparian system, the natural flow doctrine and the reasonable use rule. Under the natural flow doctrine, each riparian proprietor on a watercourse is entitled to have the stream flow through his land in its natural condition, not perceptibly retarded, diminished or polluted by others.¹ The natural flow doctrine, however, allows a riparian proprietor to use as much water as he needs for his domestic or natural uses even if he depletes the entire streamflow.²

Riparian landowners may also divert water for other uses as long as there is no material interference with the natural flow of the watercourse, but a nondomestic use which noticeably affects the natural condition of the stream is actionable by a downstream owner even though he is not using the stream and suffers no actual damages.³

Under modern conditions the natural flow doctrine has little utility since it prohibits many beneficial uses simply because they materially diminish the natural flow of the water.

The reasonable use rule is now the majority position in the eastern United States. Under the reasonable use rule, each riparian proprietor may use the water for any beneficial purpose, provided that the intended use is reasonable with respect to the needs of other proprietors on the stream and does not unreasonably interfere with their legitimate water uses. The determination of the reasonableness of a use is a question of fact and must be resolved on a case-by-case basis. Various factors may be considered, including rainfall, climate, season of the year, customs and usages, size, velocity and capacity of the watercourse, nature and extent of improvements on the watercourse, amount of water taken, place and method of diversion, place of use, previous uses, the object, the extent and type of use, its necessity and importance to society,⁴ and the uses, rights and reasonable needs of other riparians.

The reasonableness of a particular use must be determined by present conditions and not by speculation concerning future circumstances. Hence, in the absence of activity by other riparians,⁵ a single riparian owner may use all of the water in a stream. However, he does not thereby gain any continuing right to the full flow of the stream since upstream owners may commence reasonable uses in the future.⁶ Thus, a use which is reasonable under existing circumstances may later become unreasonable when others initiate new uses on the watercourse.⁷

2. Place-of-Use Restrictions.

Under both natural flow and reasonable use theories water rights are based on ownership of riparian land, a principle which prevents nonriparian landowners from using watercourses and which has led to other use restrictions as well.

Since surface water may be used only on "riparian" land, the courts have developed several tests to determine whether a particular tract is riparian or not. Perhaps the most restrictive is the "source of title" test under which riparian rights are limited to the smallest parcel held under one title in a chain of title leading to the present owner.⁸ The size of a riparian tract cannot be increased by the purchase of contiguous nonriparian land and if the back portion of a riparian tract is sold it loses its riparian character.⁹ Moreover, the subsequent reuniting of a severed tract with the abutting tract will not reestablish its riparian status.¹⁰ Thus, a riparian tract can be decreased, but never increased in those jurisdictions which follow the source of title rule.

The more inclusive "unity of title" rule provides that any tracts contiguous to the abutting tract are riparian if held in common ownership, regardless of when they are acquired.¹¹ This approach permits an increase in the size of a riparian parcel by the purchase of contiguous land even though the added land has been nonriparian ever since its transfer from governmental to private ownership. Given the trend toward larger farms and landholdings in America, application of the unity of title theory will result in a continually expanding quantity of riparian land.

The concept of riparian land is further restricted in some states by the watershed limitation which provides that any part of a tract of land which lies outside the watershed of a body of water is not riparian to it even though the tract itself¹² borders on a natural watercourse and is otherwise riparian.

The watershed limitation is based on the assumption that land beyond the watershed is outside the boundaries established by nature for riparian ownership but that water used on land within the watershed will eventually return to the parent body of water. In the East, this restriction often unduly limits water¹⁴ use and encourages waste of the resource.

A nonriparian use is one in which water is diverted onto nonriparian land. Nonriparian uses, however, are not always prohibited. According to one view, such uses are wrongful per se and riparian owners may obtain appropriate judicial relief even though¹⁵ they have suffered no actual damages. In states which follow the reasonable use rule, however, a plaintiff must usually prove¹⁶ actual damage before he can enjoin a nonriparian use. A few states permit nonriparian uses even though they cause harm to¹⁷ downstream riparian owners; the nonriparian use is simply one factor which is considered in determining whether the use is reasonable in accordance with the requirements of the reasonable use¹⁸ rule.

3. Prescriptive Rights

Most riparian jurisdictions allow both riparian and nonriparian owners to acquire prescriptive rights to particular water¹⁹ uses. In order to ripen into a prescriptive right, the use must

be adverse, notorious, continuous and uninterrupted, and be made under a claim of right or title. To establish a right by prescription the use must be maintained in a manner hostile to the right of the riparian proprietor against whom it is claimed. The use must be visible, open and notorious so that the riparian owner either knows, or should know, that his rights have been invaded. It must also be continuous and uninterrupted for the entire prescriptive period.

The scope of a prescriptive right, once acquired, is measured by the use originally made and actually enjoyed during the prescriptive period. Once a prescriptive rights has been perfected, the water use may be changed at any time as long as the new use does not increase the burden imposed on the servient estate. Finally, prescriptive rights, once acquired, may be lost by abandonment, although mere nonuse is only evidence of an intent to abandon and nonconclusive.

4. Riparian Rights in Kentucky.

Although Kentucky is a riparian state, it was unclear until recently whether it followed the natural flow doctrine or the reasonable use rule since the courts often applied the doctrines interchangeably. Anderson v. Cincinnati Southern Railway, an early case, is illustrative. The plaintiff in Anderson owned a grist mill on a small creek. Two miles above the mill the defendant railroad company constructed a small dam to supply a reservoir of water for its trains. The dam, however, interfered with the plaintiff's mill and he brought suit. The court declared that "[t]he right of every riparian owner to the enjoyment of a stream of running water in its natural state in flow, quantity,

and quality is now well established.²⁷ This language implied that the court was adopting the natural flow theory. Later portions of the opinion, however, were suggestive of the reasonable use rule:²⁸

In Fackler v. Cincinanti N.O. & T.R.C. Co.,²⁹ the defendant railroad placed a dam across a small creek, impounding the water and preventing it from flowing into the plaintiff's land. The court declared that a "proprietor is entitled to have the water of a stream flow to his land in its natural course undiminished in quantity and unimpaired in quality."³⁰ However, relief was denied because the plaintiff could not show any damage.

In City of Louisville v. Tway,³¹ the defendant also dammed a stream, thereby reducing the velocity of its flow. This created a pollution problem for the plaintiff but the court held that the he had failed to show that the defendants had made "unreasonable use of the water from the stream." It also declared that the defendants' dam "did not appreciably affect the flow of water" in the stream and upheld the lower court's refusal to grant injunctive relief since the defendant's actions had not caused any demonstrated harm to the plaintiff's property.

The continuing uncertainty between the natural flow and reasonable use theories led in 1954 to a legislative adoption of the reasonable use rule:³²

The owner of land contiguous to public water shall have the right to such reasonable use of this water for other than domestic purposes or impair existing uses of other owners heretofor established, or unreasonably interfere with a beneficial use by other owners.

Although this provision was repealed in 1966, the reasonable use rule appears to be securely established in this state.

³³
Daugherty v. City of Lexington is the most recent decision on point. In this case the City of Lexington denied a building permit to the plaintiff because he failed to show that his septic tank system would not endanger the purity of city water in a nearby reservoir. The plaintiff argued that his proposed restaurant would be a reasonable use of his land. The court quoted from a Michigan case, People v. Hulbert,³⁴ which set forth a reasonable use formula for water:³⁵

...in determining whether a use is reasonable we must consider what the use is for, its extent, duration, necessity, and its application; the nature and size of the stream, and the several uses to which it is put; the extent of injury to the one proprietor and of the benefit to the other; and all other facts which may bear upon the reasonableness of the use.

According to the court, the determination of reasonable use was a question of fact to which a balancing test must be applied. The necessity of the use of water must be considered and balanced against the harm which would ensue from the use.

Kentucky, like almost all eastern jurisdictions, limits the use of surface water to riparian land. In Bank of Hopkinsville v. Western Kentucky Asylum for the Insane,³⁶ the defendant purchased a small tract of land on a stream, constructed a pumping station, and transported the water for use on nonriparian land located about three-quarters of a mile away. This diversion interfered with the operation of the plaintiff's grist mill and he brought suit to enjoin the defendant from continuing its non-riparian use. The court agreed that the Hospital could not trans-

port the water to a nonriparian tract if this caused injury to a riparian owner.

Kentucky apparently also recognizes prescriptive rights. In W.G. Duncan Coal Co. v. Jones,³⁷ a coal company obtained the right to pollute a stream because the lower riparian owner allowed the defendant's use to continue throughout the statutory prescriptive period.

B. Ground Water.

Subsurface waters are classified as either underground streams or percolating waters, and different consumptive use rules apply to each category.³⁸ Underground or subsurface streams flow in well-defined channels below the earth's surface, generally have ascertainable banks and courses,³⁹ and are subject to the same consumptive use rules that govern surface watercourses.⁴⁰ However, underground streams are relatively uncommon and one who alleges the existence of one usually has the burden of proof on that issue.⁴¹ Furthermore, existence and location of the underground stream must be reasonably ascertainable from the surface without excavation.⁴²

Percolating waters "ooze, seep or filter through the soil beneath the surface, without a defined channel."⁴³ Ground water is presumed to be percolating unless it can be shown that the water is flowing in an underground stream. Although consumptive use rules with respect to percolating ground water are hopelessly fragmented and confused, three major approaches can be discerned in the East: (1) the absolute ownership doctrine, (2) the American rule and (3) the correlative rights doctrine.⁴⁴

1. The Absolute Ownership Doctrine

According to the English or absolute ownership rule, a landowner may extract an unlimited quantity of percolating ground water from his land and use it on overlying or distant lands regardless of injury to adjacent landowners.⁴⁵ The rule imposes liability⁴⁶ only for waste or for malicious injury to another.

2. The American Rule

The American or reasonable use rule,⁴⁷ allows a landowner to use as much percolating ground water as he needs, regardless of any adverse effect on other landowners, as long as the water use is reasonably related to natural use of his overlying land.⁴⁸ The use must be beneficial; malicious or wasteful use is considered unreasonable per se and may be enjoined even though the plaintiff has suffered no actual damage.⁴⁹ As a general rule, however, use of water on overlying land for agricultural, domestic, mining or manufacturing purposes is deemed to be reasonable.⁵⁰

The absolute ownership doctrine and the American rule are virtually the same with respect to the landowner's right to use percolating ground water on overlying land, but differ significantly in their approach to the extraction and transportation of ground water for use in distant areas. The absolute ownership doctrine permits ground water to be transported and used on non-overlying land without liability even though neighboring landowners are injured. According to the American rule, however, the sale or use of water on distant lands is unreasonable and actionable if it impairs the ground water supply of another landowner, even though⁵¹ the defendant's use is beneficial.

3. The Correlative Rights Doctrine

The correlative rights doctrine provides that each owner over a common ground water pool has an equal and correlative right to make a beneficial use of the water on his overlying land. The doctrine provides that ground water must be equitably apportioned among overlying owners in times of shortage, with each owner entitled to no more than his fair and just proportion.⁵²

Some writers view the correlative rights doctrine as an attempt to analogize the law of percolating ground water to the law of surface streams.⁵³ The approach of these two doctrines, with their emphasis on common rights to water, is similar.

As far as equitable considerations are concerned, the correlative rights doctrine is superior to either the absolute ownership doctrine or the American rule since small users are better protected and because the effects of a water shortage are borne proportionately by all users. On the other hand, the correlative rights rule is so indefinite that it is exceedingly difficult to apply to varying conditions.⁵⁴ Moreover, it offers no security to earlier developers by protecting the water supply on which they have relied, nor does it permit landowners to acquire a more secure right to an adequate supply of water by purchase or contract.⁵⁵

4. Ground Water Allocation Rules in Kentucky

Like most states Kentucky recognizes the legal distinction between underground streams and percolating ground water. In Nourse v. Andrews,⁵⁶ a plaintiff owning land on the Muddy River in Logan County tried to stop the City of Russellville from using two springs for its water supply since this caused the river to be

depleted. The plaintiff argued that the springs were part of the source of the river but lost when he was unable to prove this allegation. The court stated that one who alleges the existence of an underground stream has the burden of proof.

Therefore, according to the Nourse case, a landowner may assert riparian rights to underground water only if he can prove the existence of an underground stream. In Commonwealth v. Sebastian,⁵⁷ such proof was established by pointing to a line of green grass which flourished in spite of dry weather.

In the case of percolating ground water, Kentucky originally followed the absolute ownership rule. In Kinnard v. Standard Oil Co.⁵⁸ the court stated that percolating waters "belong to the soil, constitute part of it, and may be used, controlled, or removed by the owner in the same manner that he could the soil through which the water percolates or runs."⁵⁹ In Long v. Louisville & Nashville Railway Co.⁶⁰ the court declared that "The rule is universal that the owner may dig on his own land such wells as he needs, although in doing so he may dig up his neighbor's well."⁶¹ The doctrine was reaffirmed in Nourse v. Andrews.⁶²

The absolute ownership rule, however, was replaced by the American rule of reasonable use in Sycamore Coal v. Stanley.⁶³ In this action, the plaintiff brought suit when the defendant coal company's core hole, used to test for coal, caused the water in his well to disappear. The defendant plugged the hole, but the water rose only 14 inches, as compared to the previous 54-inch level. The court found no evidence to establish the existence of an underground stream, and therefore, assumed the waters to be percolating.

The court limited the landowner over subterranean percolating waters to a "reasonable and beneficial use of the waters. . .and he had no right to waste them, whether through malice or indifference, if, by such waste, he injures a neighboring landowner."⁶⁴ Since the landowner's use was "properly connected with the use, enjoyment and development of the land itself," the court held that he was entitled to all the water he could use despite the adverse effect on his neighbor's supply.

1. Hanks, The Law of Water in New Jersey, 22 Rutgers L. Rev. 621, 628-29 (1968).
2. Buescher, Appropriation Water Law Elements in Riparian Doctrine States, 10 Buffalo L. Rev. 448, 452 (1961); Canton v. Shock, 66 Ohio St. 19, 63 N.E. 600 (1902); Spence v. McDonough, 77 Iowa 460, 42 N.W. 371 (1889); Rilbert v. Dechert, 22 Pa. Super, 362 (1903).
3. Harvey Realty Co. v. Wallingford, 111 Conn. 352, 150 A. 60 (1930); Robertson v. Arnold, 182 Ga. 664, 186 S.E. 806 (1936); Robert v. Martin, 72 W. Va. 92, 77 S.E. 535 (1913); Note, Development of Riparian Law in Alabama, 12 Ala. L. Rev. 155, 158 (1959).
4. Harnsberger, Prescriptive Water Rights in Wisconsin, 1961 Wis. L. Rev. 47, 55.
5. Rancho Santa Margarita v. Vail, 11 Cal. 2d 501, 81 P. 2d 533, 560 (1938).
6. Harnsberger, Prescriptive Water Rights in Wisconsin, 1961, Wis. L. Rev. 47, 60.
7. Lauer, Reflections on Riparianism, 35 Mo. L. Rev. 1, 10 (1970). Both the reasonable use rule and the natural flow doctrine also govern private rights and duties among riparian owners with respect to water quality F. Maloney, S. Plager & F. Baldwin, Water Law and Administration -- The Florida Experience §112.1 (1968).
8. L. Kinney, The Law of Irrigation and Water Rights 789

(2d.ed. 1912); *Rancho Santa Margarita v. Vail*, 11 Cal. 2d 501, 81 P. 2d 533 (1935).

9. *Title Ins. & Trust Co. v. Miller & Lux*, 190 P. 433 (Cal. 1920); 5 R. Powell, *The Law of Property*, ¶ 714 (1973).
10. *Watkins Land Co. v. Clements*, 98 Tex. 578, 585, 86 S.W. 733, 735 (1905); *Yearsley v. Carter*, 149 Wash. 285, 270 P. 804 (1928).
11. *Levi & Schneeberger, Chain and Unity of Title Theories for Delineating Riparian Lands: Economic Analysis as an Alternative to Case Precedent*, 21 *Buffalo L. Rev.* 439, 442 (1972).
12. Comment, 20 *Mich. L. Rev.* 123 (1921); *Johnson & Knippa, Transbasin Diversion of Water*, 43 *Tex. L. Rev.* 1035, 1036 (1965). According to Professor Waite the source of title and one version of the unity of title tests are not concerned with the watershed limitation. The other version adds to the unity of title test the requirement that the land lie within the watershed of the watercourse to which it is riparian. Waite, *Beneficial Use of Water in Riparian Jurisdiction*, 1969 *Wis. L. Rev.* 864, 873; *Sayles v. City of Mitchell*, 60 S.D. 592, 245 N.W. 390 (1932). Professor Clark declares this to be the general rule. 1 *Waters and Water Rights* §53.5 (c) (R. Clark, ed. 1967). On the other hand, Professor Casner contends that the unity of title definition without the watershed limitation is the general rule. 6A *American Law of Property* § 28.55

(Casner, ed. 1952).

13. Note, Limitation on Diversions from the Watershed: Riparian Roadblock to Beneficial Use, 23 S. Car. L. Rev. 43 (1971); Anaheim Union Water Co. v. Fuller, 150 Cal. 327, 88 P. 978 (1907). Most industrial and municipal uses return up to 90 percent of the water diverted; some water used for irrigation is also returned. Johnson & Knippa, Transbasin Diversion of Water, 43 Tex. L. Rev. 1035, 1057 (1965).
14. Marquis, Freeman & Heath, Movement for New Water Rights Laws, 23 Tenn. L. Rev. 797, 832 (1955).
15. Waite, Beneficial Use of Water in a Riparian Jurisdiction, 1969 Wis. L. Rev. 864, 875.
16. Metropolitan Util Dist. v. Merritt Beach Co., 179 Neb. 783, 140 N.W. 2d 626 (1966); Jones v. Conn., 39 Ore. 30, 64 P. 855 (1901); Texas Co. v. Burkett, 117 Tex. 16, 296 S.W. 273 (1927).
17. Lawry v. Sillsby, 82 Vt. 505, 74A. 94 (1909); Poire v. Serra, 106 A. 2d 39 (N.H. 1954); Smith v. Stan-
oling Oil & Gas Co., 197 Okla. 499, 172 P. 2d 1002
(1946); Farham, Improvement and Modernization of New
York Water Law Within the Framework of the Riparian
System, 3 Land & Water L. Rev. 377, 413 (1968).
18. Note, 34 N. Car. L. Rev. 247, 251 (1956).
19. Waite, Beneficial Use of Water in Riparian Jurisdiction, 1969 Wis. L. Rev. 864, 875. Sibbett v. Babcock, 124

Cal. App. 567, 269 P. 2d 42 (1954); S.O. & C. Co. v. Ansonia Water Co., 83 Conn. 611, 78 A. 432 (1910); Manier v. Myers & Johns, 43 Ky. 514 (1844); Harmon v. Carter, 59 S.W. 656 (Tenn. 1900); Martin v. Burr, III Tex. 57, 228 S.W. 543 (1921); Kirk v. Hoge, 122 Va. 519, 97 S.E. 116 (1918); Town of Gordonsville v. Zinn, 129 Ba. 542, 106 S.E. 508 (1921).

20. Shellow v. Hagen, 101 N.W. 2d 694 (Wis. 1960). An act is hostile when it is inconsistent with the true owner's rights of ownership. Thus, a licensed or permissive use can never give rise to a prescriptive right because such uses are not hostile to the titleholder. Stewart v. White, 128 Ala. 202, 30 So. 526 (1901); Moal v. Boyd, 116 Tex. 82, 286 S.W. 458 (1926); Rhoades v. Barnes, 54 Wash. 145, 102 P. 884 (1909).
21. Illinois Steel Co. v. Bilot, 160 Wis. 218, 151 N.W. 258 (1915).
22. At common law there was no fixed period of prescription but the courts by analogy followed the statute of limitations for adverse possession. 2 American Law of Property, §8.52. The common law period is twenty years, but in most states the prescriptive period is determined by statute.
23. Smith v. McElderry, 220 Ala. 342, 124 Sl. 896 (1929); Tinker v. Bessel, 213 Mass. 74, 99 N.E. 946 (1912).
24. 56 Am. Jur., Waters §337 (1947); 93 C.J.S., Waters §185 (1956); contra Burkman v. City of New Lisbon, 246

- Wisc. 547, 19 N.W. 2d 311 (1945).
25. Burkman v. City of New Lisbon, 246 Wis. 547, 19 N.W. 2d 311 (1945).
 26. 86 Ky. 44, 5 S.W. 49 (1887).
 27. 86 Ky. at 49, 5 S.W. at 51.
 28. 5 S.W. at 52.
 29. 229 Ky. 339, 17 S.W. 2d 194 (1929).
 30. 229 Ky. at 343, 17 S.W. 2d at 195.
 31. 297 Ky. at 565, 180 S.W. 2d 278 (1944).
 32. Ky. Acts, ch. 247 §2 (1954). This statute, however, was repealed in 1966. See Ky. Acts, ch. 23 § 39 (1966). There is no similar provision in Kentucky's present water resources legislation, K.R.S. chapter 15 (1975).
 33. 294 S.W. 2d 775 (Ky. 1952).
 34. 131 Mich. 156, 91 N.W. 211 (1902).
 35. 91 N.W. at 217.
 36. 108 Ky. 357, 56 S.W. 525 (1900).
 37. 254 S.W. 2d 720 (Ky. 1953).
 38. 93 C.J.S. Waters §86 (1956).
 39. Canada v. City of Shawnee, 179 Okla. 53, 64 P. 2d 694 (1937); Olson v. City of Wahoo, 124 Neb. 802, 810.

248 N.W. 304, 308 (1933); 2 S. Weil, Water Rights in the Western States §1077 (3d ed. 1911).

40. Gagnon v. French Lick Springs Hotel Co., 163 Ind. 687, 72 N.E. 849 (1904); Evans v. City of Seattle, 182 Wash. 450, 47 P. 2d 984 (1935); Note, Water Law -- Ground Water Rights in Missouri -- A Need for Clarification, 37 Mo. L. Rev. 357, 358 (1972); Comment, The Law of Underground Water: A Half-Century of Huber v. Merkel, 1953 Wis. L. Rev. 491, 499.
41. Ryan v. Zuinlan, 45 Mont. 521, 124 P. 521, 516 (1912); contra Safranck v. Town of Limon, 123 Colo. 330, 228 P. 2d 975 (1951).
42. Collins v. Chartiers Valley Gas Co., 131 Pa. 143, 18A. 1012 (1890); Crescent Mining Co. v. Silver King Mining Co., 17 Utah 444, 54 P. 244 (1898); Hayes v. Adams, 109 Ore. 51, 218 P. 933, 935 (1923); contra Maricopa County Municipal Conservation Dist. No. 1 v. Southwest Cotton Co., 39 Ariz. 65, 4 P. 2d 369, 377 (1931), modified in other respects, 39 Ariz. 367, 7 P. 2d 254 (1932).
43. Clinchfield Coal Corp. v. Compton, 148 Va. 437, 446, 139 S.E. 308, 311 (1927).
44. In the West underground streams have always been subject to appropriation in the same manner as surface waters. Increasingly, these states have moved toward public control and management in the distribution of their percolating ground water as well. Colorado,

Idaho, Montana, Nevada, New Mexico, Oklahoma, Oregon, Washington and Wyoming now have separate ground water codes based on the prior appropriation model. Five other states, Kansas, North Dakota, South Dakota and Alaska, have made their general appropriation statutes applicable to percolating ground water. The remaining western states follow one of the common law rules and do not apply prior appropriation principles to ground water.

45. Stoner v. Patten, 132 Ga. 178, 63 S.E. 897 (1909);
Edwards v. Haeger, 180 Ill. 99, 54 N.E. 176 (1899).
46. Roath v. Driscoll, 20 Conn. 533 (1850); Gagnon v.
French Lick Springs Hotel Co., 163 Ind. 687, 72 N.E.
849 (1904); Greenleaf v. Francis, 35 Mass. (18 Pick)
117 (1836); Wheatley v. Baugh, 25 Pa. 528 (1855);
Rose v. Sacony - Vacuum Corp. 54 R.I. 411, 173 A.
627 (1934); St. Amad v. Lehman, 120 Ga. 253, 47 S.E.
949 (1904).
47. Although the American rule is often called the reason-
able use rule, it should not be confused with the
surface water reasonable use rule.
48. Harnsberger, Deltjen & Fischer, Ground water: From
Windmills to Comprehensive Public Management, 52 Neb.
L. Rev. 179, 205 (1973).
49. Hanks & Hanks, The Law of Water in New Jersey: Ground-
water, 24 Rutgers L. Rev. 621 (1970); 5 R. Powell, The
Law of Property ¶726 (1973).

50. Pence v. Carney, 58 W. Va. 296, 52 S.E. 702 (1905); Drummon v. Whitoak Fuel Co., 104 W. Va. 368, 140 231 Ala. 511, 165 So. 764 (1936); Board of Supervisors v. Mississippi Lumber Co., 80 Miss. 535, 31 So. 905 (1902); Lugar, Water Law in West Virginia, 66 W. Va. L. Rev. 191, 214 (1964).
51. Schenk v. City of Ann Arbor, 196 Mich. 75, 163 N.W. 109, (1917); Canada v. City of Shawnee, 179 Okla. 53, 55 64 P. 2d 693, 697 (1937); Erickson v. Crookston Waterworks, Power & Light Co., 100 Minn. 481, 111 N.W. 391 (1907); Rouse v. City of Kinston, 188 N.C. 1, 123 S.E. 482 (1924).
52. Hanks & Hanks, The Law of Water in New Jersey: Groundwater, 24 Rutgers L. Rev. 621, 638-9 (1970).
53. Kirkwood, Appropriation of Percolating Water, 1 Stan. L. Rev. 1, 6 (1948); McHendrie, The Law of Underground Water, 13 Rocky Mt. L. Rev. 1, 6 (1940). But see F. Maloney, S. Plager & F. Baldwin, Water Law and Administration -- The Florida Experience §54.2 (b) (3) (1968).
54. McHendrie, The Law of Underground Water, 13 Rocky Mt. L. Rev. 1, 6 (1940).
55. Note, Percolating Water Law -- Thories of Ownership and Problems of Distribution in the Western United States, 30 N.Y.U.L. Rev. 1419, 1425 (1955).
56. 200 Ky. 467, 255 S.W. 84 (1923).

57. 345 S.W. 2d 46 (Ky. 1961).
58. 89 Ky. 468, 12 S.W. 937 (1890).
59. 89 Ky. at 471, 12 S.W. at 938.
60. 128 Ky. 26, 107 S.W. 203 (1908).
61. 107 S.W. at 205.
62. 200 Ky. 467, 255 S.W. 84, 86 (1923).
63. 292 Ky. 168, 166 S.W. 2d 243 (1942).
64. 292 Ky. at 169, 166 S.W. 2d at 284.

III. STATE REGULATION OF CONSUMPTIVE WATER USES IN KENTUCKY.

Kentucky's present water regulatory legislation is found in KRS Chapter 151, enacted in 1966. The Department for Natural Resources and Environmental Protection and administers the act.¹ Consumptive uses of water, as well as the construction of dams and impoundments, are regulated. In addition, the legislation provides for water resources planning and authorizes construction for flood control and water development purposes.

One of the statute's most significant features is a permit system by which the Department regulates diversions and consumptive uses of public water.² According to KRS 151.120 (1) "public waters" include "[w]ater occurring in any stream, lake, ground water, subterranean water or other body of water in the Commonwealth which may be applied to any useful or beneficial purpose."

KRS 151.140 declares that "no person, business, industry, city, county, water district, or other political subdivision" may withdraw, divert or transfer public water unless a permit is first obtained from the Department. However, the scope of the Department's regulatory power over public water is substantially limited by the exemptions found in KRS 151.140. These include (1) domestic users; (2) agricultural users, including irrigators; (3) uses exempted by administrative regulation; (4) stream generating plants; and (5) water injected underground in connection with oil and gas production.

Permits are usually issued after an inspection by the

agency to determine whether the applicant's proposed use³ is consistent with the statutory requirements. When the circumstances warrant, the Department may allow less water than the applicant has requested, and permits may be amended at the request of either the Department or the permittee.

KRS 151.180 provide that "any person aggrieved" by an order, determination, regulation or ruling of Department personnel may appeal to the Secretary. This proceeding calls for a full quasi-judicial hearing. Public notice must be given and the hearing is open to the public. The Department may issue subpoenas, administer oaths, and examine witnesses. On the basis of the evidence produced at the hearing, the Secretary makes findings of facts and conclusions of law and enters a decision or final order. The Water Resources Act also provides for judicial review by the agency under KRS 151.180. The scope of this review, however, is limited, and findings of fact by the agency are conclusive⁴ if supported by substantial evidence.

Once a permit is issued, the water user must keep accurate records of all water withdrawn, diverted or transferred⁵ and submit periodic reports to the Department. The agency may, after warning, order the suspension or revocation⁶ of a permit if the owner fails to comply with the conditions of his permit or with provisions of the Act or with related orders, rules or regulations.

The Department may enforce the provisions of the act in a number of ways. It may issue a cease and desist order against one who makes a withdrawal, diversion or transfer⁷ of public water without obtaining the necessary permit.

The agency may also institute court proceedings to enforce
its orders.⁸ Moreover, unauthorized diversions of public
water,⁹ as well as other violations of the Act, may sub-
ject the violator to civil penalties of up to \$1000 per
day.¹⁰

Water rights are made available to more persons under
KRS Chapter 151 than under the common-law rules. KRS 151.-
170 states that no permit shall be denied "to a responsible
applicant who has established an amount of water for which
he has a need for a useful purpose." There is no require-
ment that the applicant be a riparian owner. Furthermore,
municipalities, which are considered nonriparians in most
states,¹¹ are specifically mentioned as eligible applicants.
Thus, in Kentucky, water rights are based on beneficial
use rather than ownership of riparian or overlying land.

KRS 151.170 (1) provides that permits be specific in
terms of quantity, time, place and rate of diversion, trans-
fer, or withdrawal. This approach is similar to the permit
systems of the western prior appropriation states. Water
rights under the common-law rules are considerably more
uncertain.

Most permit systems in the East provide for a water
right of finite duration such as ten or twenty years.¹²
The Kentucky statute, however, does not specify any parti-
cular time limit, nor does it contain any provisions for
renewal.

Finally, during periods of prolonged drought or water

shortage conditions, KRS 151.200 (1) allows the Department to suspend the operation of the permit system and temporarily allocate the available water.

1. KRS 151.130 (1976).
2. KRS 151.140 (1976).
3. KRS 151.170 (2) (1976).
4. KRS 151.190 (1976).
5. KRS 151.190 (1976).
6. KRS 151.125 (9) (1976).
7. KRS 151.125 (10) (1976).
8. KRS 151.125 (11); 151.460 (1976).
9. KRS 151.150 (2) (1976).
10. KRS 151.990 (1974).
11. KRS 151.140; 151.150 (1976).
12. E.g. Model Water Use Act §406 (1958); Iowa Code Ann. §455A.20 (1971); Fla. Stat. Ann. §373,236 (1) (2) (1975 Supp.).

IV. CONSIDERATIONS FOR A REVISION OF KRS CHAPTER 151.

Kentucky's present water regulatory law is defective because it exempts too many classes of water users from regulation; it fails to define clearly the rights of water users during periods of temporary water shortage; and it places no time limit on the water use permit. These are serious weaknesses which severely compromise the effectiveness of the state's water regulatory policy. In this chapter we shall consider new legislation to deal with these and other deficiencies.

Since water supplies in Kentucky are expected to be sufficient in the near future, our proposed legislation is designed to operate in this environment and reflects a philosophy of minimal government regulation. While allocative regulations may be necessary during a water shortage, it is poor public policy to deny water to some users when sufficient water is presently available to satisfy the needs of all. Instead, this proposal seeks to encourage efficient and productive use of water resources by both public and private users. The best way to accomplish this goal is to replace common law water rights with statutory water rights which are definite, secure, and available to all potential users.

Nevertheless, the proposal is a short-range one. Eventually, in perhaps thirty-five or forty years, most of the available water in the state will be fully utilized. At that time the Legislature must be prepared to replace this short-range program with a more comprehensive regulatory framework which can allocate a limited supply of water among various competing users. A few of the alternatives for such a long-range program will be examined later.

A. Exempted Users

Kentucky's present system of water rights is two-tiered. At the top there are water users whose rights are based on common law doctrines and who are exempted from regulation. Below them are the permit holders, whose water rights are statutory. As we have seen, the existence of these two incompatible sources of water rights creates significant problems for both the regulatory agency and the water users themselves. Accordingly, we recommend that the common law water rights regarding both surface water and ground water be replaced with a single statutory water right. This would have at least two beneficial results: First, water rights would be more specific in terms of quantity, as well as time, place and rate of withdrawal; second, common law place-of-use restrictions would be abolished¹ and water would be made available to more users.² This would be particularly helpful to municipal public water suppliers and some industrial users.

Only domestic users would remain completely exempt from regulation.³ These users, taken collectively, do not account for a significant portion of water use in most areas and it would be costly and probably futile to try and regulate them. An exemption would give domestic users a preferred status in the proposed water rights scheme, but this is no different from their status at common law.⁴ Needless to say, only individuals would be exempt from regulation; water companies and municipal water suppliers would be required to obtain permits.

In addition, the regulatory agency, for reasons of economy or

administrative convenience, should also have the power to exempt small-scale nondomestic users from the permit requirements. However, these water users should continue to be regulated insofar as other provisions of the proposed act are concerned. For example, the agency should retain the right to regulate nondomestic small users, along with other non-exempt water users, during periods of temporary water shortage.

B. The Beneficial Use Standard

We believe that statutory water rights should be based on the concept of beneficial use. Beneficial use has been defined as "the use of such a quantity of water, when reasonable intelligence and reasonable diligence as exercised in its application for a lawful purpose, as is economically necessary for that purpose." For more than a century water rights in the West have been based on the beneficial use standard,⁶ and recently this concept has been recognized in the East.⁷

Beneficial use, however, is an absolute rather than a relative standard: A proposed water use is either beneficial or wasteful; beneficial uses are permitted, while wasteful or non-beneficial ones are not.⁸ This means that a regulatory agency would not attempt to characterize one use as "more beneficial" than another for purposes of allocating water. Instead, the agency would continue to award water use permits on a "first come, first served" basis as long as the proposed use was beneficial and water was available. As noted, the present Kentucky Act seems to use this approach already. We recommend that the state continue to grant water use

permits on the basis of beneficial use, but the term should be defined and explicitly incorporated into the regulatory structure.

C. Duration of Water Right

In Chapter 3, the present Kentucky Act was criticized because the water rights created by it were insecure. Accordingly, as part of the short-range plan we suggest that water users be granted a permit of fixed duration for thirty years. This statutory water right should be expressly recognized as a property right which could not be revoked before its termination date unless the permit holder violates the statute or voluntarily terminates his water use. The permit should also be renewable, though not as a matter of right. In addition, the agency should provide a procedure by which rights can be resolved expeditiously and inexpensively.

Although it might be argued that this approach achieves security at the expense of flexibility, it commits the state only for thirty to forty years. Because of the durational limit, permits will begin to expire in the first decade of the next century. If the situation has changed by then to a water-scarce environment, the Legislature will have ample time to design a new allocation system to deal with these changed conditions.

D. Water Right Transfers

Water rights must be transferable if water is to move from less productive uses to more productive uses in response to market forces. However, voluntary transfers are generally prohibited in the East under both common law doctrines and regulatory legislation.

Even where such transfers are permitted, tenure insecurity sometimes discourages potential buyers. In addition, lack of information contributes to excessive transaction costs and inhibits efficient transfers.⁹

Spillover costs, which arise because of the interrelated nature of water use, also present serious difficulties.¹⁰ Many spillover costs problems involve the return flow of surface water-courses.¹¹ Most water uses do not make full consumptive use of the water, but instead return some of it to the watercourse from which it was taken. When a transfer or a change in water use occurs, it may reduce the amount of water that is returned to the stream to the detriment of downstream users. Economists have proposed a number of solutions to the problem of spillover costs. One alternative is simply to prohibit transfers which have significant effects.¹² Another is to allow affected downstream users to recover damages for their injury.¹³ This would discourage transfers when the spillover costs exceed the benefits to transacting parties.¹⁴

E. Temporary Water Shortages

The present Kentucky Act takes a rather casual approach to the problem of temporary water shortages. Although water shortages are infrequent in Kentucky's present water-rich environment, this is precisely the situation in which a consumptive use permit should provide the user with some protection and security.

Our proposal would require the regulatory agency to formulate in advance a plan for use during any future period of water shortage.¹⁵

Among other things, this plan should specify the method for apportioning the available water among the various permit holders in the affected area. Although this may commit the agency to a particular course of action at a time when more flexibility would be desired, water users should know where they stand so that they may provide for inevitable drought periods. Industrial and municipal users in particular might benefit from such information.

If we assume that the agency will make its allocative decisions on a class-by-class rather than on a case-by-case basis, there would seem to be three basic choices available. Probably the best approach is to establish a system of preferences. Water users in a lower preference category would be required to restrict their use of water before users in a higher preference group were forced to cut back. Perhaps water users who would be most severely affected by loss of water should be placed in the higher preference categories. For example, irrigators might be placed in a higher category than municipal water suppliers since the latter might make use of water storage facilities without serious inconvenience.

Another method would be to prorate the available water among all users in the affected area. At first blush the notion of forcing everyone to share the consequences of adversity seems like the fairest way to deal with the problem. (In a way it resembles the surface water reasonable use rule or the ground water correlative rights doctrine.) Nevertheless, this approach might lead to inefficient results since an across-the-board reduction in allowable water use might harm one class of users far more severely than another.

Equitable considerations also support an approach which allocates water on the basis of temporal priority; that is, those with the most recent water right would be the first to be cut off during a period of water shortage. This, of course, is one of the most prominent features of the prior appropriation system of the West. Like prorationing, however, this approach may achieve fairness at the expense of economic efficiency.

F. Water Resources Planning

Ideally, planning responsibility should be concentrated in a single agency.¹⁷ This seldom occurs, however, because of the large number of federal, state and local government agencies involved in water-related activities.

Kentucky, like most states, has planning authority widely dispersed among various instrumentalities of state and local government. At the local level numerous public organizations have a limited planning function in water resource development activities. These include drainage, levee and reclamation districts,¹⁸ soil and water conservation districts,¹⁹ watershed conservancy districts,²⁰ flood control districts,²¹ and water districts.²² Furthermore, municipal and county planning units are authorized under the Zoning Enabling Act to do water resources planning.²³ At the Federal level, planning by agencies such as the U.S. Army Corps of Engineers²⁴ and the Environmental Protection Agency²⁵ may have a significant impact on the water resources of this state.

At the state level the Department for Natural Resources and Environmental Protection has substantial planning responsibilities.²⁶

However, both the Water Resources Authority²⁷ and the governor's cabinet²⁸ also possess planning power in the water resources area. The Department, for example, may study and review all reports concerning or effecting water-related projects within the state which are proposed for construction by federal, state or local government agencies.²⁹ In addition, the Department may review proposals for any project which involves the use of state funds in the construction or maintenance of flood control works or water development purposes.³⁰ Finally, local governmental bodies (and private individuals) must obtain a permit from the Department before they can construct any dam, embankment, levee, dike, bridge, fill or other obstruction across or along any stream.³¹ Thus, it seems that the Department may prevent local water resource development agencies from acting contrary to its own policies.

The Water Resources Authority appears to be primarily concerned with the financing, rather than the planning of state and local water resource development projects.³² Nevertheless, the Water Resources Authority is authorized "to coordinate the programs of all state agencies in the conservation, development and wise use of public water,"³³ and "to promote the beneficial and proper distribution of water throughout the Commonwealth."³⁴ Moreover, the Authority has explicit power to engage in water development planning³⁵ and maintains some supervisory authority over the Department.³⁶ We believe that the relationship between the Department and the Water Resources Authority should be clarified. The responsibility for water resources planning should be concentrated in one agency, and the present statutory ambiguity should be eliminated.

In addition, as part of the planning process, the regulatory agency should establish a minimum flow for all surface watercourses. No permit should be granted that would cause the water level in a stream to fall below this point. ³⁸ The purpose of the minimum flow concept, which is used in a number of states, is to protect activities such as commercial navigation, recreational boating, fishing, hunting, and swimming. It may also be used to control water quality and protect the environment. 37

The regulatory agency should also prohibit or restrict new water uses on certain streams in order to promote such public purposes as recreation, or the preservation of fish and wildlife habitats. This idea originated in the West where several states ³⁹ now allow reservation of water by public agencies.

1. Possibly the regulatory agency should retain the right to reject permit applications that involve transfers of water beyond the watershed from which it was withdrawn.
2. It will probably be necessary to allow nonriparian landowners to condemn rights-of-way in order that they may obtain physical access to the watercourse. Legislation permitting the exercise of eminent domain by private parties for this purpose is common in the western states. 1 R. Hutchins, *Water Rights Laws in the Nineteen Western States* 274-82 (1971).
3. KRS § 151.100(1) (1976) defines "domestic use" as "the use of water for ordinary household purposes, and drinking water for poultry, livestock and domestic animals." See also Iowa Code Ann. § 455A.1 (West 1971).
4. *Winters v. Berea College*, 349 S.W.2d 357 (Ky. 1961); Note, *Acquisition of the Right to Use Water*, 29 Tul. L. Rev. 554, 556 (1955). As a technical matter, the preferred status of domestic users at common law extends to surface water and underground streams but not to percolating ground water.
5. Tex. Rev. Civ. Stat. Ann. art. 7476 (Vernon 1954).
6. *Union Mill & Mining Co. v. Dangberg*, 81 F. 73, 119 (C.C.D. Nev. 1897); *Tulare Irrigation Dist. v. Lindsay-Strathmore Irrigation Dist.* 45 P.2d 972 (Cal. 1935).
7. Fla. Stat. Ann. § 373.109(5) (West 1975); Iowa Code Ann. § 455A.21 (West 1971).

8. The Concept of "duty of water" is an aspect of the beneficial use standard.

It is that measure of water, which by careful management and use, without wastage, is reasonably required to be applied to any given tract of land for such a period of time as may be adequate to produce therefrom a maximum amount of such crops as ordinarily are grown thereon.

Farmers Highline Canal & Res. Co. v. Golden, 272 P.2d 629 634 (Colo. 1954). See also 5 Water & Water Rights § 408.2 (R. Clark, ed. 1972). Some western states have carried this principle a step further and imposed statutory limitations upon the quantity of water per acre that may be appropriated for purposes of irrigation. Idaho Code Ann. § 42-202 (Supp. 1969); Neb. Rev. Stat. §§ 46-231, 240, 242 (1968); Okla. Stat. Ann. tit. 82 § 33 (West 1970); S.D. Comp. Laws Ann. § 46-5-6 (1967). Perhaps the water regulatory agency in Kentucky should be authorized to adopt similar guidelines for use in evaluating certain classes of permit applications.

9. Hartman & Seastone, Welfare Goals and Organization of Decision-Making for the Allocation of Water Resources, 41 Land Econ. 21, 22 (1965). For example, accurate records of water rights promote marketability. Garton, South Dakota's System of Water Management and Its Relation to Land Use and Economic Development, 21 S.D.L. Rev. 1, 46 (1976).

10. Spillover costs occur when an action by one person imposes uncompensated costs on others which are not borne by him. In terms of welfare, these conditions reduce the capacity of the market to achieve an optimal allocation of resources. L. Hartman & D. Seastone, *Water Transfers: Economic Efficiency and Alternative Institutions* 2 (1970).
11. Trelease, *Policies for Water Law: Property Rights, Economic Forces, and Public Regulation*, 5 *Nat. Resources J.* 1, 27 (1965).
12. Milliman, *Water Law and Private Decision-Making: A Critique*, 2 *J. Law & Econ.* 41, 46 (1959).
13. J. Hirshleifer, J. DeHaven & J. Milliman, *Water Supply-- Economics, Technology and Policy* 235 (1960).
14. Another solution to the return-flow problem would be to grant a water user a right to all water that is diverted, including what would otherwise be returned to the stream. Comment, *Toward the Maximization of a Resource: The 1971 Washington Water Resources Act*, 9 *Gonz. L. Rev.* 759, 772-73 (1974). This solution would also encourage water users to use new techniques to reduce the amount of water needed for some uses. At the present time in prior appropriation states, savings of that type would simply increase the return flow to the benefit of downstream appropriations. Note, *Towards an Economic Distribution of Water Rights*, 1970 *Utah L. Rev.* 442, 445-46.
15. See, e.g., *Fla. Stat. Ann.* § 373.246(1) (West 1975).

16. This disadvantage might be offset somewhat if users were permitted, with the approval of the agency, to purchase additional water from other users during periods of water shortage. Thus, when across-the-board reductions were made, those most adversely affected by the cutback would be free to acquire additional water from less-affected water users, while the agency would be able to protect the rights of third parties. See N.M. Comp. Laws §§ 75-40-1 to 7 (1975). See also Trelease, *Alternatives to Appropriation Law*, 6 *Den. J. Int'l L. & Pol'y* 283, 295 (1976).
17. See generally Maloney & Ausness, *Administering State Water Resources: The Need for Long-Range Planning*, 73 *W. Va. L. Rev.* 209, 213 (1971).
18. KRS ch. 266069 (1974).
19. KRS ch. 262 (1974).
20. *Id.*
21. KRS ch. 104 (1974).
22. KRS ch. 74 (1974).
23. KRS § 100.187(5) (1974).
24. 33 U.S.C. § 701-1 (1970).
25. 33 U.S.C. §§ 1252, 1258(d), 1289 (Supp. 1974).
26. KRS § 151.220(1974).
27. KRS § 151.360(2)-(3) (1974).

28. KRS § 147.070(1)(a) (1974).
29. KRS § 151.220(2) (1974).
30. KRS § 151.240 (1974).
31. KRS § 151.250(1) (1974).
32. See KRS §§ 151.360(1), .370-.450 (1974).
33. KRS § 151.360(2) (1974).
34. KRS § 151.360(3) (1974).
35. KRS § 151.370(11) (1974).
36. See KRS § 151.200 (1974).
37. National Water Commission, *New Directions in U.S. Water Policy* 63 (1973). See generally Iowa Code Ann. §§ 455A.1, .22 (West 1971); Fla. Stat. § 373.042 (1973); N.J. Stat. Ann. §§ 58:1-35, -40 (West 1966); Wash. Rev. Code § 90.22.010 (1976). See also Hines, *A Decade of Experience Under the Iowa Water Permit System--Part One*, 7 Nat. Resources J. 499, 537-46 (1967). A similar concept may be used in connection with ground water.
38. It may be desirable to require the regulatory agency to declare a water shortage when withdrawals by permit users cause the water level to drop below the minimum flow level.
39. Several western states expressly authorize the appropriation of water for recreational and other public purposes. See, e.g., S.D. Compiled Laws Ann. § 61.0102 (1967). See also Fla. Stat. Ann. § 373.036(7) (West 1975).

V. THE VESTED RIGHTS PROBLEM.

Both the present Kentucky statute and the proposed revision of KRS Chapter 151 interfere with exercise of common-law water rights. In fact, the proposed act virtually destroys common-law water rights (except for domestic uses) and replaces them with a comprehensive system of consumptive use permits. If common-law water allocation rules are regarded as having created "vested rights" on behalf of riparian landowners (or overlying landowners in the case of ground water), then their abrogation by the state may cause constitutional problems.

As noted a number of eastern states have modified the common law system of water rights and substituted statutory permit systems. Despite the fact that so many states regulate water uses in the East, there have been no direct challenges to the constitutionality of these statutes. The primary reason for this remarkable lack of litigation is that, with the exception of Florida and Iowa, most state regulations are neither comprehensive nor severely restrictive. Thus, the absence of litigation does not suggest that water users might not question the constitutionality of statutory permit systems in the future.

A. Common Law Water Rights as Property

Because of the nature of flowing water, a consumptive use right can never be as secure or complete as the ownership of a book, an automobile, or a house. The corpus of the water in a flowing stream cannot be privately owned until it is diverted or reduced to possession in some fashion, and the water right itself

is limited by the reciprocal rights of other users.¹ Ground water rights at common law are also subject to consumptive and locational use limitations. Nevertheless, common law rights regarding surface and ground water should be considered as property rights within the meaning of due process. Like any other form of property, however, they are subject to the state's police power.

B. The Taking Issue

The police power has been defined as an exercise of the sovereign right of the state to enact laws for the protection of the lives, health, morals, comfort, and general welfare of the people. While property rights are subject to the police power, the concept² of substantive due process limits the exercise of this power.

Substantive due process requires that police power regulations must have a rational relation to the safety, health, morals or general welfare of the community. Regulations to encourage the conservation and more efficient use of the state's water resources promote the general welfare and are almost certainly within the proper scope of the police power.³ Substantive due process also requires regulation to be reasonable and not arbitrary, or oppressive. An unreasonable exercise of the police power will be deemed a taking of property without due process of law.

Over the years, the courts have applied a variety of tests to determine the constitutional limits of the state police power. The "diminution-in-value" test which is probably the most popular test, originated in an opinion by Mr. Justice Holmes in Pennsylvania Coal¹⁴
Co. v. Mahon. He stated:

Government hardly could go on if to some extent values incident to property could not be diminished without paying for every such change in the general law. As long recognized, some values are enjoyed under an implied limitation and must yield to the police power. But obviously the implied limitation must have its limits, or the contract and due process clauses are gone. One fact for consideration in determining such limits is the extent of the diminution. When it reaches a certain magnitude, in most if not all cases there must be an exercise of eminent domain and compensation to sustain the act. So the questions depends upon the particular facts. The greatest weight is given to the judgment of the legislature, but it always is open to interested parties to contend that the legislature has gone beyond its constitutional power.⁵

This test compares the magnitude of economic loss imposed on the regulated party with the harm to the company sought to be prevented by the regulation.⁶

While the great majority of courts continue to employ the diminution-in-value test, some courts have developed other approaches such as the "harm-to-the-public" test. According to this rule, a regulation is not a taking if it relieves society of a prospective or actual harm.⁷

Finally, there is the "public rights approach," which combines an expanded conceptualization of public rights with a presumption that the needs of the public outweigh any burden imposed on an individual landowner. ⁸ Just v. Marinette County ⁹ is the leading case. Just involved the constitutionality of an ordinance which prohibited the filling of wetland areas contiguous to navigable waters without a permit. The court distinguished between restrictions designed to prevent harm to the public and those intended to secure a benefit not presently enjoyed by the public; compensation would not be required in the first class of cases though it might in the second. The court concluded that the shoreline regulations merely prevented a harm and, therefore, did not constitute a taking of property without due process of law. The court also emphasized that the public right to preserve a natural area is superior to an individual's right to preserve a natural area is superior to an individual's right to develop it. ¹⁰

It is not clear whether the Just court's approach will be widely accepted or not. However, if the decision means that developmental value is no longer a property interest within the protection of substantive due process, then widespread adoption of the Just rationale would mean that only existing uses could be protected from confiscatory government regulation.

C. Cases From Western States

Although there are no cases from eastern jurisdictions on the constitutionality of restricting the exercise of common law water rights, ¹¹ there are decisions from the western states. Most of

these cases, which involve the validity of replacing riparian rights with prior appropriation, arose in states where riparian rights had been recognized before the prior appropriation system was adopted. We will briefly examine decisions from California, Oregon, Kansas, South Dakota, North Dakota, and Idaho.

Lux v. Haggin,¹² a California decision, was one of the earliest cases to deal with the problem of riparian rights in a prior appropriation jurisdiction. In the Lux case, the court held that the riparian doctrine had become part of California law as a result of the state's adoption of the common law when it was admitted to the Union and declared that the riparian owner was entitled to the full natural flow of the watercourse; that this right attaches to the land and is not created by use nor lost by nonuse; and that the legislature could not authorize appropriations which interfered with these rights unless the riparian owners were compensated.¹³

This controversy arose again forty years later in Herminhaus v. Southern California Edison Co.¹⁴ The plaintiffs in Herminhaus owned a ranch on the San Joaquin River and sought to enjoin the Southern California Edison Company from constructing dams on the upper reaches of the river for the purpose of impounding water for irrigation on nonriparian lands. The plaintiffs contended that the proposed dam would prevent the annual spring and summer floods which inundated and fertilized their land. The defendant's actions were authorized by a permit issued pursuant to the 1913 California Water Code. Among other things, the Code restricted all water users

to beneficial and reasonable uses, limited the amount of water which could be used to irrigate an acre of cultivated land, and provided for the loss of riparian rights for nonuse after a period of ten years. The court granted the injunction, ruled that the plaintiffs were entitled to the full flow of the stream, and invalidated the statutory provisions discussed above because they violated vested riparian rights.¹⁵

Litigation also arose in Oregon after the legislature enacted a comprehensive water allocation law based on the principles of prior appropriation. The Oregon Code purported to protect vested rights but defined the term to include only the right to continue to use such quantities of water that were actually used beneficially prior to the passage of the Code. It also provided for the loss of vested rights if the riparian owner failed to use his rights for two years.¹⁶ The Code was upheld in the case of In re Willow Creek.¹⁷ While admitting that riparian rights could not be arbitrarily or unreasonably impaired by legislation, the court nevertheless declared that such rights "are subject to such reasonable regulations as are essential to the general welfare, peace, and good order of the citizens of the state."¹⁸

The Oregon Water Code, as amended, was again upheld in In re Hood River¹⁹ by a four to three decision. At issue was a provision that preserved as "vested rights" only beneficial uses in existence at the time of the Code's passage. The court declared:

No one has any property in the water itself,
but a simple usufruct. It was within the
province of the Legislature, by the act of

1909, to define a vested right of a riparian owner, or to establish a rule as to when and under what condition and to what extent a vested right should be deemed to be created²⁰ in a riparian proprietor.

In effect, the court concluded that the inchoate riparian right to unused water had never been a vested interest.

A final challenge to the constitutionality of the Oregon Water Code was made in California-Oregon Power Co. v. Beaver Portland Cement Co.²¹

The court sustained the constitutionality of the Code and remarked that "[l]ike other property . . . riparian rights are subject to the police power of the state and within reasonable limits may be modified by legislation passed in the interest of the general welfare."²² The court then characterized the right of the riparian owner as a usufruct of the water and not ownership of the water itself. According to the court, "[l]egislation limiting the right to its use is in itself no more objectionable than legislation²³ forbidding the use of real property for certain purposes." Thus, the legislature could modify common law water rights in the interest of securing a fairer distribution of the resource as well as to²⁴ prevent economic and physical waste.

In 1945, Kansas, like Oregon, revised its water rights laws to emphasize the prior appropriation element. The Kansas Act declared that "[s]ubject to vested rights, all waters within the state may be²⁵ appropriated for beneficial use However, it also provided that nothing therein would impair the vested right of any person²⁶ except for nonuse. Another section allowed any riparian owner

injured as a result of an appropriation under the Act to claim damages against the appropriator to the extent of any "property taken."²⁷ Finally, the Act defined "vested right" as "the right . . . to continue the use of water having actually been applied to any beneficial use . . . to the extent of the maximum quantity and rate of diversion for the beneficial use made thereof"²⁸

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State ex rel. Emery v. Knapp,²⁹ was the first in a series of state and federal court decision upholding the constitutionality of the 1945 Kansas Act. In Knapp, the state's chief engineer granted a permit pursuant to the Act which allowed an irrigation district to divert water for use on nonriparian land in such a manner as to diminish substantially the flow available to downstream riparians. The riparian owners argued that the Act was unconstitutional interference with vested property rights. In sustaining the 1945 Act the court remarked:

We have difficulty in seeing that the owner of land in Kansas riparian to the Republican River has a vested interest in flood waters of the river impounded in the Harland dam, eighty miles or more from his property. If he thinks he has such rights, and they have been damaged by the impounding of the water in the dam and its use for irrigation in Nebraska and Kansas, the statute gives him a right to bring a suit for such damages.

Even though prior decisions of a state court may have established a rule of property, a departure therefrom in a subsequent decision does not, without more, constitute a deprivation of property without due process of law under the fourteenth amendment.

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Instead, the court maintained, the legislature had the power to modify or reject the doctrine of riparian rights if it was unsuited to conditions in the state and adopt the doctrine of prior appropriation. In the court's words, ". . . we do not regard a landowner as having a vested right in underground waters underlying his land which he has not appropriated and applied to beneficial use."

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The Knapp and Baumann decisions were followed in Williams v. City of Wichita. AS in the Baumann case, the plaintiff was concerned with ground pumping by the City of Wichita. The City had obtained a permit under the 1945 Act to appropriate ground water on a tract near the plaintiff's farm. The landowner brought suit on the theory that the Act was unconstitutional insofar as it purported to subordinate his common law ground water rights to the City's appropriative rights. The trial court agreed with the plaintiff and declared the Kansas Act unconstitutional.

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On appeal the Kansas Supreme Court reversed and upheld the validity of the appropriation statute insofar as the rights of the plaintiff were concerned:

We find nothing in the Act which in any manner offends the Fourteenth Amendment to the Constitution of the United States or in any way violates

the constitution of Kansas. There is no inhibition in our constitution against legislation such as this regulatory Act which we find to be a proper and valid exercise of the police
36
power.

In reaching its decision, the court first determined that the Act was a water conservation measure and, as such, was within the proper scope of the legislature's regulatory power. In order to promote economic development in the state, the legislature had determined that allocation of water should be based on beneficial use and priority without regard to ownership of overlying land and that waste and underdevelopment would occur if water was reserved in perpetuity for common law owners who might never have a use for it.

The court also rejected the plaintiff's contention that his right to ground water was vested as a result of earlier judicial decisions recognizing the absolute ownership doctrine in Kansas. According to the court: ". . . the legislature may change principles of common-law and abrogate decisions made thereunder when in its opinion it is necessary to the public interest. . . ." ³⁷ The court in Williams determined that prospective uses of ground water were not considered "vested rights" as defined by the Act and, therefore, could not be superior to appropriative rights acquired according to the procedures of the 1945 Act. The court noted, however, that the landowner might be able to utilize the Act's damages provision if he could show an actual injury to his land as the result of the City's well-drilling and water extraction

activities. Finally, the court cited the Knapp case with approval and declared that Knapp's reasoning with respect to unexercised water rights applied with equal force to both surface and ground water even though their respective common law allocation rules were different.

The validity of the South Dakota appropriation statute as it affected the use of percolating ground water came before the court in Knight v. Grimes.³⁹ The plaintiff in the Knight case had only irrigated a small part of land with ground water prior to 1962. When he sought to increase his water use he was required to obtain a permit from the State Water Resources Commission as an appropriator. As such, of course, his right to the additional water would be subordinate to those of any senior appropriator. The plaintiff instead brought a declaratory judgment action against the state water engineer and the Commission, contending that under prior case law, he had a vested right to the underlying ground water.

The court upheld the appropriation statute, observing that since common law water rights were not property in the constitutional sense, water use doctrines could be modified or rejected entirely without constituting a taking of property. In addition, the court declared that even if water rights were regarded as vested property interests, they were still subject to regulation under the police power⁴⁰ if required by the general welfare.

Litigation over ground water rights also occurred in North Dakota, where a 1955 Act made ground water available for appropriation. In Volkman v. City of Crosby,⁴¹ the court declared that presently exercised uses of percolating ground water were vested

in the overlying landowner and held that the plaintiff's vested water rights were superior to those of one who made a subsequent appropriation under the 1955 Act. Nevertheless, the same court in a later case held that unused rights to ground water were not protected from appropriation under the Act.⁴² While presently exercised uses (as of the time of enactment) were vested rights, the court rules that the state could exercise its police power and make unused ground water available to appropriators without impairing the property rights of surface owners.

The taking issue arose in Idaho in Baker v. Ore-Ida Foods, Inc.⁴³ In Baker, a senior appropriator sued to prevent a junior appropriator from withdrawing ground water in excess of the annual recharge rate. Idaho's ground water appropriation statute prohibited such "mining" of the resource. In response, the junior appropriator argued that the court should apply the common law correlative rights rule, under which each overlying landowner is entitled to a pro-rata share. The court, however, rejected this argument even though it conceded that the correlative rights doctrine might have applied at one time in Idaho. As the court put it "[t]he doctrine of correlative rights is repugnant to our constitutionally mandated prior appropriation doctrine."⁴⁴ In effect, the court held that any allocation rights a landowner formerly possessed under the correlative rights doctrine had been validly abrogated by passage of the appropriation statute.

On the basis of the cases just discussed, the following principles appear to be well-settled, at least in western jurisdictions: First, conservation of the state's water resources is an appropriate

area of legislative concern.⁴⁵ Second, common law doctrines of judicial origin are not inflexible, but may be modified within limits, as warranted by changing economic and social conditions.⁴⁶ This applies to both surface water rules,⁴⁷ and ground water rules. Third, in the interests of promoting the efficient use of the state's water resources, the legislature can extinguish riparian rights⁴⁸ which are not being exercised. Unused common law rights to ground⁴⁹ water can likewise be terminated without compensation. Fourth, although common law rights may be terminated, presently exercised water uses are "vested rights" which cannot be abrogated by the legislature without compensation.⁵⁰ This principle is tacitly recognized in other California doctrine states such as Texas and Oklahoma where presently exercised uses are expressly preserved by statute.

D. Constitutionality of Proposed Legislation in Kentucky

So far, the constitutionality of Kentucky's present water allocation statute has not been challenged. This is probably because so many water users are being exempted from regulation. Of the major categories of water use--domestic, agricultural, municipal and industrial--only industrial users have any basis for raising the taking issue. Since the Act exempts domestic and agricultural⁵² users from regulation they are not affected. Municipal users, who are subject to the permit requirements, possessed no riparian rights at common law, and so have not been disadvantaged by the Act's partial abrogation of common law water rights. Only the re-

maining class, the industrial users, have some cause to complain. Industrial users, including mining and commercial users, who formerly possessed riparian rights now have a statutory water right of dubious value and uncertain duration. However, while this group of users might argue that the present Kentucky Act constitutes a taking of private property without due process of law, it is doubtful that any litigation will occur until the regulatory agency terminates a permit or refuses to issue one to a former riparian owner.

What happens when we examine our statutory proposal in light of the principles derived from western case-law? The first three principles present no serious problem. According to the first principle, water conservation legislation, such as the short-range plan, is within the scope of the state's police power. The second principle upholds the right of the legislature to modify common law water allocation rules. Thus, the shift from a system of common law water rights to one of statutory water rights should not be invalid. The third principle is a corollary of the second: One way in which common law doctrines can be modified is to terminate unexercised water rights. Our statutory proposal, with the exception of domestic uses, would also accomplish this.

The fourth principle provides that presently exercised water uses are vested rights which may not be terminated without compensation, although they may, of course, be regulated like other forms of property. This principle is seemingly at variance with the essential features of the proposed statute.

Our statutory proposal does not actually terminate existing

uses but rather provides for their conversion into permit rights. Arguably, the conditions for a permit under this approach are reasonable. The requirement that common law consumptive uses be "beneficial" has generally been upheld in the West.⁵³ In addition, several courts have sustained the validity of statutes which require the holders of common law rights to secure a permit from a regulatory agency in order to preserve their rights against subsequent appropriators.⁵⁴ Therefore, we may assume that this aspect of the proposal is valid.

The real issue is the extent to which an existing user is injured by surrendering his common law water rights for those of a permittee. The forced exchange of one type of water right for another is not necessarily unconstitutional. In effect, that is what happened when many western states replaced their common law ground water rules with a prior appropriation system. Existing ground water uses were quantified and converted into appropriative rights. The common law user in Kentucky, however, unlike his counterpart in the West, may justifiably contend that he has been forced to make a poor "exchange." While common law water rights were exchanged for permanent appropriative rights in the West, the owner of such rights in Kentucky would receive a permit right of limited duration under our statutory proposal. Arguably, the loss that he has suffered on the transaction may represent a taking of property without due process. The security of the statutory water right is important: The less secure the permit right, the more likely a court would be to declare the statute unconstitutional. Thus, there may be a constitutional problem if common law water

users are forced to accept a permit of short duration or one which may be prematurely terminated by the regulatory agency without compensation.

We believe that the water right created in our short-term proposal is secure enough to withstand this sort of constitutional challenge. Since most existing water users would be able to satisfy the beneficial use requirement, they would obtain a thirty-year permit. Moreover, we feel that the courts would refuse to hold that a taking had occurred until an existing water use was actually curtailed; therefore, the constitutional issue would not arise until the regulatory agency refused to renew a permit at the expiration of the thirty-year term. If the courts adopted this approach, they could then resolve the taking issue on a case-by-case basis.

Once an existing common law water use was actually curtailed by denial or nonrenewal of a water use permit, the validity of the agency's action in that particular case would probably depend on the court's choice of a taking test. In all probability the diminution-in-value test discussed earlier would be used since Kentucky courts have employed a similar rationale on many occasions in the past.⁵⁵ Applying this formula, a court would have to determine the extent of actual harm that a landowner suffers when common law water rights are restricted or completely abrogated. Since water rights in the East are not usually transferable, the value of a water right must be measured primarily in relation to a particular tract of land. Thus, if a water right was completely destroyed, we would look at the diminution-in-value not of the water right itself, but the land to which it is appurtenant. For example, in

8. Comment, Regulation of Land Use: From Magna Carta to a Just Formulation, 23 U.C.L.A. L. Rev. 904, 923-31 (1976).
9. 20. N.W.2d 761 (Wis. 1972).
10. "An owner of land has no absolute and unlimited right to change the essential natural character of his land so as to use it for a purpose for which it was unsuited in its natural state and which injures the rights of others. The exercise of the police power in zoning must be reasonable and we think it is not an unreasonable exercise of that power to prevent harm to public rights by limiting the use of private property to its natural uses." 201 N.W.2d at 768.
11. The Omernick cases from Wisconsin seem to be the only authority on the issue in the East. In *Omernick v. State*, 218 N.W.2d 734 (Wis. 1974), a landowner was convicted of irrigating his land without a permit in violation of a Wisconsin statute. The law required the state to grant an irrigation permit if surplus waters were involved or if riparians who would otherwise be harmed consented. Since the landowner, a riparian owner, never applied for a permit, it is not clear whether he would have been entitled to it as a matter of right under the statute.

The court rejected the landowner's contention that the statute was a denial of equal protection because it regulated irrigators but not industrial users. In addition, the court held that the state could exercise its police power "to protect public rights and to prevent harm to the public by un-

an area where irrigation is necessary, loss of a common law water right might virtually destroy the value of a farm. If the farm was not suitable for some other productive use, the diminution in value as a result of the regulation would probably be sufficient to constitute a taking. In cases where the regulatory agency forced a permit holder to obtain his water from a more distant source of supply, the courts might also treat the capitalized cost of obtaining water from this new source as a diminution-in-value. No doubt in some instances this sum would be large enough to require compensation.

At present the public rights test of Just v. Marinette County is not used in Kentucky. Even under the Just rationale, however, presently exercised water rights would probably be entitled to constitutional protection. However, this Wisconsin case possibly could be used to sustain a regulatory agency's decision to deny new consumptive use permits in order to prevent expansion of existing uses or initiation of new ones in some areas to protect minimum stream flows or to promote recreational or environmental interests.

In conclusion, the requirements of substantive due process will impose some constraints on the design of a water allocation system. The risk of constitutional infirmity becomes greater as the regulatory agency is given more power to transfer water rights from one group of water users to another without compensation in order to achieve a more efficient allocation pattern. However, the more modest approach suggested by our statutory proposal should not encounter any serious constitutional difficulties.

controlled diversion of water from lakes and streams." 218 N.W. 2d at 743. Applying the rationale of *Just v. Marinette County*, 201 N.W.2d (Wis. 1972), the court also concluded that the regulation did not constitute a taking of property without due process of law since the statute sought to prevent harm rather than to confer a benefit on the public.

The landowner again challenged a provision of the Wisconsin statute in *Omernick v. Department of Natural Resources*, 238 N.W. 2d 114 (Wis. 1976). This time the issue involved the Department's action in designating the watercourse involved as a trout stream under the Act's provisions, in effect protecting it from excessive depletion by irrigators. Although the case was primarily concerned with procedural due process considerations, the court affirmed its holding in Omernick I that the regulation of consumptive uses was a valid exercise of the police power. Speaking of the first Omernick case, the court said:

The necessary implication of this holding [Omernick v. State] is that the legislature in the exercise of its police power has abrogated the common law riparian right of irrigation and has substituted the permit procedure under sec. 30.18, Stats. This has the result of introducing an element of prior use in the Wisconsin water law which was not there at the common law. The wisdom of this policy may be debatable, but it is a legislative, not a judicial determination.

The Omernick case, if read broadly, will support the notion that common law water rights are subject to regulation under the state's police power. However, we should remember that the landowner was not denied a permit since he never applied for one; a presently-exercised right was not abrogated; and the court relied on the Just case, rather than the more conventional diminution-in-value approach, to resolve the taking issue.

12. 10 P. 674 (Cal. 1886).
13. See generally Scurlock, Constitutionality of Water Rights Regulation, 1 Kan. L. Rev. 125, 139 (1952).
14. 252 P. 607 (Cal. 1926).
15. In 1928, a constitutional amendment was adopted that limited riparian rights to such water as was reasonably required for the beneficial use to be served. Cal. Const. art. XIV, § 3. This provision was upheld in *Chow v. City of Santa Barbara*, 22 P.2d 5 (Cal. 1933). Nevertheless, riparian rights are still protected in California. As the court declared in *Peabody v. City of Vallejo*, 40 P.2d 486, 495 (Cal. 1935): "Any use by an appropriator which causes substantial damage thereto, taking into consideration all of the present and reasonably prospective recognized uses, is an impairment of the right for which compensation must be made." See generally *United States v. Gerlach Livestock Co.*, 339 U.S. 725 (1950).

32. City of Emporia v. Soden, 25 Kan. 588 (1881).
33. 145 F. Supp. at 625.
34. Id. at 624-25.
35. 374 P.2d 578 (Kan. 1962). The action was originally brought in a federal court, but was dismissed. Williams v. City of Wichita, 279 F.2d 375 (10th Cir. 1960).
36. 374 P.2d at 595.
37. Id. at 589.
38. The court declared that "the legislature [can] define 'vested rights' of common-law water uses." Id. at 594. Additionally, the court said "[n]or do we regard such a landowner as having a vested right. . .to ground water underlying his land. . . ." Id. at 595.
39. 127 N.W.2d 708 (S.D. 1964).
40. See generally, Note, Water Rights and the Constitutionality of the 1955 South Dakota Water Act, 11 S.D.L. Rev. 374 (1966).
A controversy over the effect of the 1955 Act on surface water rights arose in Belle Fourche Irrigation Dist. v. Smiley, 176 N.W.2d 239 (S.D. 1970). This was a suit by an irrigation district to enjoin a riparian landowner from interfering with the rights of the district by diverting for irrigation purposes waters which had been impounded by a dam and released into the river by the Bureau of Reclamation for the use of

48. McCook Irrigation & Water Power Co. v. Crews, 96 N.W. 996 (Neb. 1903); Belle Fourche Irrigation Dist. v. Smiley, 176 N.W.2d 239 (S.D. 1970).
49. Baumann v. Smrha, 145 F. Supp. 617 (D. Kan. 1956); Baeth v. Hoisveen, 157 N.W.2d 728 (N.D. 1968).
50. Herminghaus v. Southern Cal. Edison Co., 252 P. 607 (Cal. 1926); Lux v. Haggin, 10 P. 674 (Cal. 1886); Clark v. Cambridge & Arapahoe Irrigation & Improvement Co., 64 N.W. 239 (Neb. 1895); Volkmann v. City of Crosby, 120 N.W.2d 18 (N.D. 1963) (ground water); St. Germain Irrigating Co. v. Hawthorn Ditch Co., 143 N.W. 124 (S.D. 1913); Neilson v. Sponer, 89 P. 155 (Wash. 1907).
51. Tex. Rev. Civ. Stat. Ann. art. 7542a, § 4 (Supp. 1970); Okla. Stat. Ann. tit. 82, § 105.2 (West 1972).
52. Possibly downstream unregulated water users could bring a constitutional challenge against the statute if they were harmed by the Department's grant of water use permits to upstream non-riparian users such as municipalities.
53. Tulare Irrigation Dist. v. Lindsay-Strathmore Irrigation Dist., 45 P.2d 972 (Cal. 1935); Lone Tree Ditch Co. v. Cyclone Ditch Co., 91 N.W. 352 (S.D. 1902); Biggs v. Lee, 147 S.W. 709 (Tex. Civ. App. 1912); 2 W. Hutchins, Water Rights in the Nineteen Western States 95-97 (1974).

54. State ex rel. Emery v. Knapp, 207 P.2d 440 (Kan. 1949); Knight v. Grimes, 127 N.W.2d 708 (S.D. 1964).
55. E.G., Hobbs v. Markey, 398 S.W.2d 54 (Ky. 1966); Moore v. Ward, 377 S.W.2d 881 (Ky. 1964); City of Richlawn v. McMakin, 230 S.W.2d 902 (Ky. 1950); Schloemer v. City of Louisville, 182 S.W.2d 782 (Ky. 1944).
56. 201 N.W.2d 761 (Wis. 1972).
57. Section 54 of the Kentucky Constitution states that "The general assembly shall have no power to limit the amount to be recovered for injuries resulting in death, or for injuries to person or property." In addition, § 14 declares that "all courts shall be open and every person, for an injury done him in his lands, goods, person or reputation, shall have remedy by due course of law. . . ." Although these provisions limit the power of the legislature to abolish common law tort actions, Ludwig v. Johnson, 49 S.W. 2d 347 (Ky. 1932) (automobile guest statute), it is doubtful that they would apply where the underlying **property** right is abolished or modified, as in the case of common law water rights. The validity of such legislative action should instead be determined by reference to substantive due process requirements.

VI. LONG-RANGE PROPOSALS: FOUR ALTERNATIVE ALLOCATION SYSTEMS

Although Kentucky's water resources are adequate at the present time, greater reliance on irrigation in agricultural operations, increased urban and industrial growth along with the evolution of new technologies such as coal conversion will all contribute to a rising demand for water in the years ahead. Eventually, demand for water will exceed the available supply¹ and it will be necessary to develop a mechanism for allocating the state's limited water resources among the various competing users and uses. This chapter will consider four alternatives for accomplishing this objective. Each involves some form of allocation by an administrative agency, but most also permit market forces to operate.

A. Short-Term Permits

The issuance of short-term water use permits is a common aspect of water regulation policy in the eastern states. Iowa, for example, limits permits to a 10 year term,² while the Florida Water Resources Act sets a maximum period of 20 years.³ This approach reflects a philosophy that water is a public resource⁴ which should not be entirely left to private control. In addition, legislation of this sort implicitly assumes that an administrative agency can allocate water more efficiently than market forces.⁵

This alternative also allows the state water regulatory agency to deal with reallocation problems in a flexible manner. In particular, the agency would be able to correct prior mistakes, utilize new data in the decision making process and respond to changing

needs and values. Moreover, the use of short-term permits, when coordinated with state land use controls, would facilitate long-range planning and would allow the government to direct growth along rational lines.⁶

On the other hand, economists and others have argued that this approach creates a climate of uncertainty regarding water resources and discourages capital investment. The use of short-term permits, according to one commentator, merely substitutes the uncertainties of administrative decision making for the uncertainties of common law rules.⁷ Since short-term permits seldom last long enough to allow for amortization, entrepreneurs must gamble on whether their permits will be renewed. If the permit is renewed at the expiration date, all is well but if the agency rejects the renewal application the water user may lose a part of his original investment. The risk of nonrenewal may create similar problems during the term of a permit. For example, suppose an irrigation system of pumps and sprinklers, which initially cost \$40,000, hopelessly breaks down in the fifteenth year of a 20 year permit.⁸ Will it be replaced?

Opponents of the short-term permit approach have expressed doubts that an administrative agency can allocate water as efficiently as the market. They are also concerned with arbitrary behavior or corruption on the part of the regulatory agency⁹ and these fears are not entirely illusory.¹⁰ Finally, there is a question of fairness. Quite apart from considerations of efficiency, the propriety of destroying the value of one person's property in order to benefit another is open to serious question.

B. Variable-Term Permits

Some commentators argue that a water right should last for the duration of the user's operation or enterprise.¹¹ In the case of irrigation or municipal water supply, a water permit based on this principle might be granted in perpetuity, although one for a mining operation might last only until the mineral involved is completely extracted. Unfortunately, although a water rights system based on long-term permits provides maximum security for water users, it may not be efficient in the long run less it also contains a mechanism for reallocation.

One proposal, recommended for eastern states by the National Water Commission, would achieve reallocation through involuntary transfers.¹² Under this approach permits would be granted for a period long enough for the water user to amortize his investment. Depending on the nature of the enterprise, permits might be issued for terms of up to 50 or 60 years.¹³ Moreover, the regulatory agency would be required to renew the permit indefinitely unless it determined that water was needed for a higher public purpose such as municipal water supply, recreation or environmental protection.¹⁴ This would protect most productive uses even after full amortization of the original investment but would still allow the state to recapture water without cost for legitimate public uses.¹⁵

Although reallocation can occur from private to public uses, an inefficient pattern of water use may still result unless transfers among private users are also allowed. Unfortunately, there are problems with permitting voluntary transfers under a variable-term permit scheme. For example, suppose a farmer obtains a 40-year

permit and sells it to an industrial user 30 years later. Let us assume that the industrial user would require 60 years to amortize his investment. Presumably, the water right obtained from the farmer would be good for another 10 years, the remainder of the original permit term. When it comes up for renewal, assuming that the water is not required for a higher public use, what duration period should be used for the new permit? Should it be 40 years, the length of the original term, or 50 years, the remaining period needed to amortize the investment of the new user?

If the goal of protecting initial investment is to be met, the 50 year period seems appropriate. However, it should be noted that the new user would sustain an uncompensated loss if the water regulatory agency refused to renew the original permit when it expired. In our example, the farmer's permit had 10 years to run when purchased by the industrial user. If this permit was not renewed, the new user would lose more than eighty percent of his investment.¹⁶ A possible solution to this problem would be to issue the new user another permit at the time he buys out the earlier user. In our example, when the farmer and the industrial user reached an agreement over the sale of the farmer's water right, they would request the water regulatory agency to issue a new permit based on an amortization period appropriate to the new user's operation. If the agency determined that the water was needed for a higher public use, it would deny the request. The projected transfer would not take place, but the farmer would still retain his water right for the remainder of the permit's term, 10 years in our case. If the agency agreed to the request, assuming no third parties

were adversely affected by the proposed transfer, it would issue a new permit to the industrial user which in our example would be valid for 60 years. Like the original permit, this water right would be renewable indefinitely, subject to the state's right to reallocate the water for higher public uses at each renewal period. 17

C. Permits of Perpetual Duration

The third alternative places more emphasis on the market as a reallocation mechanism. Under this approach, the water regulatory agency would issue permits of a perpetual nature on a "first come, first served" basis as long as water was available. These water rights would be transferable, subject to agency approval in order to protect public rights and third-party interests.

Water rights of perpetual duration are, of course, a prominent feature of prior appropriation. As mentioned earlier, the prior appropriation system has been proposed in a number of eastern states in the past thirty years. Undoubtedly, a water right of perpetual duration is secure enough to encourage capital investment, a necessary requirement for optimum use. Reallocation will occur as conditions warrant by voluntary transfers among water users. In this fashion, market forces should eventually achieve the most efficient allocation pattern possible. Moreover, the minimum flow and reservation concepts discussed earlier in our short-range proposal could be utilized in order to protect environmental, recreational, and aesthetic interests.

Unfortunately, like the other long-range alternatives, this approach also has its disadvantages. Perhaps the most serious problem is inflexibility. At least in the West there is evidence that prior appropriation tends to force water uses into a rigid pattern based on the original appropriations.¹⁸ This may be due to the fact that changes in use or location, while theoretically possible,¹⁹ are often difficult to make in practice. In the West transfers are particularly hard to arrange when they involve a change from a nonconsumptive to a consumptive use, thereby diminishing the rate of return flow to the stream and impairing the rights of downstream users.²⁰

However, if an efficient water use pattern cannot be achieved by means of voluntary transfers alone, the state could also allow involuntary transfers through the use of a preference system. This device, which is found in some prior appropriation jurisdictions, utilizes a system of preference categories which allows a water user in a one preference category to condemn the water right of a user in a lower preference category.²¹ For example, if industrial uses were placed in a higher category than agricultural uses, an industrial user could acquire a farmer's water right in a condemnation action. Of course, the industrial user would have to pay the farmer the fair market value of his water right and also indemnify third parties for any losses they would sustain as a result of the proposed change in use. The requirement for compensation not only satisfies due process requirements but also insures that the transfer will take place only when the new user can make a more productive use of the water than the original user.²²

D. The "Pseudo-Market" Approach

In this country, scare resources are usually allocated on the basis of prices in a competitive market,²³ particularly when economic efficiency is an important consideration.²⁴ Although water has economic value as a factor of production, water use is not always strongly influenced by market forces. Consequently, some economists have advocated the use of a pseudo-market administered by the state.²⁵ This device would enable water users to recognize and respond to the actual cost of their water use, including both the cost of delivering the water and the "opportunity cost" or values forgone by diverting the water from other potential uses.²⁶

Under one such proposal the state would expropriate all existing water rights and allow an administrative agency to allocate the available water among competing buyers within a particular hydrologic area at demand-generated prices.²⁷ The agency would accomplish this function by the sale of "water certificates" which would allow the holder to withdraw a specific amount of water from the area until the certificate's expiration period. These certificates would be sold or leased among users subject to the agency's supervision.

The sale of water rights by the state, as opposed to giving them away without cost, not only promotes an efficient initial allocation pattern, but it also prevents water users from obtaining "windfall" profits when they transfer their water rights. In addition, the agency could use the revenue generated from such

sales in order to finance water conservation and development progress.

At the end of a fixed period the certificates would revert to the agency and would be offered for sale again. The expiration dates of the initial certificates would be staggered so that some water would be available each year for sale by the agency. The agency would secure water for public purposes in a given year by not re-issuing some of the certificates which had expired, and when necessary, it could also purchase additional certificates from existing users at market places.

Of course, there are many problems that must be overcome if the pseudo-market is to allocate the state's water resources efficiently. First of all, the agency must determine how much water is available in a particular area for allocation purposes. Undesirable shortages will occur if the agency sells too many water certificates. The agency must also determine the optimum duration period for its water certificates.

Finally, it may have to take measures to prevent some users from monopolizing the available water supply or manipulating the price of certificates.

The pseudo-market approach is an intriguing one, particularly when viewed as a long-term solution to the problem of efficient water allocation. However, it remains to be seen whether such a complex system could actually operate effectively in practice.

1. Within limits the supply of water within a region can be increased by desalting, precipitation augmentation, better land management practices, and the importation of water from other areas. See generally National Water Commission, Water Policies for the Future 335-63 (1973).
2. Iowa Code Ann. § 455A.20 (West Supp. 1977).
3. Fla. Stat. Ann. § 373.236 (West 1974). See also Model Water Use Act § 406 (1958); Model Water Code § 2.06 (1972).
4. See J. Hirshleifer, J. DeHaven & J. Milliman, Water Supply-- Economics, Technology, and Policy 246-46 (1960).
5. National Water Commission, Water Policies for the Future 286-87 (1973).
6. Moses, Water as a Tool for Recreational Land Use Planning, 24 Syracuse L. Rev. 1047 (1973); White, Water as a Tool in Land Use Control, Legal Considerations: An Exploratory Essay, 20 Rocky Mtn. Min. L. Inst. 671 (1974).
7. Trelease, The Model Water Code, the Wise Administrator and the Goddam Bureaucrat, 14 Nat. Resources J. 207, 216 (1974).
8. This example is taken from F. Trelease, Water Law: Resource Use and Environmental Protection 434 n.3 (2d ed. 1974).
9. Trelease, The Model Water Code, the Wise Administrator and the Goddam Bureaucrat, 14 Nat. Resources J. 207, 211-17 (1974).

10. The rather poor record of zoning agencies in this request stands as a warning to those who would put their faith in the desirability of resource allocation by governmental bodies. See generally R. Babcock, *The Zoning Game* (1966); Dukeminier & Stapleton, *The Zoning Board of Adjustment: A Case Study in Misrule*, 50 Ky. L.J. 273 (1962).
11. Trelease, *Alternatives to Appropriation Law*, 6 Den. J. Int'l L. & Pol'y 283, 286 (1976).
12. National Water Commission, *The Water Policies for the Future* 286-87 (1973).
13. According to one estimate, the normal period for depreciation of a manufacturing plant is 40 years and some plants have useful lives of 60 years or more. Trelease, *The Model Water Code, the Wise Administrator and the Goddam Bureaucrat*, 14 Nat. Resources J. 207, 219 (1974).
14. This avoids a situation where the permit holder, who obtained his water right without cost, gains a windfall profit when the state is forced to reacquire the water for a higher public purpose.
15. Presumably no compensation would be required if a permit is not renewed when it expires if the water user's investment has been amortized. A similar principle applies in zoning law when non-conforming uses are terminated after the expiration of an amortization period. It should be pointed out, however, that the water user incurs a loss even though there is no taking in the constitutional sense.

16. In our example, only 10 years of a 60-year amortization would have elapsed before the new user's water right was terminated by the agency's refusal to renew the permit. Thus, 5/6 of the original investment (plus the cost of acquiring the water right from the farmer) would be unamortized.
17. In its proposal, the National Water Commission suggests that variable-term permits be subject to renewal "for a similar period" unless the agency reallocates the water to a higher public purpose. National Water Commission, *Water Policies for the Future* 286-87 (1973). This would mean renewal periods of up to 60 years or more for some users. If the variable-term permit approach is adopted, a uniform renewal period of 40 or 50 years is recommended for operations like agriculture and industrial uses which have a potentially long useful life.
18. Lauer, *Reflections on Riparianism*, 35 *Mo. L. Rev.* 1, 17 (1970); Maloney, *Florida's New Water Resources Law*, 10 *U. Fla. L. Rev.* 119, 127 (1957).
19. Seastone & Hartman, *Alternative Institutions for Water Transfers: The Experience in Colorado and New Mexico*, 39 *Land Econ.* 31 (1963); Trelease, *Policies for Water Law: Property Rights, Economic Forces, and Public Regulations*, 5 *Nat. Resources J.* 1, 33 (1965); Yeutter, *A Legal-Economic Critique of Nebraska Watercourse Law*, 44 *Neb. L. Rev.* 11, 41 (1965).
20. Davis, *Australian and American Water Allocation Systems Compared*, 9 *B.C. Indus. & Com. L. Rev.* 647 (1968).

21. Fisher, Western Experience and Eastern Appropriation Proposals, in *The Law of Water Allocation in the Eastern United States* 75, 123-27 (D. Haber & S. Bergen, eds. 1958); Thomas, Appropriations of Water for a Preferred Purpose, 22 *Rocky Mtn. L. Rev.* 422 (1950).
22. This example was chosen because the average value product of consumptive water use is usually higher in industry than in agriculture. Ciriacy-Wantrup, Concepts Used as Economic Criteria for a System of Water Rights, 32 *Land Econ.* 295, 301 (1956).
23. Prices have an important function in the market process. Where total resources are limited, the output of one commodity can increase only if resources are diverted to it from the production of something else. A misallocation of resources occurs when the benefits from the increase of one commodity do not exceed the cost of foregone alternative products and services. Prices reflect these costs to consumers and provide them with an incentive to increase consumption when the real benefits exceed the real costs.
24. Society seeks to achieve an optimal or efficient allocation of resources on the theory that, given a particular distribution of wealth, this reflects a point at which human welfare is maximized. An optimal allocation is achieved when it is impossible by rearranging to benefit anyone without injuring someone else. Note, *Economic Implications for Arizona's Ground*

Water Law, 1972 Law & Soc. Order 626, 634. For a discussion of the concept of efficiency and its role in resource allocation theory, see L. James & R. Lee, Economics of Water Resources Planning 43-118 (1971). McKean, Products Liability: Trends and Implications, 38 U. Chi. L. Rev. 3, 24-42 (1970).

25. Wollman, Economic Factors in the Study of Water Use, in The Law of Water Allocation in the Eastern United States 565 (D. Haber & S. Bergen, eds. 1958); Johnson, An Optimal State Water Law: Fixed Water Rights and Flexible Market Prices, 57 Va. L. Rev. 345 (1971).
26. Campbell, et al. Water Management in Ontario--An Economic Evaluation of Public Policy, 12 Osgoode Hall L.J. 475, 500 (1974).
27. Kiker & Lynne, Water Allocation Under Administrative Regulation: Some Economic Considerations, S.J. Agr. Econ. 57 (Dec. 1976).
28. The agency should set aside sufficient water to maintain minimum stream flows and protect public interests when it calculates the amount of water that is available for sale.
29. The integrity of the pseudo-market system would be compromised if the promised water was not available. One commentator suggests prorationing during periods of shortage. Kiker & Lynne, Water Allocation Under Administrative Regulation: Some Economic Considerations. S.J. Agr. Econ. 57, 62 (Dec. 1976).

VII. A PROPOSED STATUTE AND COMMENTARY

This chapter includes the text of a proposed revision of KRS Chapter 151 along with a section-by-section commentary. The statutory text is written in ordinary typeface while the commentary follows in italics. The commentary explains the purpose of the particular section or subsection that it is concerned with. The source of each statutory provision is also indicated in the commentary. The word See is used if a portion of the proposed statute is taken directly from another statute, while the symbol Cf. means that the provision in question merely resembles another statutory provision in a general way.

Part 1 deals with administrative matters including a declaration of policy, the powers of the Department, definitions, hearings, judicial review and water resources planning.

Part 2 is concerned with consumptive use permits. The mechanics of the permit system are set forth along with such matters as temporary water shortages.

Part 3 involves the regulation of dams and impoundments while Part 4 deals with the Kentucky Water Resources Authority and the funding of water resources development projects. The provisions of Parts 3 and 4 have been taken from the current Kentucky statute with only minor changes and, therefore, are discussed only briefly in this chapter.

Part 1

Administration

1-1 Short Title

This act shall be known as the Kentucky Water Resources Act of 1978.

1-2 Water resources, policy stated

The conservation, development and proper use of the water resources of the Commonwealth of Kentucky has become of vital importance as a result of population expansion and concentration, industrial growth, technological advances and an ever increasing demand for water for varied industrial municipal and recreational uses. The advancement of the safety happiness and welfare of the people and the protection of property require that the power inherent in the people be utilized to promote and to regulate the conservation, development and most beneficial use of the water resources. It is hereby declared that the general welfare requires that the water resources of the Commonwealth be put to the beneficial use to the fullest extent of which they are capable, that the waste or nonbeneficial use of water be prevented, and that the conservation and beneficial use of water be exercised in the interest of the people. Therefore, it is declared the policy of the Commonwealth to actively encourage and to provide financial, technical or other support for projects that will control and store our water resources in order that the continued growth and development of the Commonwealth might be assured. To that end, it is declared to be the purpose of this statute to permit, regulate, and participate in the construction or financing of facilities to store surplus surface water for future use; to conserve and develop the ground water resources of the Commonwealth; to protect the rights of all persons equitably and reasonably interested in the use and availability of water; to prohibit the pollution of water resources and to maintain the normal flow of all streams so that the proper quantity and quality of water will be available at all times to the people of the Commonwealth; to provide for the adequate disposition of water among the people of the Commonwealth entitled to its use during severe droughts or times of emergency; to prevent harmful overflows and flooding; to regulate the construction, maintenance and operation of all dams and other barriers of streams; to prevent the obstruction of streams and floodways by the dumping of substances therein; to keep accurate records on the

amount of water withdrawal from streams and water courses and reasonably regulate the amount of withdrawal of public water; and to engage in other activities as may be necessary to conserve and develop the water resources of the Commonwealth of Kentucky.

Commentary. *The proposed act's declaration of policy acknowledges the importance Kentucky's water resources and affirms the authority of the state through the exercise of its police power to promote the beneficial use of water. This section also authorizes a variety of regulatory and developmental programs to insure that the act's objectives are achieved. This provision is modeled after section 151.110 of the present Kentucky statute.*

1-3 Definitions

As used in this chapter, the words listed herein shall have the following respective meanings, unless another or different meaning or intent shall be clearly indicated by the context:

(1) The word "authority" shall mean the water resources authority of Kentucky;

Commentary. *This definition is found in KRS Sec. 151.100(2).*

(2) "Authorized representative" shall mean an individual specifically authorized by the secretary to act in his behalf;

Commentary. *This term appears in KRS Sec. 151.100(16).*

(3) The word "beneficial use" shall mean the use of water for a useful and productive purpose in such a quantity and manner as is necessary for efficient utilization.

Commentary. "Beneficial use" is one of the most important concepts in the proposed statute. This definition is similar to that used in the West.

(4) The word "dam" shall mean any artificial barrier, including appurtenant works, which does or can impound or divert water, and which either (1) is or will be twenty-five (25) feet or more in height from the natural-bed of the stream or watercourse at the downstream toe of the barrier, as determined by the department or (2) has or will have an impounding capacity at maximum water storage elevation of fifty (50) acre-feet or more;

Commentary. This definition limits the scope of Part 3, which regulates dams and impoundments. It is the same as that presently used in KRS Sec. 151.13.

(5) The word "department" shall mean the department for natural resources and environmental protection;

Commentary. This term also appears in KRS Sec. 151.100(2).

(6) The word "division" shall mean the division of water resources;

Commentary. This definition is taken from KRS Sec. 151.100(3).

(7) The word "domestic use" shall mean the use of water for ordinary household purposes, and drinking water for poultry, livestock, and domestic animals;

Commentary. This phrase, which is used in KRS Sec. 151.100(10), is similar to the definitions of "domestic use" used in the water regulatory legislation of other eastern states. Cf. Model Water Code Sec. 1.03(6).

(8) The word "floodplain" shall mean the area in a watershed that is subject to inundation;

Commentary. *Subsection (11) is taken from KRS Sec. 151.100(8).*

(9) The word "floodway" shall mean that area of a stream or watercourse necessary to carry off flood water as determined by the secretary;

Commentary. *This term is also used in KRS Sec. 151.100(7).*

(10) The word "ground water" or "subterranean water" shall mean all water which fills the natural openings under the earth's surface including all underground watercourses, artesian basins, reservoirs, lakes, and other bodies of water below the earth's surface;

Commentary. *This comprehensive definition of ground water includes both percolating ground water and underground streams. See KRS Sec. 151.100(6).*

(11) "Owner" shall mean any person who owns an interest in, controls, or operates a dam.

Commentary. *Subsection (15), which is used primarily in connection with Part 3, appears in KRS Sec. 151.100(18).*

(12) The word "person" shall mean any individual, public or private corporation, political subdivision, government agency, municipality, copartnership, association, firm, trust, estate, or other entity whatsoever;

Commentary. *This definition makes clear the broad scope of the proposed Act's regulatory provisions. In particular, one should note that state and governmental agencies are subject to the statute's provision. See KRS Sec. 151.100(14).*

(13) The word "reservoir" shall mean any basin which contains or will contain the water impounded by a dam;

Commentary. This term appears in KRS Sec. 151.100(17) but is also similar to Section 4.01(4) of the Model Water Code.

(14) "Secretary" shall mean the secretary of the department for natural resources and environmental protection;

Commentary. Subsection (18) is taken from KRS Sec. 151.100(15).

(15) The word "stream" or "watercourse" shall mean any river, creek or channel, having well-defined banks, in which water flows for substantial periods of the year to drain a given area, or any lake or other body of water in the Commonwealth.

Commentary. This definition includes virtually every form of contained surface water but does not include diffused surface water. See KRS Sec. 151.100(4).

(16) The word "watershed" shall mean all of the area from which all drainage passes a given point downstream;

Commentary. This term is taken from KRS Sec. 151.100(9).

(17) The words "water resource project" or "project" shall mean any construction, development, improvement or any other activity intended to conserve and develop the water resources of the Commonwealth;

Commentary. Subsection (21) appears in KRS Sec. 151.100(11).

(18) The word "withdraw" or "withdrawal of water" shall mean the actual removal or taking of water from any stream, watercourse or other body of public water.

Commentary. This provision, which is used in connection with water withdrawal permits, appears in KRS Sec. 151.100(12).

1-4 Authority and powers of secretary

The secretary shall exercise the following authority and powers:

(1) To administer and enforce the provisions of this chapter and all rules and regulations and orders promulgated thereunder.

(2) To conduct or obtain investigations, research, experiments, training programs and demonstrations, and to collect and disseminate information relating to the safe construction, operation, or maintenance of dams, reservoirs, and wells.

(3) To adopt, after giving public notice and affording an opportunity to all interested persons to appear and offer evidence at a public hearing in connection therewith, general rules and regulations for flood control and water resources which he deems necessary to accomplish the purpose of this chapter. Such rules and regulations, which shall have the force and effect of law, shall be of uniform application as far as practicable, but they may take proper account of differences in topography, geology, soil conditions, climate, hydrology, and use of the reservoir and the lands lying in the floodplain downstream from the dam;

(4) To adopt, without notice or hearing, rules and regulations with respect to procedural aspects of hearings, the filing of reports and orders, the issuance of certificates of inspection, construction permits, water withdrawal permits, and other procedural matters;

(5) To issue orders requiring the adoption by an owner of remedial measures necessary for the safety of life, or public or private property, or for carrying out the provisions of this chapter, or rules and regulations issued thereunder;

(6) To examine and approve or disapprove applications for construction permits for the construction, enlargement, repair, or alteration of dams;

(7) To establish standards for the safe construction, enlargement, repair, alteration, maintenance, or operation of dams and reservoirs. Such standards shall be issued in the form of regulations as described in subsection (3) or this section;

(8) To make such investigations or inspections as necessary to determine the condition of a dam to insure

compliance with any provisions of this chapter, including the right to enter at any time upon an area affected for such purposes and the right of ingress and egress across intervening properties;

(9) To order the suspension or revocation, after warning, construction permit or water withdrawal permit for failure to comply with any of the provisions of this chapter or with any rules, regulations or orders adopted pursuant thereto, or with any of the conditions contained in or attached to the construction permit or water withdrawal permit;

(10) To order the immediate cessation of any act that is started or continued without a construction permit or water withdrawal permit as required by the provisions of this chapter.

(11) To institute and prosecute all such court actions as may be necessary to obtain the enforcement of any order issued by the department in carrying out the provisions of this chapter.

Commentary. *This section confers various powers upon the Secretary of the Department for Natural Resources and Environmental Protection. These powers include rule-making, planning, investigatory and enforcement authority. Together these powers enable the Department to administer the proposed statute's numerous provisions. This section is taken from the present KRS Sec. 151.125.*

1-5 Petition for hearing; notice; conduct of hearings; findings; appeal

(1) Except as provided in section 4-6 regarding emergency situations, any person aggrieved by any order, determination, regulation, or ruling of the department may, within thirty (30) days of the effective date of such order, determination, regulation, or ruling, make application to the secretary for a hearing thereon.

(2) Upon receipt of a written petition from the petitioner pursuant to this section, the department shall give the petitioner thirty (30) days' written notice of the time and place of the hearing, but in no case shall such hearing be held later than sixty (60) days from the receipt of the written petition. All

hearings shall be open to the public. Notice of any and all hearings shall be given at least thirty (30) days prior to the scheduled date of the hearing by public advertisement in a newspaper of general circulation in the county affected, giving the date, time, place, and purpose of such hearing.

(3) In connection with the hearing, the department shall issue subpoenas in response to any reasonable request by any party to the hearing requiring the attendance and testimony of witnesses and the production of evidence relevant to any matter involved in the hearing. The department may administer oaths and examine witnesses. In case of refusal to obey a subpoena issued to any person, the circuit court of the county in which the person resides upon application by the department, may issue to the person an order requiring him to appear before the department, there to produce documentary evidence if so ordered or to give evidence touching the matter under investigation or in question; and any failure to obey the order of the court may be punished by the court as a contempt of court.

(4) On the basis of the evidence produced at the hearing, the secretary shall make findings of fact and conclusions of law and enter such decisions and orders, as in his opinion will best further the purposes of this chapter, and shall give written notice of such decisions and orders to the petitioner. The decision issued under this subsection shall be issued no later than thirty (30) days following the close of the hearing by the department.

(5) The decision of the department shall become final and binding on all parties, subject to judicial review as provided in section 1-6.

Commentary. *This section gives the Department the power to conduct quasi-legislative and adjudicatory hearings. Its provisions provide a simple and expeditious means to resolve disputes between the Department and a water user. Such disputes may occur when the Department refuses to issue a consumptive use permit to an applicant or allows him less water than he requested. The permit holder and the Department may also disagree about a modification of the permit terms. Disputes may also arise over revocation*

of a permit or failure to renew a permit at the expiration of its term. The Department may also be called upon to adjudicate disputes between two permit holders or between a permit holder and other members of the public. See KRS Sec. 150.180

1-6 Judicial review on appeal; procedure

Any person aggrieved by a final order of the department may obtain a review of the order by filing in the circuit court of the county in which the applicant resides, within thirty (30) days after entry of the order, a written petition praying that the order be modified or set aside in whole or in part. A copy of the petition shall be forthwith served upon the department, and thereupon the department shall certify and file in court a copy of the record before the department, including therein all pleadings, orders, documentary exhibits and stenographic transcript of testimony before the department. When these have been filed, the court shall have exclusive jurisdiction to affirm, modify, enforce or set aside the order, in whole or in part. No objection to the order may be considered by the court unless it was urged before the department or there was reasonable grounds for failure to do so. The findings of the department as to the facts, if supported by substantial evidence, are conclusive. If either party applies to the court for leave to adduce additional evidence, and shows to the satisfaction of the court that the additional evidence is material and that there were reasonable grounds for failure to adduce the evidence in the hearing before the department, the court may order the additional evidence to be taken before the department in such manner and upon such condition as the court may consider proper. The department may modify its findings as to the facts, by reason of the additional evidence so taken; and it shall file any modified or new findings with the court, which if supported by substantial evidence shall be conclusive, and may file any recommendation for the modification or setting aside of the original order. The commencement of proceedings under this section does not, unless specifically ordered by the court, operate as a stay of the department's order. An appeal may be taken from the judgment of the circuit court on the same terms and conditions as an appeal is taken in any civil action.

Commentary. *Since all disputes may not be resolved at the administrative level, we have retained the provisions for judicial review which are presently found in KRS Sec. 151.190.*

1-7 Water resources studies

The department shall:

(1) Study and review for the state as its official agency, all survey reports, engineering reports, and other reports concerning or affecting water related projects within the state which are proposed for construction by the federal government, the state government or any agency or subdivision thereof, or which will involve the expenditure of federal or state funds, and which might affect flood control or the development of water resources of the state, and to act as the official representative of the state in any representations, recommendations, or requests to congress or the general assembly concerning such projects or the priority which should be accorded them with relation to the statewide program;

(2) Cooperate with any local, state or federal agency, or the agencies of any other state engaged or proposing to engage in any work which will affect or be affected by the functions of the department and may lend to or receive from any such agency such financial assistance as may be necessary within the limits of authorized expenditure;

(3) Have, for flood control and water resources development purposes, jurisdiction over all streams within or bordering upon the state. The department shall have the authority to establish and enforce floodways along such streams;

(4) Have authority to accept and use gifts, contributions, donations and grants;

(5) Be the official state agency for determination of stream mileage.

Commentary. *The Department presently has the power to conduct studies in connection with various state and federal programs. This provision is intended to preserve this authority and at the same time complement the additional planning responsibilities imposed on the Department by the provisions of section 1-9. Cf. KRS Sec. 151.220.*

1-8 Surveys of project on behalf of state

On its own initiative or when so directed by the governor, the department shall make a preliminary survey and report of any project which involves or might involve expenditure of state funds or construction work by the state of Kentucky in the construction, reconstruction, or maintenance of any flood control works or other works concerning or affecting the development of water resources. If the department, with the approval of the governor, finds from such preliminary survey that the project is not favorable, no further action shall be taken on such project without specific instructions or authorization by the general assembly. If the department finds from such preliminary survey that such project is favorable on a basis of need, economic value or future development, it shall, with the approval of the governor, cause a comprehensive final survey and report to be prepared, and submit such report to the governor for approval and authority to perform the necessary construction work.

Commentary. *The Department is currently responsible for conducting preliminary studies on proposed state-funded flood control and water resource development projects. The proposed statute retains this provision. See KRS Sec. 161.240.*

1-9 Water Resources Planning

(1) The department shall study the existing water resources of the state, means and methods of conserving and augmenting such water resources, and existing and contemplated needs and uses of water. The department shall formulate a plan for the use and development of the waters of the state based on the above studies.

Commentary. *This provision authorizes the Department to engage in water resources planning. This planning is intended to provide a rational basis for the administration of the water withdrawal permit system.*

(2) As part of this planning process the department shall establish the following:

(a) Minimum flow for surface watercourses. The minimum flow for a given watercourse shall be the limit at

which further withdrawals would be harmful to the water resources and ecology of the area.

(b) Minimum lake level for all fresh water lakes and ponds greater than 100 acres. The minimum level of a given lake or pond shall be the level at which further withdrawals would be harmful to the water resources and ecology of the area.

(c) Minimum ground water level. The minimum ground water level shall be the level of ground water in an aquifer at which further withdrawals would be harmful to the water resources of the area.

Commentary. Subsection (2) provides for the establishment of a minimum flow for surface watercourses, as well as minimum lake and ground water levels. It is essential that any system of water allocation include a minimum flow for public purposes. Commercial navigation, recreational boating, fishing, hunting, and swimming, and ecological protection are some of the public purposes that should be protected under the minimum flow concept. See Model Water Code Sec. 1.07(4).

(3) The minimum flow, minimum lake level, and minimum ground water level shall be calculated by the department using the best information available. Where appropriate, minimum flows and levels may be calculated to reflect seasonal variations. The department shall also consider and at its discretion may provide for the protection of nonconsumptive uses in the establishment of minimum flows and levels.

Commentary. Subsection (3) indicates that minimum flow and levels do not necessarily have to reflect precisely historical average minimum flows and levels. Rather, minimum flows and levels act as guidelines in the granting of permit rights and the protection of non-consumptive uses. In addition, these figures may be used in connection with the implementation of water shortage provisions. It should be noted that the Department may establish monthly figures in order to take account of seasonal variations. See Model Water Code Sec. 1.07(5).

(4) The department shall condition water withdrawal permits in such a manner as to preserve minimum flows and levels established under this section.

Commentary. *Subsection (4) prohibits the granting of any consumptive use permit that would adversely affect the maintenance of minimum flows and levels. See Model Water Code Sec. 1.07(6).*

(5) The department shall give careful consideration to the requirements of public recreation, the protection of the environment, and procreation of fish and wildlife. The department may prohibit or restrict other future consumptive uses on certain designated streams which may be inconsistent with these objectives.

Commentary. *Under subsection (5) the Department may reserve unused waters for the purpose of public recreation, protection of the environment, and procreation of fish and wildlife. Existing water users, however, will not be affected by this provision unless compensation is paid. Several western states allow reservation of water from appropriation by permit applicants. In this fashion the most effective protection can be given to such public purposes as recreation, the preservation of fish and wildlife habitats, and dilution of wastes where complete purification is impossible. Another application of the reservation power is to allow for future water development projects. A potential project may be conceived of long before actual need arises, and a large and comprehensive project may be contemplated years before final developments are completed. Such projects may be jeopardized if less desirable uses are permitted to utilize the same water source. See Model Water Code Sec. 1.07(7).*

(6) The department may also designate certain uses in connection with a particular source of supply which, because of the nature of the activity or the amount of water required, would constitute an undesirable use for which it may deny a water withdrawal permit.

Commentary. Under the provisions of subsection (6) certain uses may be declared undesirable because of the likelihood that they will adversely affect the environment in the surrounding area. In such cases the Department is authorized, but not compelled, to deny a consumptive use permit. It is intended that this device will prevent some uses altogether in areas where they are likely to be quite harmful. However, the Department may instead demand certain guarantees from the user as a condition to granting a consumptive use permit in order to remove the risk of environmental damage. See Model Water Code Sec. 1.07(8).

(7) The department may also designate certain uses in connection with a particular source supply which, because of the nature of the activity or the amount of water required, would result in an enhancement or improvement of the water resources of the area. Such uses shall be preferred over other uses in any action pursuant to section 2-5.

Commentary. Subsection (7) allows the Department to designate in the plan certain uses which are to be given a preference in the granting of consumptive use permits. Such uses might include recreation, preservation of the environment, protection of recharge areas, and other. Some western states employ preferences in their prior appropriation laws to promote particular water policies, but, in general, preferences are seldom used to further environmental objectives. See Model Water Code Sec. 1.07(a).

1-10 Actions for penalties and injunctions; how brought

(1) It shall be the duty of the attorney general, upon the request of the secretary, to bring an action for the recovery of the penalties herein provided for and to bring an action for a restraining order, temporary or permanent injunction, for the prevention or correction of a condition constituting or threatening to constitute a violation of this chapter, except as provided for in section 4-6.

(2) All actions for penalties and injunctive relief for violations of this chapter shall be brought in the name of the Commonwealth of Kentucky by the attorney general in the circuit court of the county in which the applicant resides, or in the circuit court having jurisdiction of the defendant.

Commentary. *No regulatory program can operate effectively without a viable enforcement procedure. This section authorizes the Department through the Attorney General to seek injunctive relief against violators or to sue for civil penalties as provided for in section 1-11. In addition to these sanctions the Department in an administrative proceeding may suspend or revoke the permit of a violator. See KRS Sec. 151.460.*

1-11 Penalties

Any person, city, county or other governmental subdivision who violates any provision of this chapter shall be liable to a civil penalty of not more than \$1,000 for said violation and in addition may be enjoined from continuing said violation. Each day upon which such violation occurs or continues shall constitute a separate offense.

Commentary. *This section retains the provision for civil penalties presently found in KRS Sec. 151.990. These penalties are necessary particularly where violations endanger human life or property as may be the case with violations of Part 3.*

Part 2

Water Withdrawal Permits

2-1 Public water of Commonwealth, what constitutes

(1) Water occurring in any stream, lake, ground water, subterranean water or other body of water in the Commonwealth which may be applied to any useful and beneficial purpose is hereby declared to be a natural resource and public water of the Commonwealth and subject to control or regulation for the public welfare as provided in KRS Chapters 146, 149, 151, 262 and 350.029 and 433.750 to 433.757.

(2) Diffused surface water which flows vagrantly over the surface of the ground shall not be regarded as public water, and the owner of land on which such water falls or flows shall have the right to its use. Water left standing in natural pools in a natural stream when the natural flow of the stream has ceased, shall not be regarded as public water and the owners of land contiguous to that water shall have the rights to its use.

Commentary. *The proposed act regulates only "public water." However, the definition of public water is very broad and includes most forms of contained surface water as well as underground streams and percolating ground water. It should be noted that lakes and streams are subject to regulation regardless of navigability. Diffused surface water is the only significant category of water that is excluded from the definition of public water. There were no consumptive use rules associated with diffused surface water at common law. For this reason, and because of the practical problems of regulating this form of surface water, we decided not to include within the concept of public water. See KRS Sec. 151.120.*

2-2 Withdrawal of water from public waters, permit required; exceptions

(1) No person, business, industry, city, county, water district, or other political subdivision shall have the right to withdraw, divert, or transfer public water from a stream,

lake, ground water source or other body of water, unless such person, business, industry, city, county, water district or other political subdivision has been granted a permit by the department for such withdrawal, diversion, or transfer of water. Provided, however, no permit shall be required for the use of water for domestic purposes by the department. In addition, the department may, by regulation, exempt other water users from the requirement of obtaining a permit. Such exemptions may be based upon the type of water use, or the quantity of water withdrawn, diverted or transferred, or upon such other reasonable basis as the department deems appropriate.

Commentary. This section sets forth the basic features of the permit system by which the withdrawal of public water is regulated under this act. Subsection (1) provides that no one may withdraw, divert or transfer public water without obtaining a permit from the Department. Domestic uses, as defined in section 1-3(10), are exempted from this requirement but are otherwise subject to regulation. Domestic water users are usually exempted from regulation in other states because it is often impractical to regulate them and because collectively they account for a relatively small amount of the total water demand. Moreover, regulation of waterworks companies can effectively control overall domestic consumption in urban areas.

Although this section eliminates most of the statutory exemptions that are currently found in KRS Sec. 151.140 it gives the Department the authority to grant administrative exemptions on a categorical basis from the permit requirements. This is in keeping with our philosophy of avoiding unnecessary regulation. Thus, water users who individually or collectively account for only a small proportion of water use may be exempted. The agency may also choose to exempt certain geographical areas from the permit requirements if it determines that water supplies are ample for the region. Since the exemptions are granted by the Department, that agency would be free to modify them as conditions changed. Moreover, unlike the present statute, the ex-

emptions under our proposal apply only to the permit requirements; exempted users would still be subject to regulation during a temporary period of water shortage as provided in section 2-9. Cf. KRS Sec. 151.140.

(2) The common law of the state to the contrary notwithstanding, the department may allow the holder of a use permit to transport and use surface or ground water beyond overlying land or outside of the watershed from which it is taken if it determines that such transport and use will not be detrimental to the public welfare.

Commentary. Subsection (2) allows the Department to issue permits that authorize the transport of surface water beyond its watershed or the transport of ground water beyond overlying land. The transfer of water beyond the watershed or beyond overlying land will make it accessible to more users and will enable it to be utilized more efficiently. The proposed statute abrogates the common-law place of use restrictions discussed in Chapter II. KRS Sec. 151.200(2) presently permits such transfers but requires the consent of the Water Resources Authority. This requirement has been eliminated in our proposal. Cf. Model Water Code Sec. 2.02(2).

(3) The department by regulation may reserve from use by permit applicants water in such locations and quantities and for such seasons of the year as in its judgment may be required by the provisions of section 1-9. Such reservations shall be subject to a periodic review and revision in the light of changed conditions; provided, however, that all presently existing legal uses of water shall be protected.

Commentary. Subsection (3) authorizes the Department to reserve water from appropriation where necessary to implement state water resources planning provisions. This would include reservations to protect minimum stream flows as well as reservations to preserve certain watercourses for recreation or to

protect fish or wildlife habitats. See Model Water Code Sec. 2.02(2).

(4) Any person, business, industry, city, county, water district or other political subdivision withdrawing, transferring or diverting public water from a stream, lake, ground water source, or other body of public water within or along the borders of the Commonwealth without a permit as required in section 2-2 shall be subject to the penalties provided in section 1-11.

Commentary. Subsection (4) complements subsection (1) by declaring that any person who withdraws, diverts or transfers public water without obtaining the required permit will be subject to the penalties provided in section 1-11.

2-3 Application for permit

(1) Any person, business, industry, city, county, water district or other political subdivision desiring to withdraw, divert, or transfer public water must register with the department and submit an application for a permit on a form to be supplied by the department.

(2) The department shall issue a permit to the applicant if the proposed use is a beneficial one, if it will not interfere with any existing legal consumptive use of water, and if it is not contrary to the provisions of section 1-9.

(3) All permits issued under this section shall be specific in terms of quantity, time, place and rate of diversion, transfer or withdrawal of public water. A permit may be issued for an amount of water withdrawal less than that applied for.

Commentary. For the most part, our proposal retains the permit application procedure currently utilized by Kentucky. For example, subsection (1) is taken from KRS Sec. 151.150(1), while subsection (3) is similar to KRS Sec. 151.170(1). As in other eastern states, water withdrawal permits in Kentucky must be specific with respect to quantity, time and rate of withdrawal. Subsection (2) sets forth the criteria for a permit: the proposed use must be a beneficial one as defined in section 1-3(4), it must not interfere with an existing legal consumptive use, and it must be consistent

with the reservation and minimum stream flow provisions of section 1-9.

Cf. KRS Sec. 151.170(2).

(4) All water withdrawal permits issued by the department prior to the passage of this chapter shall remain in force for a period of two years during which existing permit holders may apply for a permit issued under the provisions of this chapter.

Commentary. Subsection (4) is new and is concerned with the transition from the present permit system to the new proposed one. Those presently holding water withdrawal permits will be given two years to apply for new ones in accordance with the provisions of the proposed act. Since permits under the present statutory regime have no specific duration period, the two-year deadline should not create any legal problems. Moreover, most existing permit holders will qualify for new permits under the proposed act anyway. Those water users who are exempt under the present water regulatory statute, however, would have to apply for permits as soon as the proposed act became effective.

2-4 Duration of Permits

(1) Permits may be granted for any period of time not exceeding thirty (30) years. The department may base duration of permits on a reasonable system of classification according to source of supply, type of use, or both.

Commentary. Subsection (1) provides that water withdrawal permits may be granted for a period of up to thirty years. Permits under the present statute are of indefinite duration, with no specific time period mentioned in the legislation. In addition, KRS Sec. 151.170(1) now declares that "such permits represent a limited right of use and do not vest ownership nor an absolute right to withdraw or use the water." This suggests that the Department may be able to revoke a permit without cause. The thirty-year term in the proposed act provides security for the water user without giving up

flexibility. Cf. Model Water Code Sec. 2.06(1).

(2) The department may authorize a permit of duration of up to fifty (50) years in the case of a governmental body or public utility.

Commentary. Subsection (2) allows the Department to issue consumptive use permits of up to fifty years for public agencies and public utilities where more than thirty years is required for the retirement of bonds issued to finance construction of such projects as waterworks and waste-treatment facilities. See Model Water Code Sec. 2.06(2).

2-5 Competing Applications

(1) If two or more applications which are pending for a quantity of water which is inadequate for both or all, or which for any other reason are in conflict, the department shall have the right to approve that application which best serves the public interest.

(2) In the event that two or more competing applications qualify equally under the provisions of subsection (1) above, the department shall give preference to a renewal application over an initial application.

Commentary. The present Kentucky statute, like those of most states, does not specifically deal with this problem. There are two types of situations where competing applications may be involved. The first is when two persons apply at the same time for a permit to withdraw water from a particular watercourse and there is not enough water to satisfy the needs of both applicants. The second case is when a renewal applicant and a new applicant both apply for a permit and the watercourse is inadequate to meet both requests.

The problem arises because the beneficial use standard is absolute rather than comparative. If both prospective uses are beneficial, the regulatory agency must use some other means to determine which applicant will get the water. Of course, the agency may utilize the provisions of section 2-3(3) and give each applicant less water than he requested. However, when this

approach cannot be utilized, this section of the proposed statute directs the Department to approve the application which best serves the public interest. The Department may have to adopt some guidelines to clarify this standard. Presumably, public uses should be preferred over private uses. Among private uses the more economically efficient use should be preferred over the less efficient use in most circumstances. For example, an activity which produces \$100 per unit of water should be preferred over one which produces only \$20 per unit.

The situation is a bit more complicated when the conflict is between a new applicant and a renewal applicant. This, of course, will occur in the future when the original thirty-year permits begin to expire. In these circumstances the Department should favor the renewal applicant over the new applicant when the permit applications are of otherwise equal merit.

It should be noted that this provision is a stopgap measure. Eventually, the Legislature will have to develop a better solution to the reallocation problem. One of the alternatives discussed in Chapter VI may provide the answer. Cf. Model Water Code Sec. 2.05.

2-6 Record and report of water withdrawn under permit; effect of noncompliance

(1) All public water withdrawn, diverted or transferred pursuant to a permit under section 2-2 must be recorded and a report thereof submitted to the department in a manner prescribed by the department.

(2) The willful failure to keep accurate records of the withdrawal, diversion or transfer of public water or the failure to submit reports as prescribed by the department shall subject the permit holder to the provisions of 1-11 and possible revocation of the permit.

Commentary. One of the advantages of permit systems over commonlaw riparian rights is the ability of the state water regulatory agency to require permit holders to keep accurate records of their water use. The data obtained from

these records can be a valuable aid to intelligent water resources planning. Accordingly, we have retained the mandatory recordkeeping requirements of section 151.160 of the present Kentucky statute.

2-7 Modification or Renewal of Permit Terms

(1) Permits for the withdrawal, transfer, or diversion of public water may be amended at any time upon application to the department by the withdrawer, or by the department when the reports indicate that the withdrawer is using substantially less than the amount permitted.

Commentary. Section 151.170(4) of the present Kentucky statute allows the Department to modify the terms of a water withdrawal permit. This may be done at the instance of either the Department or the permit holder. This provision has been retained in subsection (1). Modification can mean an increase or decrease in the quantity of water utilized as well as a change in the nature or location of the water use. Of course, the Department may not allow the permit holder to increase or otherwise alter his water use if this would adversely affect other users or affect instream uses.

(2) Permit renewal applications shall be treated in the manner as initial permit applications.

Commentary. Subsection (2), which deals with renewal of permits, is new. Under the present regulatory statute consumptive use permits are not issued for a specific term and are therefore not renewable. Instead they are valid until surrendered by the permit holder or terminated by the Department. Under the proposed act, the Department may grant a permit of up to thirty years' duration. As this subsection indicates, the permit may be renewed upon expiration of the original term and renewed thereafter as often as necessary. A renewal application will normally be granted, but the provisions of section 2-5 will control if another applicant seeks to appropriate water formerly

allocated to a renewal applicant.

(3) The Department may authorize a permit holder, prior to the expiration of his permit, to transfer the unexpired portion of his water right to another water user. The Department may also authorize a permit holder to make a short-term transfer or lease of his water right. No transfer shall be approved by the department if it would cause injury to another water user or interfere with the planning objectives of section 1-9.

Commentary. *Ordinarily, a water right under the permit system runs with the land. If the land is sold the new owner would automatically succeed to the previous owner's interest and would not have to obtain a new permit. A change in use by the new owner, however, might require him to seek a modification of the terms of his permit in accordance with the provisions of subsection (1).*

On the other hand, subsection (3) authorizes the Department to allow a permit holder to sever his water right from the land and transfer or convey it to another. Short-term leases of water rights are also permitted. However, the Department may allow water rights transfers only when the rights of the public and other water users will not be adversely affected. At the present time KRS chapter 151 does not expressly provide for the transfer of water rights.

It is doubtful that subsection (3) will be utilized very much in the immediate future. As long as water is still available, a new water user would normally prefer to apply for a permit himself from the Department instead of purchasing an existing water right from another permit holder. However, if water supplies become inadequate, such transfers provide a mechanism for the movement of water from less productive to more productive uses. The water leasing provisions of subsection (3) might also be useful during short-term water shortages.

2-8 Revocation of Permits

After a hearing the department may revoke permits as follows:

(1) For any material false statement in an application to continue, to initiate, or to modify a use, or for any material false statement in any report or statement of fact required of the user pursuant to the provisions of this chapter, the department may revoke the user's permit, in whole or in part, permanently.

(2) For willful violation of the conditions of the permit, the department may permanently or temporarily revoke the permit, in whole or in part.

(3) For violation of any provision of this chapter, the department may revoke the permit, in whole or in part, until the permittee complies with the provision in question.

(4) For nonuse of the water supply allowed by the permit for a period of two (2) years or more, the department may revoke the permit permanently and in whole unless the user can prove and his nonuse was due to extreme hardship caused by factors beyond his control.

(5) The department may revoke a permit, permanently and in whole, with the written consent of the permittee.

Commentary. *Section 151.125(9) of the present Kentucky statute authorizes the Department to suspend or revoke a water withdrawal permit for serious violations by the permit holder. This power is retained in the proposed act. See Sec. 1-4(9). In addition, subsection (4) empowers the Department to revoke a permit when the permit holder fails to make a beneficial use of the water. Loss of right because of non-use is a prominent feature of the prior appropriation system of the West and is also embodied in the permit systems of some eastern states. See Model Water Code Sec. 2.08.*

2-9 Declaration of Water Shortage

(1) The department by regulation, shall formulate a plan for implementation during periods of water shortage. As a part of this plan the Department shall adopt a reasonable system of classification according to source of water supply, method of extraction or diversion, use of water, or a combination thereof.

(2) The department, by regulation, may declare that a water shortage exists within an area when insufficient water is available to meet the requirements of existing water users or, when conditions are such as to require temporary reduction in total water use within the area to protect water resources from serious harm.

(3) In accordance with the plan adopted under subsection (1) above, the department may impose such restrictions on one or more classes of water users as may be necessary to protect the water resources of the area from serious harm and to restore them to their previous condition.

(4) A declaration of water shortage and any measures adopted pursuant thereto may be rescinded by regulation by the department.

(5) When a water shortage is declared, the department shall cause notice thereof to be published in a prominent place within a newspaper of general circulation throughout the area. Such notice shall be published each day for the first week of the shortage and once a week thereafter until the declaration is rescinded. Publication of such notice shall serve as notice to all water users in the area of the condition of water shortage.

(6) The department shall notify each permittee in the district by regular mail of any change in the condition of his permit, any suspension of his permit, or of any other restriction on his use of water for the duration of the water shortage.

Commentary. *Temporary water shortages occur from time to time even in humid areas. This section is intended to deal with these situations. It differs from KRS Sec. 151.200(1) in the present Kentucky statute in that it requires the Department to develop in advance a plan to deal with water shortages. This plan should include an allocation formula so that permit holders know where they stand when water supplies are inadequate. When necessary, exempted users may also be regulated under this provision. Cf. Model Water Code Sec. 2.09.*

Part 3

Dams, Impoundments and Flood Control

3-1 Plans for dams, levees, etc. to be approved and permit issued by department

(1) Notwithstanding any other provision of law, no person and no city, county, or other political subdivision of the state, including levee districts, drainage districts, flood control districts or systems, or similar bodies, shall commence the construction, reconstruction, relocation or improvement of any dam, embankment, levee, dike, bridge, fill or other obstruction (except those constructed by the bureau of highways) across or along any stream, or in the floodway of any stream, unless the plans and specifications for such work have been submitted by the person or political subdivision responsible for the construction, reconstruction or improvement and such plans and specifications have been approved in writing by the department and a permit issued. However, the department by regulation, may exempt those dams, embankments or other obstructions which are not of such size or type as to require approval by the department in the interest of safety or retention of water supply, or where hydrologic or topographic conditions are such that no approval by the department is considered necessary to protect the public safety or welfare.

(2) No person, city, county or other political subdivision of the state shall commence the filling of any area with earth, debris, or any other material, or raise the level of any area in any manner, or place a building, barrier or obstruction of any sort on any area located adjacent to a river or stream or in the floodway of the stream so that such filling, raising or obstruction will in any way affect the flow of water in the channel or in the floodway of the stream unless plans and specifications for such work have been submitted to and approved by the department and a permit issued as required in subsection (1) above.

(3) Nothing in this section is intended to give the department any jurisdiction or control over the construction, reconstruction, improvement, enlargement, maintenance or operation of any drainage district, ditch, or system established for agricultural purpose, or to require approval of the same except where such obstruction of the stream or floodway is determined by the department to be a detriment or hindrance to the beneficial use of water resources in the area, and the person or political subdivision in control thereof so notified.

3-2 Applications for permit; time for approval or rejection

(1) All applications for permits required by Section 3-1 shall be in the form and manner prescribed by the department.

(2) Unless waived by the department, all plans and specifications submitted for approval shall be drawn by an engineer, licensed to practice as a professional engineer under the provisions of KRS Chapter 322.

(3) Upon receipt of all plans and specifications, the department shall notify the applicant in writing within twenty (20) working days either that the permit will be issued or denied, or that certain modifications in the plans or specifications must be made before a permit will be issued.

3-3 Commencement of preparations for project without permit prohibited; deviation from approved plans

(1) Any person, county, city or other political subdivision of the state who shall begin on the site preparation for the construction, reconstruction, relocation or improvement of any project prior to the issuance of the permit required in section 3-1 shall be considered as commencing without a permit and punishable by penalties provided in section 1-11.

(2) Whenever plans and specifications have been approved in writing and a permit issued by the department, no person, city, county, or other political sub-division shall deviate from the approved plans in the construction, reconstruction, relocation or improvement unless such change is submitted in writing to the department and prior approval is received from the department in writing before proceeding with the work. Any substantial deviation from the approved plans shall be construed as commencing without a permit and punishable by the penalties provided in section 1-11.

3-4 Regular inspections of dams and reservoirs

The public safety and welfare requiring it, the secretary shall conduct a program of regular inspections of dams and reservoirs within the state. The frequency of such inspections shall be as determined by the secretary, who may establish different inspection intervals.

3-5 Orders for remedy; emergency action by department; contracts or agreements for required work; hearings

(1) Whenever the department determines that life or property are or may be endangered by the failure or incapacity of any dam, reservoir, levee, embankment, or other water barrier, or by other cause related to a dam or reservoir,

levee, embankment, or other water barrier the department shall order the owner thereof to take such action as is necessary to render the dam, reservoir, levee, embankment, or other water barrier safe.

(2) When the department determines that the dam, reservoir, levee, embankment, or other water barrier has been abandoned; or where the owner fails, in the judgment of the department, to take satisfactory action toward compliance with an order issued pursuant to this section; or where an owner fails to maintain a satisfactory rate of progress toward full compliance therewith; or where in the judgment of the department, the danger to life or property will not permit delay, the department shall declare that an emergency exists and shall take such action as it deems necessary to render the dam, reservoir, levee, embankment, or other water barrier safe, which action may include, but is not limited to:

(a) Taking full charge and control of the dam, reservoir, levee, embankment, or other water barriers;

(b) Lowering the water level or emptying the reservoir;

(c) Performing any necessary remedial or protective work at the site;

(d) Taking such other steps as may be necessary to safeguard life and property; or

(e) Removing the dam, reservoir, levees, embankment, or other water barrier.

(3) The department may continue such action until the dam, reservoir, levee, embankment, or other water barrier involved is rendered safe or the emergency requiring the action has ceased. The secretary is authorized to enter into contracts or agreements with other state, local, or federal agencies, or other persons, for work necessary to implement such necessary actions.

(4) Any person to whom an order is directed pursuant to this section shall comply therewith immediately, but, on petition to the department, may within five (5) working days have a hearing thereon.

3-6 Liability for costs of departmental emergency work; action for recovery of costs; foreclosure sale to satisfy judgment

Whenever the secretary takes action authorized by section 3-5, the owner or owners of the dam or the dams creating the impoundment, or levee, embankment, or other water barriers at which such action was taken shall be jointly and severally liable for the costs of taking such action, including applicable overheads, and a lien in the amount of such costs shall be automatically created on all

property owned by any such owner at or proximate to such dam or reservoir. The secretary shall file an action in the circuit court having jurisdiction over any owner or the owner's property for the recovery of such costs, and may join all other owners in such action irrespective of any statutes to the contrary relating to jurisdiction or venue. Following the conclusion of such action the secretary may make application to the court for foreclosure sale of the property to satisfy any judgment obtained by the secretary.

3-7 Deposits in water without permit prohibited

No person, city, county, or other political subdivision of the state shall deposit or cause to be deposited any matter that will in any way restrict or disturb the flow of water in the channel or in the floodway of any stream except where a permit has been issued for construction under section 3-1, or to encroach on the reservoir area of any dam authorized by the congress of the United States, or under the jurisdiction of the Commonwealth, or any of its political subdivisions.

3-8 Officers required to enforce law

(1) The mayor or chief executive officer of each city and the county judge of each county, shall have the concurrent duty of enforcing with the department, within their respective cities and counties, the provisions of sections 3-1, 3-3 and 3-7 and rules and regulations issued thereunder.

3-9 State-owned facilities

The department shall have primary responsibility for the safety to the public of all dams, reservoirs, levees, embankments, or other water barriers owned by the Commonwealth, its agencies, arms and subdivisions. The department may take whatever action that it deems necessary to maintain, repair or remove dams, reservoirs, levees, embankments, or other water barrier owned, acquired or constructed by the Commonwealth, its agencies, arms and subdivisions.

3-10 Community flood damage abatement program

(1) There is hereby created a community flood damage abatement program within the department for natural resources and environmental protection.

(2) It is hereby declared to be the purpose of the program to provide funds and technical assistance to local governments to initiate flood control projects and programs.

(3) This program shall be administered by the secretary according to standards designed to promote adequate planning, construction and conservation measures to deal with water drainage problems.

(4) Any local sponsoring community desiring to qualify for funding, must:

(a) make application to the department which shall be in the form and manner prescribed by the department;

(b) provide at no expense to the department, all lands and easements necessary for project construction;

(c) agree to operate and maintain the project in a manner acceptable to the Commonwealth to insure the continued capacity of the project to prevent or minimize flood damages;

(d) submit evidence of the history of flooding within the last five (5) years;

(e) submit evidence of flood damage in dollars within the last five (5) years.

(5) The department shall have and exercise the power and authority to annually inspect the completed project to insure compliance with any of the provisions of this section or with any rules, regulations or orders adopted pursuant thereto, or with any of the conditions contained in subsection (4)(c) of this section.

Commentary. *Although the order of some provisions have been rearranged, we have made very few substantive changes in parts 3 and 4 from the present Kentucky statute. Therefore, we will not provide a section-by-section commentary for these parts as we did in parts 1 and 2 above. However, the substantive changes in parts 3 and 4 will be examined below.*

Section 3-1(1) allows the Department to exempt dams, embankments or other obstructions from the requirement of obtaining a construction permit when hydrologic, topographic or other conditions within the area in which the dam is located are such that no public or private interests will be adversely affected in the event that the structure fails.

Another substantive change is the omission of Section 151.293 from our proposal. This provision dealt with certificates of inspection. It was felt that the issuance of such certificates might subject the Department to

liability if there was a dam failure. It should be noted, however, that section 3-4 (or KRS Sec. 151.295) still gives the Department the authority to make periodic inspections of dams and other facilities.

Sections 3-9 and 3-10 contain statutes that were passed in 1978 while this work was in progress. Section 3-9, which gives the Department regulatory authority over state owned dams, is taken from Kentucky Laws, Chapter 206, Sec. 3 (1978). Section 3-10, which establishes a community flood control damage abatement program within the Department, is taken from Kentucky Laws, Chapter 293, Sec. 1 (1978).

Part 4

The Water Resources Authority

4-1 Water resources authority; membership; quorum; officers

(1) The governor, the secretary for natural resources and environmental protection, the secretary for finance and administration, the secretary for human resources or his designee, the commissioner of commerce, the commissioner of agriculture, the secretary of the cabinet for development, the secretary of the department of transportation, the commissioner of fish and wildlife resources, and the commissioner of parks, and their respective successors in office, shall be a body corporate and politic, constituting a public corporation and a governmental agency and instrumentality of the Commonwealth by the name of "The Water Resources Authority of Kentucky" with perpetual succession and with power in that name to contract and be contracted with, sue and be sued, have and use a corporate seal, and exercise, in addition to the powers and functions specifically stated in this chapter, all the usual powers of private corporations to the extent that the same are not inconsistent with specifically enumerated powers.

(2) The members of the authority shall receive no compensation for their service in that capacity, but shall be entitled to reimbursement for all reasonable expenses necessarily incurred in connection with the performance of their duties and functions as such members.

(3) Six (6) members of the authority shall constitute a quorum for the transaction of business. The governor shall, by virtue of his office, be the chairman of the authority. The secretary for natural resources and environmental protection shall, by virtue of his office, be the vice-chairman of the authority. The secretary for finance and administration shall, by virtue of his office, be the treasurer of the authority.

4-2 Executive director, designation, duties

Administrative details and other activities of the authority shall be administered by the executive director of the authority and he shall maintain correct, complete records of all the authority's transactions and proceedings which shall constitute public records open to inspection at reasonable times. The executive director of

the authority shall be a person experienced in the field of water management or water conservation and shall serve at the pleasure of the authority.

4-3 Attorney general as legal officer

The attorney general shall be the legal office of the authority, but shall designate one or more qualified assistant attorneys general to serve as advisors to the authority and its executive director as occasions may arise.

4-4 Contracts with federal government for water resource projects; participation in projects; coordination of programs

In order to provide for the development of Kentucky's water resources to meet future demands for usable water, and to provide for the construction of water resource projects including but not limited to the construction of dams with surplus water storage capacity, reservoirs for municipal and industrial water supply, and other projects to assure the adequate supply of water which is essential to the continued municipal, industrial, recreational and agricultural growth of the Commonwealth, the authority is hereby authorized and empowered, to contract with the federal government for the inclusion of additional water supply storage space behind existing or proposed flood control or other projects; to construct, maintain, repair and operate water resources projects; to participate with the federal government or any of its agencies, the state government or any of its agencies or political subdivisions, or any other person in the construction, maintenance, repair or operation of any water resource project; to lease water resource projects to the department or other governmental agencies and political subdivisions of the Commonwealth; and to provide financial assistance through loans or otherwise for the development of water resource projects.

4-5 Powers of authority; land acquisition

The authority is further authorized and empowered:

- (1) To construct, reconstruct, maintain, repair, operate and regulate water resource projects at such locations within the Commonwealth as may be determined by the authority;
- (2) To acquire by purchase, exercise of the rights of eminent domain, grant, gift, devise or otherwise, the fee simple title to or any acceptable lesser interest in any lands, and by lease or other conveyance, contract for the right to use and occupy any lands selected in the discretion of the authority as constituting necessary, desirable or acceptable sites for water resources projects of the authority;

(3) To issue revenue bonds of the authority payable solely from the revenues, rentals, rates, charges and other funds, pledged for their payment, for the purpose of paying all or any part of the cost of any one or more projects, and to refund any of its bonds;

(4) To fix by contract, or to establish and revise from time to time and charge and collect revenues, rentals, rates and charges for the use of the services and facilities of projects;

(5) To combine for financing purposes any two (2) or more projects;

(6) To establish and enforce rules and regulations for the use of any project;

(7) Without reference to KRS Chapter 56, to acquire and hold in the name of the authority real and personal property in the exercise of its powers and the performance of its functions and duties under this chapter, and to dispose of the same;

(8) To make and enter into such agreements with the federal government, the Commonwealth or any of its agencies or political subdivisions and any other parties as may be necessary or incidental to the performance of its duties and the execution of its powers under this chapter;

(9) To employ such employees and agents as may be necessary in the judgement of the authority and to fix their compensation subject to KRS Chapter 18;

(10) To receive and accept from the Commonwealth and any federal agency, grants for or in the aid of construction or development of any water resources project, and to receive and accept aid or contributions from any source of either money, property, labor or any other things of value, to be held, used and applied only for the purposes for which such grants and contributions may be made;

(11) To expend reasonable funds of the authority in the form of grants for research, scientific study or planning of the development of water resources throughout the Commonwealth;

(12) To adopt any rules or regulations necessary to accomplish the purposes of the authority;

(13) To do all acts and things necessary or convenient to carry out the powers expressly granted to the authority.

4-6 Water resources fund, creation, uses

(1) There shall be a special revolving trust and agency fund in the treasury of the Commonwealth to be known as the "water resources fund" to which shall be accredited all funds paid to the authority by all sources including but not limited to all fees, deposits, and repayments, both principal and interest as provided in this chapter.

(2) All loans and expenditures for the development and construction of water resources projects shall be paid out of this fund. Payments shall be made in the same manner as other state expenditures.

(3) No expenditures shall be made from any funds received under any of the provisions of KRS Chapters 146, 149, 151, 262, and 350.029 and 433.750 to 433.757 to finance any part of the cost of facilities for the generation, transmission or distribution of electric energy or for the transmission or distribution of natural gas.

4-7 Loans to governmental agencies for water resources project

When it has been determined by the authority that the development and construction of a water resources project will accomplish the public purposes of this chapter, the authority may contract to loan any county, city, water district, watershed conservancy district or other governmental subdivision of the Commonwealth, such amount of money as in the discretion of the authority is needed in the development and completion of the water resources project.

4-8 Loans, interest rate; security

Every loan of the authority shall be for such period of time and shall bear interest at such rate as shall be determined by the authority. The authority shall require a loan under this section to be secured; if so, the security may be subordinate to that which secures federal assistance or other secured assistance received on the same project.

4-9 Application for assistance on water resources projects

(1) Any governmental subdivision of the Commonwealth may apply to the authority for assistance in the development, construction and operation of a water resources project. Applications shall be made in a manner prescribed by regulations of the authority.

(2) The authority shall hold such hearings and examinations as to each application as shall be necessary to determine whether the public purposes of this chapter will be accomplished by granting financial assistance to such applicants.

4-10 Revenue bonds for water resources projects; issuance; contents; form; effect; use of proceeds; temporary bonds; tax exemption

(1) The authority is hereby authorized to provide, at one (1) time or from time to time, for the issuance of its revenue bonds for the purpose of paying all or any part of the cost of any one or more projects undertaken pursuant

to this chapter. The principal of and the interest on such bonds shall in each instance be payable solely from a special fund provided for such payment, and from identified revenues pledged to be set aside and deposited in such special fund. The bonds of any issue may be in one or more series and any one or more such series may enjoy equal or subordinate status with respect to the pledge of funds from which they are payable, shall be dated, shall bear interest at such rate or rates not exceeding six per cent (6%) per annum shall mature at such time or times not exceeding the fortieth anniversary of their respective dates, all as may be provided by the authority, and may be made redeemable before maturity, at the option of the authority, at such price or prices and under such terms and conditions as may be fixed by the authority prior to the issuance of the bonds. The authority shall determine the form of bonds, including any interest coupons to be attached thereto, and shall fix the denomination or denominations of the bonds and the place or places for payment of principal and interest, which may be at any bank or trust company within or without the Commonwealth. The bonds shall be signed by the facsimile signature of the chairman of the authority, and the seal of the authority or a facsimile thereof shall be affixed thereto and attested by the manual signature of the treasurer of the authority, and any coupons attached thereto shall bear the facsimile signature of the chairman of the authority. In case any officer whose signature or a facsimile of whose signature shall appear on any bonds or coupons shall cease to be such officer before the delivery of such bonds, such signature or such facsimile shall nevertheless be valid and sufficient for all purposes the same as if he had remained in office until such delivery. All bonds issued under the provisions of this chapter shall have and are hereby declared to have all qualities and incidents of negotiable instruments under the Uniform Commercial Code of the Commonwealth. The bonds may be issued in coupon or in registered form, or both, as the authority may determine, and provision may be made for the registration of any coupon bonds as to principal alone and also as to both principal and interest, and for the reconversion into coupon bonds of any bonds registered as to both principal and interest. The authority may sell such bonds at public sale, and for such price as it may determine will best effect the purposes of this chapter, but no such sale shall be made at a price so low as to require the payment of interest on the money received therefore at more than six per cent (6%) per annum computed with relation to the absolute

maturity of the bonds in accordance with standard tables of bond values, excluding, however, from such computations the amount of any premium to be paid on redemption of any bonds prior to maturity.

(2) The proceeds of the bonds of each issue shall be used solely for the payment of the cost of the project or projects for which such bonds shall have been issued, and shall be disbursed in such a manner and under such restrictions, if any, as the authority may provide in the proceedings authorizing the issuance of such bonds or in the trust indenture securing the same. If the proceeds of the bonds of any issue, by error of estimates or otherwise, shall be less than such cost, additional bonds may in like manner be issued to provide the amount of such deficit, and, unless otherwise provided in the proceedings authorizing the issuance of such bonds or in the trust indenture securing the same, shall be deemed to be of the same issue and shall be entitled to payment from the same fund without preference or priority of the bonds first issued. If the proceeds of the bonds of any issue shall exceed such cost, the surplus shall be deposited to the credit of the sinking fund or funds for such bonds or any account or accounts therein as the authority shall have provided in the proceedings or trust indenture authorizing and securing such bonds.

(3) Prior to the preparation of definitive bonds, the authority may, under like restrictions, issue interim receipts or temporary bonds, with or without coupons, exchangeable for definitive bonds when such bonds shall have been executed and are available for delivery. The authority may also provide for the replacement of any bonds which shall become mutilated or shall be destroyed or lost.

(4) Such bonds are held to be interest exempt from federal and Kentucky income taxes and principal exempt from Kentucky ad valorem taxes under existing statutes, regulations and court decisions.

4-11 Payment of revenue bonds, source

Revenue bonds issued by the authority under the provisions of this chapter shall not be deemed to constitute a debt of the Commonwealth or of any political subdivision thereof, or a pledge of the faith and credit of the Commonwealth or of any such political subdivision, but such bonds shall be payable solely from the funds provided therefore under the provisions of this chapter. All such revenue bonds shall contain on the face thereof a statement to the effect that neither the Commonwealth nor the authority shall be obligated to pay the same or the interest thereon except from revenues of the project for which they are issued, and that neither the faith and credit nor the taxing power of

the Commonwealth or of any political subdivision thereof is pledged to the payment of the principal of or the interest on such bonds.

4-12 Revenue bonds, how secured; trust indenture, contents

In the discretion of the authority, any bonds issued under the provisions of this chapter may be secured by a trust indenture by and between the authority and a corporate trustee, which may be any trust company or bank having the powers of a trust company within or without the Commonwealth. Such trust indenture or the proceedings providing for the issuance of such bonds may pledge or assign the revenues, rentals, rates, and charges to be received, but shall not convey or mortgage any project or any part thereof. Such trust indenture or proceedings may contain such provisions for protecting and enforcing the rights and remedies of the bondholders as may be reasonable and proper and not in violation of law, including covenants setting forth the duties of the authority in relation to the acquisition of property and the construction, improvement, maintenance, repair, operation and insurance of the project or projects in connection with which such bonds, shall have been authorized, the rentals, rates, charges, and other revenues to be established and collected, and the custody, safeguarding and application of all moneys. It shall be lawful for any bank or trust company incorporated under the laws of the Commonwealth which may act as depository of the proceeds of bonds or of revenues to furnish such indemnifying bonds or to pledge such securities as may be required by the authority. Any such trust indenture may set forth the rights and remedies of the bondholders and of the trustee, and may restrict the individual right of action by bondholders. In addition to the foregoing, any such trust indenture or proceedings may contain such other provisions as the authority may deem reasonable and proper for the security of the bondholders. All expenses incurred in carrying out the provisions of such trust indenture or proceedings may be treated as a part of the cost of the operation of the project or projects.

4-13 Rights of holder of bonds or trustee

Any holder of bonds issued under the provisions of this chapter or any of the coupons appertaining thereto, and the trustee under any trust indenture, except to the extent of the rights given in this section may be restricted by such trust indenture or proceedings, may, either at law or in equity, by suit, action, mandamus or other proceedings, protect and enforce any and all rights under the laws of the Commonwealth or granted under this chapter or under such trust

indenture or the proceedings authorizing the issuance of such bonds, and may enforce and compel the performance of all duties required by this chapter or by such trust indenture or proceedings to be performed by the authority or by any officer or employee thereof, including the fixing and collecting of rentals, rates, charges and other revenues.

Commentary. *There is only one substantive change in part 4 and that is in section 4-2. This provision modifies KRS Sec. 151.340 to allow the Water Resources Authority to appoint any qualified person as executive director. At the present time, the head of the Division of Water Resources holds that position ex officio.*

Appendix

Wells

5-1 Registration of Existing Wells

(1) Any person owning or operating any well shall register said well with the department. Registration shall be on the forms provided by the department.

(2) The registration report shall include:

- (a) the water use permit number,
- (b) the legal description of the land upon which the well is located,
- (c) the location of the well,
- (d) the purpose of the well,
- (e) the diameter of the well,
- (f) the name of the well driller who constructed the well,
- (g) the maximum capacity of the well,
- (h) the name of the pump installation contractor who installed the pump and pumping equipment, and

(i) such other data as the department may require.

(3) The department shall maintain a permanent record in which shall be entered the information gathered from the persons owning or operating all wells reported.

(4) In addition to the penalties prescribed in section 1-11, a department may deny the issuance of a water use permit, as provided for in part two, until such time as the applicant registers all wells which he owns or operates.

Commentary. *Kentucky is a humid state with a relatively high rainfall. As a result of this abundant precipitation Kentucky utilizes surface water much more than ground water. This legislative proposal recognizes the fact that Kentucky's present ground water consumption patten does not require extensive regulation. This section, as well as the rest of Part 3 this Appendix is based on the Model Water Code. Some of the Code's regulatory provisions, such as registration of well drillers, have been omitted from this proposal. However, additional regulations can be added in the future if they become necessary.*

Although all existing wells are not required to obtain a water use permit, they are all required to be registered under this section. Whenever an attempt is made to regulate a resource, it is important that the amount of present use be known. This section will enable the Department to determine the amount and the point of withdrawal of all ground water within the state. This information will be kept current through the well completion report, as provided in section 5-5.

The information obtained through the inventory will serve as the basis for evaluating applications for water use permits and well construction permits. This represents one of the initial steps that the Department must take in order to obtain the basic information to develop an optimum coordinated program of ground water management. Cf. Model Water Code Sec. 3.03.

5-2 Permit for Well Construction

(1) Prior to the beginning of construction of all wells, permission must be obtained from the department by making written application for the construction on forms to be provided by the department. The application shall be made by the well driller who will perform the work and shall contain the following:

- (a) the name of the applicant,
 - (b) the name and address of the person who will control and operate the well,
 - (c) the number of the water use permit,
 - (d) the location of the well,
 - (e) the proposed depth and method of construction,
 - (f) the size and expected capacity of the well,
 - (g) the name of the pump installation contractor,
- and
- (h) such other information as the department may require.

(2) The department shall issue a permit whenever it finds that an application is in proper form and contains the required information, provided that, on the basis of the information therein contained, the proposed construction will not be contrary to applicable law, rules, orders, or regulations. Receipt of the permit by the well driller will constitute permission to begin well construction.

(3) The department shall issue a Notice of Rejection, as provided in section 5-4, whenever it finds that an application fails to meet the requirements of this code or any rule, order,

or regulation adopted pursuant hereto.

(4) The permit shall be prominently displayed at the site of the well prior to beginning any work thereon and shall remain so displayed until construction is completed.

(5) The holder of a permit under this section who desires to change the location of his well before construction is completed shall apply to the department for an amendment of his permit. The application shall contain the same information as required for an original application, plus information as to the manner of sealing or plugging the incomplete and abandoned well. If the department determines that the proposed well at the proposed new location will both serve the same use as the original well and draw upon the same supply of water and that the incomplete and abandoned well will be sealed or plugged so as to prevent waste of water and damage to the water supply so as not to be dangerous to public safety, it shall approve the application and issue an amended permit therefore.

Commentary. Section 2-2(1) exempts domestic users and users of small quantities of water from the requirement of obtaining a water consumption permit. Despite this exemption, these users - as with any water consumers - who construct wells must obtain a well construction permit. The requirement for a well construction permit extends to alterations and repairs of existing wells.

Provisions for the issuance of emergency permits and for time limitations on the application review process are intentionally left to the administrative regulations and orders process. These matters could be handled statutorily in Sec. 5-2, but the need for flexibility outweighs the need for certainty.

Section 5-2(5) allows a permit holder to alter his plans upon discovery of unexpected conditions. The permit amendment is to be expedited more rapidly than a complete new application. The department's concern in issuing amendments must encompass ensuring that work which the permittee has already begun will not endanger public safety or water supply. See Model Water

5-3 Permit for Installation of Pumps and Pumping Equipment

(1) Prior to the beginning of the installation of pumps and pumping equipment, permission must be obtained from the department by making written application for the construction on forms to be provided by the department. The application shall be made by the pump installation contractor who will perform the work and shall contain the following:

- (a) the name of the applicant,
- (b) the number of the water use permit,
- (c) the number of the well construction permit,
- (d) description of the pumps and pumping equipment to be installed, and
- (e) such other information as the department may require.

(2) The department shall issue a permit whenever it finds that an application is in proper form and contains required information, provided that on the basis of the information therein contained, the proposed installation will not be contrary to applicable law, rules, orders, or regulation. Receipt of the permit by the pump installation contractor will constitute permission to install pumps and pumping equipment.

(3) The department shall issue a Notice of Rejection, as provided in section 5-4, whenever it finds that an application fails to meet the requirements of this code or any rule, order, or regulation adopted pursuant hereto.

(4) The permit shall be prominently displayed at the site of the well prior to beginning any work thereon and shall remain so displayed until the installation is completed.

Commentary. Section 5-3 closely parallels section 5-2. The potential for harm to the public safety and waste of the Commonwealth's water resources is as great for the potential of faulty pumping mechanisms as from the risk of poor well construction. To abate this potential the department needs the permitting procedure in order to regulate pump installation. See Model Water Code Sec. 3.11.

5-4 Notice of Rejection, Suspension, or Revocation of Permit

(1) The department shall issue a Notice of Rejection

whenever it determines that an application for a permit under sections 3-2 or 3-3 fails to meet the requirements of this code or any rule, order, or regulation adopted pursuant hereto.

(2) The Notice of Rejection shall:

(a) state the ground for rejection, and may state any remedial action which may be taken to make such application acceptable for approval; and

(b) be served in writing upon the persons signing the application by registered or certified mail.

(3) Any applicant receiving a Notice of Rejection may obtain a hearing before the department by filing within thirty (30) days of the mailing of such Notice of Rejection a written petition requesting such hearing.

(4) The department may, upon investigation, suspend a permit and, after notice and hearing, may extend such suspension or may revoke the permit. Such suspension or revocation may be made on any one or more of the following grounds:

(a) material misstatement or misrepresentation in the application for a permit;

(b) failure to comply with the provisions set forth in the permit;

(c) willful disregard or violation of any provision of this code, or any rule, order, or regulation promulgated pursuant hereto; or

(d) material change of circumstances or conditions existing at the time such permit was issued.

Commentary. *This section should be read in conjunction with two sections of Part 1 of this act. The Secretary of the Department for Natural Resources and Environmental Protection has authority to suspend or revoke a permit under section 1-4. The procedures for petitioning for a hearing, conducting a hearing, and appealing from a hearing's decision are outlined in section 1-5. Cf. Model Water Code Sec. 3.12.*

5-5 Well Completion Report

Within thirty (30) days after the completion of the well, the well driller and pump installation contractor shall file, upon forms provided by the department, a written report with the board. The report shall contain the following information:

- (1) a log containing the depth, thickness, and character of the different strata penetrated and the location of water-bearing strata;
- (2) An accurate record of the work, including:
 - (a) statement of the date of beginning of work,
 - (b) the date of completion,
 - (c) length, size, and weight of the casing and how the same is placed,
 - (d) the size of the drilled hole,
 - (e) where the well is sealed off and the type of seal,
 - (f) number of cubic feet per second (cfs) or gallons per minute (gpm) of flow from the well when completed,
 - (g) pressure in pounds per square inch (psi) if it is a flowing well, and if nonflowing, the static water level and the water temperature, and
 - (h) a chemical analysis of a water sample drawn from the well; and
- (3) such additional information as may be required by the department to establish compliance with the terms of the permit, the provisions of this chapter, and all rules, regulations, and orders promulgated pursuant to this chapter.

Commentary. Under this section, prior permission is required from the Department before a well driller begins work to construct a well. Although a water use permit under Part 2 is not required for wells used for domestic purposes by individual users, a permit for well construction under this section must be obtained. Replacing the casing of a well constitutes an alteration to the well for which a well construction permit must be obtained.

The information obtained through the construction permits will be useful in evaluating applications for water use permits. In addition, the permit will insure that the proposed construction will meet the construction standards adopted by the Department as provided in section 5-6.

It should also be pointed out that this section does not contain certain provisions that are common in most state codes. First, there is no provision to minimize the possibility of delay in the administration of the

permit. Some states specify that if a specific number of days elapse after mailing the application, receipt of a permit may be implied. The drafters felt that this matter could be handled more appropriately by rules, regulations, and orders. Second, this section makes no provision for any type of emergency permit for well construction. It is likewise felt that this matter may be more appropriately handled by rules, regulations, and orders promulgated by the Department.

Subsection (5) allows a permit holder to start over again in the event that a partially completed well is ruined by equipment failure or otherwise shows evidence of not being capable of satisfactory completion. The abandoned well must be sealed or plugged. The amended permit should be granted with a minimum of paper work and delay.

This section should be read in conjunction with the provisions related to permits for installation of pump and pumping equipment, notices of rejection, well completion reports, and well construction and pump installation standards. See Model Water Code Sec. 3.13.

5-6 Well Construction Standards and Pump Installation Standards

(1) The department shall adopt minimum standards for the construction of wells and the installation of pumps and pumping equipment.

Commentary. The primary purpose of this section is to protect the ground water resource. The standards that are adopted pursuant to this section will have to be met as a basis for the issuance of each permit issued under sections 5-2 and 5-3. The standards that the governing board sets represent the minimum acceptable standards that should be followed by the well drillers and pump installation contractors as they design and plan their work.

(2) The minimum standards for the construction of wells shall include, but not be limited to, the following provisions:

(a) all wells shall be equipped with a device for measuring the amount of ground water being withdrawn from the well, such device to be approved by the department;

(b) all wells shall be capped or equipped with a control valve, such cap and control valve to be approved by the governing board;

(c) approved procedures for the plugging of wells;

(d) approved procedures for the grouting and sealing of wells; and

(e) criteria for the location of wells:

(i) with respect to possible pollution sources, and

(ii) with respect to maintaining the well in a sanitary condition.

Commentary. *The requirement of a measuring device, set forth in subsection (2) (a), is essential to the meaningful enforcement of the water use permits that are provided in Part 2. Without a measuring device on the wells, it would be almost impossible to check the amount of ground water withdrawal.*

Most states have a provision similar to subsection (2) (b). The purpose of the provision is twofold: to prevent pollution and waste. In the case of an artesian or free-flowing well, the control valve will prevent the water from flowing to waste. In the case of a nonflowing well, the cap will prevent pollutants from entering the well.

(3) Should any well not be equipped with a cap or valve as required in subsection (2) above, or should any well be allowed to flow so as to waste ground water in violation of this section, or should any well be contaminated because of deficiencies as set forth in subsection (2) above, in violation of this section, then:

(a) the department shall, upon being informed of this fact, give notice to the owner of the land upon which the well is situated to correct the defect or waste as the case may be. If the defect or waste is not corrected within ten (10) days after notice is given, the department shall have the necessary valve, cap, plug, or other device installed upon the well.

(b) the cost of installation of the valve, cap, plug, or other device and the control of the flow from the well shall, if made or done by the department, be at the expense of the owner and shall be a lien against the tract of land upon which the well is situated until the expense is paid. Said lien may be foreclosed in a civil action in any court of competent jurisdiction, and the court shall allow the plaintiff a reasonable attorney's fee to be set as a part of the cost.

(4) The minimum standards for the installation of pumps and pumping equipment shall include, but not be limited to, the following provisions:

(a) the pumps and pumping equipment shall be installed so that the pumps and their surroundings can be kept in a sanitary condition.

(b) the pumps and pumping equipment shall be of a capacity consistent with the water need and the drawdown characteristics of the well.

(c) the pumps and pumping equipment shall be durable and reliable in character.

(d) the pumps and pumping equipment shall be constructed of material which will not create a toxic condition in the water.

(e) the pumps and pumping equipment shall provide reasonable protection against entrance of pollutants.

Commentary. *By establishing procedures for the plugging of wells under subsection (3), the Department will insure that the subsurface conditions will be returned to a nearly original hydrologic condition. The well can be required to be plugged in such a manner that it will not serve as a conduit for water to move freely from one waterbearing formation to another. The establishment of grouting and sealing procedures will also prevent the vertical movement of pollutants in the well. See Model Water Code Sec. 3.14.*

5-7 Abandonment of Wells

When a well is abandoned, the owner thereof shall fill and seal the well in a manner approved by the department. Prior to abandonment the owner shall file with the governing board a report showing the following:

- (1) the name and address of the owner;
- (2) the water use permit number;
- (3) the name and address of the well driller who will be employed to perform the work required for abandonment;

- (4) the reason for abandonment; and
- (5) a description of the work to be performed to effect the abandonment consistent with the standards adopted pursuant to section 5-6 (2) (c) and (d).

Commentary. Without proper abandonment procedures ground water will be wasted and polluted. Section 5-7 establishes abandonment procedures for the sealing and filling of wells. The standards of Section 5-6 are read as part of Section 5-7. For example the requirement of grouting prevents the lateral movement of pollutants through ground water. When read together these two sections provide the standards and procedures needed to prevent abandoned wells from becoming conduits for ground water pollution. See Model Water Code Sec. 3.17.

5-8 Exemptions and Limitations

No provisions of this chapter shall apply to:

- (1) any distribution of water beyond the point of discharge from the storage or pressure tank, or beyond the point of discharge from the pump if no tank is employed;
- (2) any well, pump, or other equipment used temporarily for dewatering purposes; or
- (3) any oil, gas or salt water well covered by KRS chapter 353.

Commentary. This section allows a number of exemptions from the proposed Act's well drilling regulations.

Subsection (3) is included so that the relationship between the present act and KRS chapter 353 is clearly defined. The department of mines and minerals has jurisdiction of oil, gas, and salt water wells under KRS chapter 353. Therefore, additional regulation under this proposal would be unnecessary. Cf. Model Water Code Sec. 3.19.