

Water Law in Arkansas

Arkansas Natural Resources Commission

Revised by the Arkansas Natural Resources Commission in 2011

Preface

The development of this publication is the continuation of a project entitled Arkansas State Laws, Policy and Programs Pertaining to Water and Related Land Resources first commenced in 1968. In 1981, Paul Douglas Mays wrote Arkansas Water Law, which was published and distributed by the Arkansas Soil and Water Conservation Commission, now known as the Arkansas Natural Resources Commission. Some aspects of the work of Mr. Mays served as the basis for the body of this work which was authored by Professor, now Circuit Judge, J. W. Looney. In 2011, Professor Looney's work was updated by Commission staff to include new developments in water issues.

Substantial parts of the current work are drawn from the following articles which provide more detail on the matters outlined here:

J.W. Dellapenna, "The Law of Water Allocation in the Southeastern States at the Opening of the Twenty First Century," 25 Univ. of Ark. Little Rock L. Rev. 9 (2002).

J.W. Looney, "Modification of Arkansas Water Law: Issues and Alternatives," 38 Arkansas Law Review 221 (1984).

J.W. Looney, "An Update on Arkansas Water Law: Is the Riparian Rights Doctrine Dead?" 43 Arkansas Law Review 573 (1990).

J.W. Looney, "Enhancing the Role of Water Districts in Ground Water Management and Surface Water Utilization in Arkansas," 48 Arkansas Law Review 643 (1995).

J.W. Looney, "Diffused Surface Water in Arkansas: Is It Time for a New Rule?" 18 UALR Law Journal 393 (1996).

Martha L. Noble and J.W. Looney, "The Emerging Legal Framework for Animal Agricultural Waste Management in Arkansas," 47 Arkansas Law Review 159 (1994).

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Introduction

Water law in Arkansas is derived from a mixture of case law developed by the courts, legislation enacted by the General Assembly, and regulatory programs of a number of state agencies. Federal legislation and federal agency regulation also impact water law rules that apply in the state. In the early years of the state's development, water law evolved primarily as a matter of dispute resolution on a case-by-case basis before the courts. The Arkansas courts often looked to decisions from other states to assist in "finding" the proper rule of law to apply. As conflicts over water use have increased in recent years and as concerns for both water quality and water quantity have become matters of increased public concern, the legislature has become more actively involved in developing statutory programs to deal with a wide range of water use questions. To carry out the mandates of these legislative programs, state agencies have been called upon to implement the policies outlined in the state and federal legislation.

Historically, case-by-case resolution of disputes was a satisfactory method of handling water conflicts in Arkansas. However, when shortages result, as they do in drought conditions or as they develop in specific areas due to overuse and depletion of supplies, courts are not the most efficient institutional body for making the complex decisions that accompany such conflicts. These conflicts often involve public policy concerns as well as the interests of the particular parties that may be competing over available water. For example, a conflict over water in a particular stream involves not only the users of that water but also consideration of impacts to water quality, fish and wildlife protection, public use of the resource, navigation, and aesthetic values associated with the stream. It is the public interest associated with these values that compels legislative and administrative bodies to play an increasing role in decisions on water use. Most of the chapters in this publication will

discuss water responsibilities handled by state agencies, particularly those handled by the Arkansas Natural Resources Commission.

One way of examining water law is to consider the type of water involved. The rules involving surface water (water in streams and lakes) differ from those involving ground water. Rules involving diffused surface water (water not yet in a watercourse) are different from those involving flood waters escaping from a watercourse. Rules involving water developed in a public facility, such as a public water supply reservoir, may vary greatly from those applied to water in a free-flowing stream.

Another way of looking at water law is to consider the nature of the conflict. One set of rules will determine the public's rights to use water for recreational purposes while another set may apply to the use for consumption purposes. Water rights run with the land and may vary depending on whether the user is located next to the stream or is taking the water to another location. Rules regarding water quality may vary depending on whether the water is in a large stream such as the Arkansas River or in an "extraordinary resource"¹ stream. The rights of landowners to take gravel from the stream bed or make other use of the stream bed may vary depending on whether the stream is navigable or non-navigable and whether special rules have been enacted to reduce water pollution potential from such activities on a particular stream.

The purpose of this publication is to outline in general terms some of the water law rules that apply in these varying situations. Not all are covered in detail, but the intent is to provide a basic guideline to Arkansas water law so that individuals may better understand how any potential conflicts over use of this valuable resource will be resolved.

¹ Arkansas Department of Environmental Quality Regulation No. 2, Section 2.302(A).

Chapter 1. Riparian right to use surface and ground water

The method of allocation of water recognized in the eastern states is the “riparian rights system.” Only riparians, or those persons owning land abutting a waterway, have rights to use the water within the waterway. Under the riparian rights doctrine, a water right arises as an incident of ownership of riparian land or land overlying a ground water source of water. The riparian land limitation also means that water can only be used on riparian land. Nonriparian uses can be enjoined if harm or injury to riparian owners results.

These riparian water rights are further limited in amount and purpose by what is determined reasonable after giving due consideration to the rights of other riparian owners with property on the waterway. Under the “reasonable use” limitation, reasonableness is determined by comparing a given use with uses by other riparians. Domestic uses are frequently given preference. The question of whether a particular use is reasonable can only be determined after the use has commenced. This problem leads to uncertainty because a right is always subject to modification by implementation of new uses by other riparians.

Originally, Arkansas followed the basic concepts of the riparian rights system with regard to the allocation of surface water from rivers, lakes, and streams. Although ground water and surface water are interconnected, the two types of water are often managed differently. Surface water issues were first brought to the attention of the Arkansas courts. When ground water issues developed and became the subject of court cases, judges often looked to existing surface water cases to come up with a solution.

The Arkansas Supreme Court has partially defined the nature of the riparian right in several situations, but not all questions concerning the nature of the right have been before the court. In some cases, the court has referred to the rights as vested property rights which “inhere in the owner

of the soil.” However, the right has been limited by the generally accepted rule that a riparian owner cannot exercise his rights in derogation of the rights of another.

In 1940, a noted water law authority, Wells A. Hutchins, described this right as follows:

The use of water on tract ‘G’ may have begun fifty years ago and may have been continuous, and valuable improvements may have been made which will be seriously [impaired] if the tract is deprived of the use of a substantial part of the stream flow; yet the owner of tract ‘E’ may begin use today and lawfully demand his share of the flow, with the result that tract ‘G’ will hereafter be entitled to only a partial use of the stream. The riparian right does not depend upon use and is not lost by non-use. This is in direct conflict with the appropriative right, which may be declared forfeited if non-use of the water continues for a period prescribed by statute and which can be lost instantly by abandonment of the right.²

Arkansas formally adopted the riparian rights concept of reasonable use in 1955 in Harris v. Brooks.³ The court clarified several aspects of the scope and extent of the riparian right and stated a number of general rules and principles applicable in Arkansas:

- (a) The right to use water for strictly domestic purpose-such as for household use-is superior to many other uses of water-such as for fishing, recreation and irrigation.
- (b) Other than the use mentioned above, all other lawful uses of water are equal. Some of the lawful uses of water recognized by this state are: fishing, swimming, recreation and irrigation.
- (c) When one lawful use of water is destroyed by another lawful use the latter must yield, or it may be enjoined.
- (d) When one lawful use of water interferes with or detracts from another lawful use, then a question arises as to whether, under all the facts and circumstances of that particular case, the interfering use shall be declared unreasonable and as such enjoined, or whether a reasonable and equitable adjustment should be made, having due regard to the reasonable rights of each.⁴

A basic feature of the riparian concept of reasonable use is that the water right can vary over time in response to changed conditions. It is conceivable that a use considered reasonable at one point in time may become unreasonable due to substantial changes in water use patterns, stream flow variations, or other factors. The exercise of dormant rights by riparian owners of previously undeveloped riparian property may require adjustment in previous uses.

² Quoted in Thomas v. LaCotts, 222 Ark. 171-178, 257 S.W.2d 936 at 940 (1953).

³ 225 Ark. 436, 283 S.W.2d 129 (1955).

⁴ 225 Ark. At 444-45, 283 S.W.2d at 134 (1955).

The riparian rights doctrine limits the right to use water to those who are riparian landowners and limits use to land within the same watershed. With regard to the definition of riparian land, a basic requirement is physical contact with the stream. The Arkansas Supreme Court has never had the occasion to determine precisely which land is considered to be riparian. Two different tests have been used to resolve the question when it has arisen in other states. Under the “source of title” test, only land held as a single tract throughout its chain of title retains riparian characteristics. Any tracts that are severed lose their riparian status, and the rights do not reattach even if the land is later reacquired by a riparian owner. Under the second test – the “unity of title” test – any contiguous tracts in the same ownership have riparian status regardless of when the title was acquired.

The so-called “watershed restriction” of the riparian rights system, along with the rule restricting use to riparian land, has been generally accepted as a means of protecting the rights of riparian owners who might wish to commence use in the future. The flow would be available if needed by future riparian users. The Arkansas Supreme Court has indicated that the appropriate time for an evaluation of the relative rights of riparian owners is when one riparian owner’s use “harmfully invades” another’s interest in his use. The court has referred to the “incompatibility of interest between the two parties” as raising “immediately a question” as to the permissibility of the use.⁵

These basic concepts have meant that courts must allocate available water in disputes between riparian owners regardless of when uses commenced. In Arkansas, Harris v. Brooks illustrates the necessity of such determinations. There the conflict was between a lessee of riparian land who conducted a commercial boating and fishing enterprise on a privately owned non-navigable lake and a rice farmer who used water from the lake for irrigation purposes. Because of the unusually dry conditions in the early 1950s, the water level of the lake was below normal. The court determined that the irrigator’s continued pumping unreasonably interfered with another lawful

⁵ 225 Ark. At 446, 283 S.W.2d 129 (1955) (quoting Restatement of Torts § 852c).

use even though the irrigation use had been underway for over twenty years before the boat docks were constructed.

When competition over uses occurs, as in Harris v. Brooks, resolution through adjudication is generally inefficient and costly. Moreover, because of the delay inherent in the resolution of conflicts through the courts, this method is particularly unsuited to situations involving water use. This is one of the major criticisms of the riparian rights system. As a result, one of the first steps away from the riparian rights system is the adoption of an alternative decision-making process for water allocation.

In the mid-fifties, the Arkansas courts applied riparian rights—at least that portion of it dealing with reasonable use—to ground water. The Arkansas Supreme Court made this application in the 1957 case, Jones v. Oz-Ark-Val Poultry Co., in which it quoted from the Restatement of Torts:

Therefore, each possessor's rights and privileges with respect to the use of subterranean waters are qualified rather than absolute for the same reasons that each riparian proprietor's rights and privileges with respect to the use of water in the watercourse or lake are qualified and not absolute.⁶

By adopting this approach, the Arkansas court accepted what might be called a version of the “correlative rights doctrine” for ground water. This doctrine uses an approach similar to that of the surface water “reasonable use” rule to determine common rights to water.

In Jones, the Arkansas Supreme Court quoted from a California case:

Where two or more persons own different tracts of land, overlaid by porous material extending to and communicating with them all, which is saturated with water moving with more or less freedom therein, each has a common and correlative right to the use of this water upon his land, to the full extent of his needs, if the supply is sufficient, and to the extent of reasonable share thereof, if the supply is so scant that the use by one will affect the supply of the others.⁷

⁶ 228 Ark. 76, 82, 306 S.W.2d 111, 115 (1957).

⁷ 228 Ark. 76 at 81.

Thus, the Arkansas position is that the limitation on the scope of the water right is similar for both surface water and ground water in that both are subject to modification by the implementation of new uses by other riparian landowners or other users of ground water.

The court has also dealt with the right to transfer water away from the “riparian land” in ground water cases. In Lingo v. City of Jacksonville,⁸ the court indicated that it would be permissible for a “riparian” owner to remove subterranean and percolating water and either use or sell it away from the tract from which it was pumped, if this use did not injure the common supply of the riparian owners.

Arkansas’s initial movement away from a pure riparian rights doctrine occurred in 1957. That year the General Assembly indicated approval of the reasonable use concept, but adopted legislation authorizing the Arkansas Natural Resources Commission (ANRC) to allocate available stream water during periods of shortage.⁹ In 1991, the General Assembly addressed ground water issues by adopting the “Arkansas Ground Water Protection and Management Act,” (AGPMA).¹⁰ Arkansas has continued to move away from traditional case-by-case adjudication and has adopted a significant amount of administrative law to resolve water conflicts or potential conflicts.

A noted water law scholar characterized Arkansas’s system as “regulated riparianism,” remarking that “the administrative permit process proceeds on essentially riparian principles and that the new system is a regulation of--rather than a taking of--riparian rights.”¹¹ The chapters that follow will describe these administrative developments in more detail.

⁸ 258 Ark. 63, 522 S.W.2d 403 (1975).

⁹ 1957 Ark. Acts 81 (codified as Ark. Code Ann. § 15-22-201 et seq.)

¹⁰ 1991 Ark. Acts 154 and 342 (codified at Ark. Code Ann. § 15-22-901 et seq.).

¹¹ J.W. Dellapenna, “The Law of Water Allocation in the Southeastern States at the Opening of the Twenty First Century,” 25 Univ. of Ark. Little Rock L. Rev. 9, page 33 (2002).

Chapter 2. Reporting of water use

Generally, Arkansans must report usage of water diverted from streams, lakes, or ponds to the Arkansas Natural Resources Commission. Because the Commission is charged with the duty to make various determinations concerning water supply and demand, it is critically important that the Commission have some mechanism for receiving water usage information. For example, the ANRC must determine the water needs of agriculture, “taking into account the decreasing ground water tables and the resulting future needs for surface water to augment ground water supplies....”¹² The only means by which the ANRC can fulfill this, and related duties, is to have a system in place for determining the nature and extent of water use in the state.

Persons diverting less than 325,900 gallons (1 acre-foot) of water in any water year or diverting from natural lakes or ponds in the exclusive ownership of one person are exempt from registration.¹³ Water users must annually report source of the water, point of diversion, purpose of the use of the water, quantity diverted, location of use, and times of the year when diversion is proposed.¹⁴ Persons diverting less than 325,900 gallons (1 acre-foot) of water in any water year are exempt from registration.

Users of ground water must also submit annual reports to ANRC. However, the following wells are exempt from reporting: household wells exclusively for domestic use and wells with potential flow rates less than 50,000 gallons.¹⁵ Reporting requirements include information on the number and size of wells, crops and acreage irrigated, and the locations of wells and water use.¹⁶

¹² Ark. Code Ann. § 15-22-301.

¹³ 1969 Ark. Acts 180 (codified at Ark. Code Ann. § 15-22-215).

¹⁴ ANRC Rules § 302 and Ark. Code Ann. § 15-22-215.

¹⁵ Ark. Code Ann. § 15-22-302.

¹⁶ ANRC Rules § 402.

Chapter 3. Transfer of surface water

If a person does not already possess a riparian right to use a stream, how does that person acquire a water right? Before approving a non-riparian application, the Arkansas Natural Resources Commission must first determine that excess surface water exists.¹⁷

Excess surface water

What is excess surface water and how was it calculated? In 1985, the General Assembly defined “excess surface water” to be twenty-five percent of the amount of water left over after calculating the amount of water required for specific needs. These needs included existing riparian rights as of June 28, 1985; water needs of federal water projects existing on June 28, 1985; the firm yield of all reservoirs in existence on June 28, 1985; maintenance of minimum streamflows for fish and wildlife, water quality, aquifer recharge requirements and navigation; and future water needs of the basin of origin as projected in the Arkansas Water Plan.¹⁸

The Arkansas Water Plan refers to the comprehensive program for orderly development and management of the state's water and related land resources that is maintained by the Commission. When the Arkansas Water Plan was revised in 1990, the Commission completed and adopted its calculations of excess surface water for each of the five major basins of the state.¹⁹ These calculations were based on projected riparian uses, minimum streamflow requirements for fish and wildlife, and navigation needs to the year 2030. These needs were subtracted from the average annual flow, and the mandated twenty-five percent figure was used to calculate the “excess.” Using that procedure, the Ouachita Basin has some 725,000 acre-feet per year of excess water; the Red

¹⁷ 1983 Ark. Acts 1051 (codified at Ark. Code Ann. §§ 15-22-301 et seq.).

¹⁸ Ark. Code Ann. § 15-22-304.

¹⁹ ANRC Rule 305.1.

River Basin 1,100,000 acre-feet; the White River Basin 1,700,000 acre-feet; the Arkansas River Basin 2,700,000 acre-feet; and the Delta Basin 4,100,000 acre-feet.²⁰

Each time a non-riparian applies to the Commission for a water right, the Commission must take the numbers generated in 1990 and subtract out all reported water use for that stream segment to make sure that the 1990 calculations of excess surface water have not been exceeded.

Nonriparian permits

The ANRC Rules for the Utilization of Surface Water²¹ provide a mechanism for nonriparian owners to divert excess surface water to nonriparian land upon approval of the ANRC if the water will be applied to reasonable and beneficial use and the diversion will cause no significant adverse environmental impact.²² The procedure for issuance of a nonriparian permit depends on whether the transfer is considered to be within or between basins, with interbasin transfers being more restrictive. Nonriparian intrabasin transfers are subordinate to riparian diversions but have a higher preference than nonriparian interbasin transfers. Out-of-state transfers are last in the order of preference.

When the transfer is interbasin, the ANRC also must take into account the protection of the watershed of the basin of origin and insure against an adverse impact of the transfer on other lawful water users. In addition, the legislation places restrictions on the transportation and use of water outside the state by requiring a study by the ANRC and a recommendation to the General Assembly as to whether the transfer would be in the public's best interest.²³ The General Assembly's approval and, in some cases an interstate compact, are required in order to carry out such transfers.

For either interbasin or intrabasin transfer, the permit may be canceled if the water is used for purposes other than that stated in the permit or if more water than authorized is diverted. The applicant may be given up to two years from the date of the issuance of the permit to develop the

²⁰ ANRC, Arkansas Water Plan, Executive Summary at p. 25.

²¹ ANRC Rules for the Utilization of Surface Water.

²² ANRC Rules 304.1 and 305.7.

²³ Ark. Code Ann. § 15-22-303.

ability to make the water transfer. Surface water transfer permits may be issued for a fixed period of up to fifty years. When the use is for irrigation, the permits are considered to run with the land and can be assigned only to a subsequent owner or lessee of the land. The permits also may not be sold separate and apart from the land itself. If the Commission declares a shortage and initiates allocation, the permit holder's right to withdraw will be subject to further restriction.

Current developments

The most noteworthy proposed intrabasin transfer to date is the project under construction by the White River Regional Irrigation Water Distribution District. This District was created to develop a pumping station and transfer excess surface water to farms within Arkansas, Prairie, and Monroe Counties. Concerns about the effect of this transfer led to the addition of a special provision in 1995 that prevents White River Basin transfers from exceeding fifty percent (50%) of the monthly average of each individual month of excess surface water.²⁴

Development of the Fayetteville Shale has led to many applications for nonriparian intrabasin transfer permits. Between 1985 and 2007, the Commission issued 16 non-riparian permits for municipal, agricultural, and industrial use. As of March 3, 2010, the Commission had received 726 applications from gas companies. Gas companies develop gas wells by pumping fluid into a well at a rate sufficient to increase pressure downhole and thereby expand the rock below to open pockets and allow travel of natural gas. The companies use surface water and, in most cases, are required to get nonriparian permits since most usage will be off the riparian tract of land. Depending on the method, disposal of excess water is regulated by the Arkansas Oil and Gas Commission and Arkansas Department of Environmental Quality.

²⁴ Ark. Code Ann. § 15-22-304(e).

Chapter 4. Allocation of surface water

This chapter addresses allocation of water during times of shortage. Whenever a shortage of water in any stream or part of a stream exists to the extent that there is insufficient water to meet the requirements of all water needs, the Arkansas Natural Resources Commission may allocate available water among the competing water uses so that each use obtains an equitable apportionment of the amount of water available. The Commission will allocate among water uses subject to the following order of preference: (1) sustaining life, (2) maintaining health, and (3) increasing wealth.²⁵

This process may also be initiated by a third party. A third party, deprived of usage or fearful that competing water users may impair his usage, may petition the Commission for allocation of available water supplies for a specific stream. To date, the Commission has received no allocation requests and has not initiated any allocation procedures.

Prior to allocation, the Commission must determine that a water shortage exists or is imminent. This condition of stream shortage is also known as the “allocation level” because this is the stream stage that triggers the Commission’s power to apportion the water among users. Once the Commission determines that a water shortage exists or is imminent, water users on the stream subject to shortage will be instructed to withdraw no more than the allocation levels previously assigned by the Commission, or if no levels have been assigned, the Commission will go through the hearing process described in Section 309.1- 309.8 to establish levels for all users. The Commission has never declared a period of shortage.

²⁵ Ark. Code Ann. § 15-22-217.

Waters and uses not subject to allocation

Before beginning an allocation process, ANRC must first eliminate waters and uses that are excluded from the process by rule and law. One category consists of “waters useable without allocation.” These include:

- (a) Diversions by any persons of less than 325,900 gallons (1 acre-foot) of water in any water year.
- (b) Water captured by tailwater recovery systems.
- (c) Water diverted from lakes, ponds, reservoirs or springs in the exclusive ownership of one person.
- (d) Water previously captured whether transmitted by ditch, channel, or pipe.
- (e) Water diverted from intermittent streams.
- (f) Diffused surface water.
- (g) Water captured by instream pit reservoirs, dams constructed pursuant to a lawful permit, or low water weirs and water stored in federal impoundments.
- (h) Non-consumptive usage.²⁶

These particular water sources were excluded because the quantity of waters consumed by the source was considered insignificant or the source would be too difficult to measure.

Additionally, ANRC defines certain uses and needs as “reserved water uses” and also excludes these waters from the amount available for allocation. “Reserved uses,” include: (1) domestic and municipal-domestic, (2) minimum streamflow, and (3) federal water rights.

The first reserved use, “domestic and municipal-domestic” addresses drinking water. Commission rules define “domestic uses” to include “ordinary household purposes including human consumption, washing, the watering of domestic livestock, poultry and animals and the watering of home gardens for consumption by the household.”²⁷ “Municipal-domestic use” recognizes distribution of domestic water by a central distribution system and defines the use to include “human consumption, laundry, bathroom facilities, fire protection, and the watering of home gardens.”²⁸

²⁶ ANRC Rules § 307.2.

²⁷ ANRC Rules § 301.3 (Q).

²⁸ ANRC Rules § 301.3 (X).

The second reserved use, “minimum streamflow,” refers to the quantity of water necessary to support interstate compacts, navigation, fish and wildlife, water quality, and aquifer recharge.”²⁹ Because of significant differences between streams in different eco-regions, minimum streamflows are developed on a site-specific basis since a given percentage of flow would not be appropriate for all streams. Before establishing minimum streamflows for any stream, ANRC must first notify and accept comments from the Arkansas Game and Fish Commission, the Arkansas Pollution Control and Ecology Commission, and any other interested state boards and commissions.³⁰ ANRC will then follow its usual statutory rulemaking procedures. In 2009, the Commission adopted minimum streamflow rules for the main stem of the White River. Minimum streamflows have not been calculated for any other river segments.

The category of “federal water rights,” the final reserved use, is not defined by statute. The ANRC rules, however, recognize “[t]here may be some water over which the United States has a preemptive right that is superior to rights of others.”³¹ The effort to recognize federal water rights was an attempt to meet any demands of the federal government for those uses traditionally associated with the federal government, such as interstate compacts and navigation. Another possible category of “federal right,” the right to acquire and use water stored in a federal government reservoir, was already recognized in existing legislation. The original 1957 legislation granted, “to the full extent that the State of Arkansas can grant that right,” the right to acquire absolute title to water stored in reservoirs created by federal agencies such as the Corps of Engineers.³²

Allocation preference

After separating out the reserved water uses and the water amounts too insignificant to quantify, the Commission will allocate water subject to the following order of preference: (1)

²⁹ Ark. Code Ann. § 15-22-202 (6).

³⁰ Ark. Code Ann. § 15-22-222.

³¹ ANRC Rules § 307.7.

³² Ark. Code Ann. § 15-22-218.

agriculture, (2) industry, (3) hydropower, and (4) recreation.³³ The ANRC rules on allocation also attempt to establish a priority of diversions by granting riparian uses a higher priority than nonriparian uses. Riparian diversions take priority during an allocation over all nonriparian diversions even if the nonriparian use was of a higher preference in the “order of uses.” For example, a riparian recreational use would apparently be of higher priority than a nonriparian agricultural use, even though “agriculture” is designated as first in the “order of uses.”

The list below summarizes how allocation would occur. One would give absolute priority to the reserved uses. The reserved uses are repeated below:

Reserved Uses Prior to Allocation

- domestic and municipal-domestic
- minimum streamflow
 - interstate compacts
 - navigation
 - fish and wildlife
 - water quality
 - aquifer recharge
- federal water rights

The remaining uses would receive allocations in the following order:

1. Riparian (registered)
agriculture
industry
hydropower
recreation
2. Riparian (nonregistered, but previously used)
3. Nonriparian Intrabasin Transfer
agriculture
industry
hydropower
recreation
4. Nonriparian Interbasin Transfer
agriculture
industry
hydropower
recreation

³³ ANRC Rule 307.4.

5. Interstate Transfer
agriculture
industry
hydropower
recreation
6. Riparian (not registered, not previously used) (probably at this level)

Allocation procedure

ANRC will express each individual allocation as a percentage of available water under varying levels of flow on a daily basis. Each diverter will be assigned an allocation based on allowable daily pumping expressed both as a percentage and as a quantitative measure with appropriate reference to a gauge at the point of diversion. Under normal flow conditions, if minimum daily pumping allocations are not exceeded, no restrictions apply to the time or rate of pumping.

No rights will be limited unless ANRC has completed an allocation exercise on the affected stream. To complete an allocation, ANRC must conduct water measurements on the individual stream and calculate water needs for the stream. Each diverter upon that stream must have a stream gauge at the diversion site. When the water level is within a range described to the diverter as the “green zone” or normal diversion level, riparian and nonriparian permittees may divert water. When the water drops to or below the level identified to the diverter as “yellow zone” or “allocation zone”, then water can only be removed if considered (1) “usable without allocation,”³⁴ (2) if the water is lawfully diverted for a “reserved use,”³⁵ or (3) if the Commission has gone through an administrative process to allocate the water. When the water is at or below the “red zone” or the minimum streamflow level, all diversions except those for domestic and municipal-domestic uses must stop.

³⁴ ANRC Rules § 307.2.

³⁵ ANRC Rules § 307.3.

The procedure for allocation may be instituted by any person affected by the shortage or by ANRC on its own initiative.³⁶ The rules outline a detailed notification procedure with statutory requirement of notice and hearing. Once it has been established that the allocation is appropriate, the amount to be allocated is expressed as a percentage of available water on a daily basis under varying levels of flow. A streamflow gauge may be used at the point of diversion to indicate permissible levels, including an indication of the minimum streamflow below which diversions may not continue except for domestic or municipal-domestic use. In cases of emergency, ANRC may shorten the time frame for determination of allocation and may modify predetermined allocations for nonriparian transfers to minimize the effects on public health, safety, or welfare. ANRC offers an internal appeals process to affected individuals who may also obtain circuit court review of the ANRC rule, regulation, or order.³⁷

The Commission may make advance allocation determinations prior to the development of a shortage condition, but no such determinations have yet been made.³⁸ Prior to allocating excess surface water among users, reserved uses, such as minimum streamflows, must be considered. No advance allocations have been completed.

Disputes over water use appear to be more common, especially in unusually dry years. These dry periods have been followed by rainfall close enough in time and intensity that shortage conditions have never been declared. However, as the number of water users and quantity of water used grows, it becomes more likely that shortage conditions will be reached and allocation triggered.

³⁶ ANRC Rules § 308.1 to 310.1.

³⁷ Ark. Code Ann. § 15-22-209.

³⁸ ANRC Rules § 304.14 (intrabasin) and § 305.18 (interbasin).

Chapter 5. Critical ground water area designation

The Arkansas Groundwater Protection and Management Act defines “critical ground water areas,” provides an administrative process for identifying these areas, and also provides a process for initiation of regulation limiting ground water withdrawals within these areas. The legislation also authorizes ANRC to establish ground water criteria and standards,³⁹ implement a conservation education and information program to increase public awareness,⁴⁰ and introduced the concept of “grandfathered water rights.”⁴¹ Subsequent amendments require individuals with wells in certain aquifers to install meters to the well to more accurately compute water use.⁴²

Critical ground water area designation

One of the most salient and least understood features of this legislation is that identification of critical ground water areas is a separate process from regulation. Before any regulatory program is implemented, the critical areas must be designated. ANRC must hold public hearings in each county within the proposed critical area before designation. Prior to these hearings, the ANRC must describe the proposed action, the reasons for the designation, and the recommended boundaries of the critical area.

The Commission has designated three critical ground water areas. The “South Arkansas Critical Ground Water Area” is composed of the Sparta aquifer in Columbia, Ouachita, Bradley, Union, and Calhoun Counties. Since the 1996 designation, education, conservation, and development and usage of excess surface water have caused levels within the areas to stabilize or rise.⁴³ The “Grand Prairie Critical Ground Water Area,” designated in 1998, includes the alluvial and

³⁹ Ark. Code Ann. § 15-22-906.

⁴⁰ Ark. Code Ann. § 15-22-907.

⁴¹ Ark. Code Ann. § 15-22-910.

⁴² Ark. Code Ann. § 15-22-915.

⁴³ Arkansas Ground Water Protection and Management Report for 2006 at page 26.

Sparta aquifers within Jefferson, Arkansas, and Prairie Counties as well as parts of Pulaski, Lonoke and White Counties. Water level sampling data from this area continues to show declines. The Grand Prairie Irrigation Project, once in place, is expected to relieve unmet demands upon the aquifers.⁴⁴ The Cache Critical Ground Water Area, designated in 2009, includes the alluvial and Sparta aquifers within portions of Clay, Craighead, Cross, Greene, Poinsett, St. Francis, and Lee Counties lying west of Crowley's Ridge.

Water level data collected by the Commission, the United States Geological Survey, and the Natural Resources Conservation Service of the United States Department of Agriculture suggests that there are more areas experiencing significant water level declines that may qualify for critical ground water designation. A critical ground water area designation can benefit landowners within the area because tax credits are available for conversion from ground water to surface water, with the highest amount of credit going to surface water conversions by individuals owning land in critical ground water areas.⁴⁵ However, many affected persons have resisted designation in fear of regulation and loss of economic advantage.

Initiation of regulatory authority

Even when an area is formally designated as a critical ground water area, this designation alone does not provide the ANRC with the authority to immediately implement a regulatory program affecting ground water withdrawal in the designated area. The Commission must next determine that the initiation of regulatory authority within a critical area is necessary and follow outlined procedures.⁴⁶ This declaration must be made in accordance with procedures outlined in the Arkansas Administrative Procedure Act and must follow public hearings in each county within the proposed area. Any difference in boundaries from the previously designated critical areas must be described in the proposal, as well as the reasons for any such changes. No regulatory program may

⁴⁴ Arkansas Ground Water Protection and Management Report for 2006 at page 32-36.

⁴⁵ Ark. Code Ann. § 26-51-1007 and § 26-51-1008.

⁴⁶ Ark. Code Ann. § 15-22-909.

be initiated until this procedure for declaration of necessity has been followed. To date, the Commission has not sought regulatory authority in any of the designated areas.

Regulation of withdrawals

Once the ANRC has made a declaration of necessity, a regulatory program may be implemented through a system based on the issuance of “water rights.”⁴⁷ Like surface water rights, ground water rights will also be prioritized by type of usage: sustaining life, maintaining health, and increasing wealth.⁴⁸ No regulation of withdrawal is authorized for either low volume wells (fewer than 50,000 gallons per day) or individual household wells used exclusively for domestic use.⁴⁹ Users of ground water from wells existing at the time the regulatory program is implemented must apply for issuance of a “water right” within one year of initiation of regulation. Such a right is fully recognized based on the average quantity withdrawn, applied to beneficial use, and reported during the past three years. Some flexibility exists to allow earlier reports to be used in calculating the three-year average where the amount of reported use is “significantly below normal use levels.”⁵⁰ In addition, any new wells constructed during the first year of initiation of the regulatory program are likewise “grandfathered” based on the amount requested. Failure to apply for a water right within one year of regulatory authority creates a conclusive presumption of abandonment of use. This means that the Commission can identify the landowner’s right to use the water as abandoned regardless of whether the well is being used.

These “grandfathered rights” provisions, read in conjunction with the limitations on the Commission’s powers, indicate that reduction or limitation of withdrawals by users of wells existing at the time the regulatory program is implemented could occur only in limited circumstances. First, there must be an alternative surface water supply available. In the alluvial aquifer, surface water

⁴⁷ Ark. Code Ann. § 15-22-910.

⁴⁸ Ark. Code Ann. § 15-22-910.

⁴⁹ Ark. Code Ann. § 15-22-905.

⁵⁰ Ark. Code Ann. § 15-22-910(a)(1).

must be available and the cost of usage of that water must be no greater than the operating costs of using the alluvial wells. Reductions on withdrawals from a sustaining aquifer, such as the Sparta, may occur if alternative water supplies become available regardless of cost of operation.⁵¹ Second, ANRC cannot limit withdrawal from an alluvial well if the user can demonstrate a reduction of 20% due to water conservation or conversion to surface water supplies. For sustaining wells, the Commission may consider voluntary reductions and conservation measures when determining reductions.

⁵¹ Ark. Code Ann. § 15-22-905(1)(a) and (b).

Chapter 6. Construction of dams

Arkansas has legislation dating to the late 1800s governing the erection of dams in streams. While this legislation contemplated construction of milling equipment, the general provisions are broad enough that they might be applicable in other situations as well. The legislation declares “dams, stoppages and obstructions” not made according to law to be public nuisances.⁵² A procedure is set out for approval of the erection of dams in non-navigable streams where the landowner owns the land on both sides.⁵³ This procedure requires a petition in circuit court if the dam is likely to overflow lands of other persons. The court will impanel a jury to visit the site and determine the amount of damage by “reason of inundation consequent upon the erection of the dam as proposed.”⁵⁴ The jury will also consider to what extent ordinary navigation and the passage of fish will be obstructed and whether the “health of the neighborhood” will be “materially endangered” by the erection of the dam.⁵⁵ Furthermore, the jury will determine if any proprietor’s “dwelling” or “outhouses, curtilages, or gardens” or “orchard” will be overflowed by the dam.⁵⁶ If the dam is authorized, the permit may be conditional on arrangements for passage of fish and payment of all damages and valuations made and assessed by the jury.

In 1957, the legislature granted ANRC the authority to issue permits for dam construction.⁵⁷ ANRC has permitted dams to create recreational lakes, flood control, sediment control, and water supply. With the exception of dams constructed and maintained by the Corps of Engineer, any person constructing a dam impounding fifty acre-feet or more of water or with a height of twenty-five feet or more must obtain a construction permit. A construction permit is not required if the dam height is at or below the high water mark on any stream. Regardless of size, upon petition by

⁵² Ark. Code Ann. § 18-15-703.

⁵³ Ark. Code Ann. § 18-15-704 to 709.

⁵⁴ Ark. Code Ann. § 18-15-706(b)(1).

⁵⁵ Ark. Code Ann. § 18-15-706(b)(3), (4).

⁵⁶ Ark. Code Ann. § 18-15-706(b)(2).

⁵⁷ Ark. Code Ann. § 15-22-210 to -214.

persons affected and after notice and hearing, if the ANRC determines that a dam otherwise exempt would pose a significant threat to life or property, a construction permit will be required.

A dam construction permit can only be granted if specified conditions are met. A dam can only be constructed to impound “surplus surface waters” and to operate in such a way as to discharge a quantity of water (as fixed by ANRC) necessary to preserve the flow below the dam to protect the rights of any lower riparian owner and fish and wildlife dependent on the flow. Because the “lives and property” of persons downstream must be adequately protected, the dam must be constructed and maintained in such a way as to preserve the dam and reservoir for the permit period. Finally, the dam must be constructed and operated to impound water only on land owned by the permit applicant or on beds of streams owned by the state.⁵⁸

Permits may be issued for a period necessary to permit amortization (cost recovery) of reasonable indebtedness incurred in connection with construction of the dam. This period is limited to fifty years. Permits are issued only after proper application, payment of the fee, notice, and public hearing (if requested).⁵⁹ Permits may be canceled or modified upon failure to maintain the dam adequately or to comply with conditions for dam operation.⁶⁰ ANRC representatives have a right of entry to inspect construction work, maintenance, and operation.⁶¹

Because many dams do not meet the height requirements or area impoundment limits for permits, the major restriction on construction and operation may be imposed by other legal rules. One of the conditions required before a dam permit can be issued is that it not affect downstream riparians or instream flow requirements.⁶² The allocation rules, however, go beyond permitted dams; they grant a superior position to those taking water from streams where the water is captured

⁵⁸ Ark. Code Ann. § 15-22-210.

⁵⁹ Ark. Code Ann. § 15-22-210(4).

⁶⁰ Ark. Code Ann. § 15-22-213.

⁶¹ Ark. Code Ann. § 15-22-210(2).

⁶² Ark. Code Ann. § 15-22-210.

by “instream pit reservoirs” and “low water weirs.”⁶³ These types of water capture can be constructed without a permit for dam construction.

A person may only construct dams to impound water on land owned by him or on beds of streams owned by the state.⁶⁴ If a permitted dam impounds water unlawfully on land not owned by the permit holder, the owner whose land is affected has an action at law for trespass damages and has the right to take water from the impoundment at a point on his land so long as the water is unlawfully impounded.⁶⁵ Similarly, a person whose land was affected by impounded water from a dam that was exempt from permit would have a cause of action for damages.

⁶³ ANRC Rules § 307.2(g).

⁶⁴ Ark. Code Ann. § 15-22-210(3).

⁶⁵ Ark. Code Ann. § 15-22-216.

Chapter 7. Water distribution

One of the primary objectives of a water allocation system is to facilitate application of water to its highest and best use. Beneficial uses of water may be desired at some point other than at a riparian location. Although some water is provided by non-governmental entities, most water associations are structured as political subdivisions. Some of these systems may have started out as nonprofits and since converted to quasi-governmental entities to obtain the authorities and benefits afforded to political subdivisions.

Public suppliers have special rules available to them to facilitate water transfer. For example, current law permits municipal suppliers to divert water for public use by using eminent domain to acquire lands for waterworks purposes.⁶⁶ The Arkansas Supreme Court has indicated that, in the absence of such an eminent domain proceeding, a city's riparian rights are the same as any other riparian owner. A city, like any other riparian landowner, could use water for purposes "incident to" the riparian acreage, and could not divert water from a stream and then sell the water commercially to city inhabitants without compensation to those whose rights were affected.⁶⁷

For over a century, special governmental districts provided basic public services, including supply of water for both urban and agricultural uses. These districts flourished in the late 19th century due to limitations placed on county and local governments in the Arkansas Constitution of 1874. Such districts, described as "quasi-governmental," have special or limited powers.

California was one of the first states to use special governmental districts for water supply purposes. The Wright Act, adopted by California in 1887, sanctioned the formation of special water districts with the authority to issue bonds and levy compulsory property assessments against

⁶⁶ Ark. Code Ann. § 18-15-401.

⁶⁷ Harrell v. City of Conway, 224 Ark. 100, 271 S.W.2d 924 (1954).

property in the district that benefited, directly or indirectly, from the function of the district.

Although the compulsory taxation feature of the Wright Act was challenged, the United States Supreme Court upheld the Wright Act, determining that such districts benefited the agricultural economy and, thus, the public generally.⁶⁸ The Court stated:

To irrigate and thus bring into possible cultivation these large masses of otherwise worthless lands would seem to be a public purpose and a matter of public interest, not confined to the landowners, or even to any one section of the state. The fact that the use of the water is limited to the landowner is not therefore a fatal objection to this legislation. It is not essential that the entire community or even any considerable portion thereof should directly enjoy or participate in an improvement in order to constitute a public use.⁶⁹

The Eighth Circuit described the quasi-governmental nature of special districts in Drainage District Number 2 v. Mercantile-Commerce Bank & Trust Co.,⁷⁰ which dealt with an Arkansas drainage district:

[In Arkansas], ‘local improvement districts and their commissioners are governmental agencies created as quasi public corporations deriving their powers directly from the Legislature and exercising them as the agent of the property owners in the district whose interests are affected by the duties they perform. They exercise no governmental powers except those expressly or impliedly granted by the Legislature. They are not political or civil divisions of the state like counties and municipal corporations created to aid in the general administration of the government.’⁷¹

Arkansas passed two legislative acts important to water distribution: the “Arkansas Irrigation, Drainage and Watershed Improvement District Act” and the “Regional Water Distribution District Act.” In 1949, the Arkansas Irrigation, Drainage and Watershed Improvement District Act was approved.⁷² This Act authorizes “the acquisition by purchase, lease, gift or condemnation of water rights and all other properties . . . and all other rights helpful in carrying out the purposes of

⁶⁸ Fallbrook Irrigation District v. Bradley, 164 U.S. 112 (1896).

⁶⁹ 164 U.S. at 161.

⁷⁰ Drainage Dist. No. 7 of Poinsett County v. Hutchins, 69 F.2d 138 (8th Cir. 1934).

⁷¹ 69 F.2d at 140 (quoting Drainage Dist. No. 7 of Poinsett County v. Hutchins, 184 Ark. 521, 529, 42 S.W.2d 996, 1000 (1931)).

⁷² 1949 Ark. Acts 329 (codified at Ark. Code Ann. §§ 14-117-101 to -427).

the organization of the district.” The governing boards of such districts are authorized to make regulations for “the delivery of water owned or acquired by it to users. . .”⁷³

The 1957 Regional Water Distribution District Act⁷⁴ was passed to make use of water supply in multipurpose reservoirs constructed by the Corps of Engineers and to create a nonprofit regional water distribution district with authority to participate in Congressional projects. These districts were originally used to supply water for municipal and industrial uses. However, this Act has been more frequently used to create districts for the specific purpose of supplying agricultural water. Districts created under this act have broad authority.

Regional Water Distribution Districts (RWDD) are authorized (1) to acquire absolute title to water from Corps of Engineers reservoirs and to use this water for any purpose; (2) to acquire water storage and withdrawal rights; (3) to transport, distribute, sell, furnish, and dispose of the water; (4) to regulate, define and control the rate and location of any withdrawal or transfer of water “owned, acquired, or developed by the district,” and (5) to construct, purchase, lease, operate, sell or dispose of any facilities or property rights.⁷⁵ At present, approximately thirty RWDDs have been formed.

RWDDs also have broad powers to assist customers in preparation of their premises for the use of water and to deal with both real and personal property, including easements and rights-of-way. In addition, in connection with the acquisition, construction, improvement, operation, or maintenance of its transportation and distribution facilities, a district is authorized to use the bed of any stream, “without adversely affecting existing riparian rights.” This right also extends to public property such as highways, rights-of-way or easements and tax-forfeited land. Presumably, such districts may exercise the power of eminent domain for acquiring water rights because the authorization for eminent domain power includes the purpose of acquiring rights of way “and other properties” necessary in the construction and operation of the district. The eminent domain power

⁷³ Ark. Code Ann. § 14-117-304(e).

⁷⁴ 1957 Ark. Acts 114 (codified at Ark. Code Ann. § 14-116-101 to -406).

⁷⁵ Ark. Code Ann. § 14-116-402.

may not be used “for the acquisition or construction of private on-farm irrigation reservoirs or natural watercourses.”⁷⁶

Because the primary purpose of this Act was water distribution, the only authorized source of district revenue was the sale and distribution of water. However, in 1995, the General Assembly authorized the districts to levy assessments. A district is now authorized to develop improvement project plans for improvement project areas within the district.⁷⁷ If the improvement plan is approved by the Commission, and by the circuit court which originally established the water district, an assessment of benefits accruing to land with the improvement project area is made and a tax may be levied against the benefited land to pay for the costs of works of improvement for the supplying of irrigation water.

⁷⁶ Ark. Code Ann. § 14-116-402 (10).

⁷⁷ 1995 Ark. Acts 838 (codified at Ark. Code Ann. § 14-116-501 to -801 and amending various other sections).

Chapter 8. Diffused surface water

Arkansas's riparian or regulated riparian system applies to surface water in watercourses, streams, and lakes. However, separate rules govern the rights of landowners to deal with diffused surface water. "Diffused surface water" means water occurring naturally on the surface of the ground other than water found in natural channels, lakes, or ponds.⁷⁸ Because the amount of diffused surface water is too minimal to calculate, the statutory modifications of the riparian doctrine in Arkansas carefully exclude diffused surface water from regulation.⁷⁹ Further, restrictions imposed by legislation which impose permitting requirements for dam construction also exclude many smaller dams designed to capture diffused surface water.⁸⁰

It has been left to the courts in Arkansas to develop rules for determining when water is considered to be in a watercourse, and, consequently, to adopt rules dealing with diffused surface water. Issues related to these questions most often come up in the context of four activities: First, a landowner may wish to divert, collect, and use water on the surface of the land. Second, a landowner may wish to collect and remove excess water from the land or establish a drainage system for removal of water. Third, a landowner may wish to prevent water from coming onto the property by erecting a structure, such as a dike or levee, or otherwise preventing water from entering certain areas. Fourth, a landowner may be charged with responsibility for obstructing a watercourse through his failure to keep it clear so that water can flow naturally. In all such cases the extent to which the landowner may achieve the goals or incur liability is dependent on the answer to two basic questions: What is a watercourse? What rules apply to diffused surface water?

⁷⁸ Ark. Code Ann. § 15-22-202(3).

⁷⁹ Rule 302.2(C) and 307(2)(E) and (F)

⁸⁰ See, Ark. Code Ann. § 15-22-214.

What is a watercourse?

The Restatement of Torts defines surface water as: “Waters from rain, springs or melting snow which lie or flow on the surface of the earth but which do not form part of a watercourse or lake.”⁸¹ Under this definition, it becomes necessary to determine whether a watercourse exists in order to define diffused surface water. The question of what is a watercourse could be asked conversely: What is diffused surface water? Water found on the surface of land is treated as diffused surface water if it is not yet in a watercourse.

The Arkansas courts have focused on this question in a variety of contexts. One of the first expressions of a workable definition of watercourse came in 1916 in Boone v. Wilson,⁸² a dispute involving the accumulations of “drift, mud, weeds and other matter” which diverted the flow of water onto land of the plaintiffs. They claimed this was an obstruction of a watercourse and the defendants were responsible for resulting damage. While the court was not convinced that the drift was caused by any “act of commission or any failure⁸³” on the part of the defendant, the court had to determine whether the area in question constituted a watercourse to reach its final result.

In determining that the water upon the Wilson land was within a natural watercourse, the court applied definitions of watercourse from an Idaho case and a California case. The Supreme Court of Idaho defined watercourse as:

[A] stream of water flowing in a definite channel, having a bed and sides or banks, and discharging itself into some other stream or body of water. The flow of water need not be constant, but must be more than mere surface drainage occasioned by extraordinary causes. There must be substantial indications of the existence of a stream, which is ordinarily a moving body of water.⁸⁴

The California Supreme Court described watercourses as:

⁸¹ Restatement of Torts (Second) § 846.

⁸² 125 Ark. 364, 188 S.W. 1160 (1916).

⁸³ 125 Ark. 364, 371, 188 S.W. 1163.

⁸⁴ Id. At 368, 188 S.W. at 1162 (quoting Hutchinson v. Watson Slough Ditch Co., 16 Idaho 484, 101 P. 1059, 1061 (Idaho 1909)).

[A] running stream of water, a natural stream, including rivers, creeks, runs and rivulets. There must be a stream, usually flowing in a particular direction, though it need not flow continuously. It may sometimes be dry. It must flow in a definite channel, having a bed and banks, and usually discharges itself into some other stream or body of water. It must be something more than mere surface drainage over the entire face of the tract of land occasioned by unusual freshets or other extraordinary causes.⁸⁵

These same definitions were used by the court in 1936 to address a “slough” across which the defendants had constructed a dam or levee.⁸⁶ The dam was located in an area described as a “draw, slash, depression or swale” known as “Raft Slough.” It was apparently (but not within memory of the witness testifying) the channel or course of a stream but now acted more in the nature of a “long hole” or shallow “reservoir.” The plaintiffs claimed it was a watercourse as defined in Boone v. Wilson. Water sometimes flowed in the opposite direction toward a drainage ditch which crossed the slough, and the evidence showed that Raft Slough would not operate as a drainage canal unless additional ditches were cut for flow of the water. A part of the bed of the depression was in cultivation. Given all these facts, the court was not convinced that the slough met the definition of watercourse.

The matter of watercourse determination was before the court again in the 1950s. In Turner v. Smith,⁸⁷ the defendant had constructed a rectangular reservoir some one and three-quarters of a mile long and a mile wide. The reservoir was constructed for duck-hunting. The levee around the reservoir was about three feet high and the plaintiffs claimed it obstructed natural watercourses. The court applied the definition from Boone v. Wilson to find that at least two natural watercourses had been obstructed by the levee. The north levee crossed “Short Bayou” which had a clearly visible channel at its point of entry. The bayou flattened out in the nearly level timberland but did “flow sluggishly” toward the southeast until it “reappeared” as a stream with well defined banks.

⁸⁵ Id. At 368, 188 S.W. at 1162 (quoting Sanguinetti v. Pock, 136 Cal. 466, 69 P. 98 at 100 Cal. (1902).

⁸⁶ Leader v. Matthews, 192 Ark. 1049, 95 S.W.2d 1138 (1936).

⁸⁷ 217 Ark. 441, 231 S.W.2d 110 (1950).

Similarly, “Fish Lake Bayou” entered the property and temporarily “fingered out” to become a “marsh” or “scatters” before reappearing as a bayou. The court said:

The fact that these streams temporarily flattened out and flowed without well defined banks did not destroy their character as watercourses, nor did this fact deprive the appellees of their right to insist that the water’s flow be unimpeded.⁸⁸

According to the court, a watercourse may at intervals “spread out and become sluggish” without being reduced to surface water.

In a 1953 case, an area contended to be a natural watercourse had been used for 14-15 years as a rice farm.⁸⁹ The area was described as “sway” but nearly flat. Drainage from higher land to the east converged to form a well-defined stream. However, when the stream reached the flat lands west of the ridge, it left its banks and spread over the flat lands. It followed the lowest portions eventually reaching the L’Anguille River after a well-defined channel reappeared. The “depression” was some 100-400 feet wide and 5000 feet long. The defendants had constructed a levee or dike which prevented any of the water from crossing their property.

The fact that the land had been used for 14-15 years for rice production “destroys the contention that it is a natural watercourse.”⁹⁰ Quoting the lower court, the Arkansas Supreme Court reiterated that “the most that can be said is that in the case of overflows, or excessive rains, the water naturally follows the contour of the land, and if unobstructed would recede over this ‘sway,’ as indicated by plaintiffs’ witness.”⁹¹

Why does it matter whether surface water is considered to be in a watercourse? First, all rules for allocation and use of water under the riparian rights system are applicable to water within watercourses. This means that the rights of the owner of land next to the watercourse to use the water or others who use water from the watercourse will be determined by application of the riparian

⁸⁸ Id. at 444, 231 S.W.2d at 112.

⁸⁹ Reddmann v. Reddmann, 221 Ark. 727, 255 S.W.2d 668 (1953).

⁹⁰ Id. At 732-33, 255 S.W.2d at 670. (citing Dent v. Alexander, 218 Ark. 277, 235 S.W.2d 953 (1951)).

⁹¹ Id. At 733, 255 S.W.2d at 670.

rights concept of “reasonable use.” Second, the state has imposed permit requirements for dam construction along with other statutory restrictions. Third, a number of prohibitions on what can be done in damming, filling, or otherwise preventing flow come into play. Particular statutes govern the responsibility of landowners in keeping watercourses open and free from obstructions.

Rules of liability

When one landowner takes action to deal with diffused surface water, either to prevent it from coming onto lower lying land or to remove excess water from the land, neighboring property owners may complain of damage to their property. To determine the liability arising from such actions, Arkansas courts have applied a modified version of what is called the “common enemy” rule. In its pure, unmodified formulation this property rule suggests that diffused surface water may be treated as a common enemy and a property owner may take whatever steps necessary to protect against it. The concept has its greatest validity in guarding against floodwaters or waters from the sea. It has less justification when applied to situations involving mere drainage of surface water but is still applied in some states, particularly in urban areas. Applied in its pure form, the rule would permit a landowner to construct dams, walls, levees or ditches to prevent water from coming onto the property and would allow a property owner to fill, level, and drain property without responsibility for resulting damage to neighboring property.

The pure common enemy rule was not long accepted by many courts because of the harshness of the result. A number of courts adopted the “common enemy” concept but also imposed liability if the landowner negligently protected his property and harm resulted to neighboring property. This modification permitted courts to evaluate the actions of the property owner to determine if he caused “unnecessary harm.” Certainly, the collection and discharge of the water onto neighboring property through artificial means might be considered “negligent,” and if it causes

“unnecessary harm,” liability would be imposed. Acceleration of flow by means of ditches or other artificial means would appear to violate the principle.

In Arkansas, the liability for flow of water across lands was clearly addressed for the first time in Little Rock & Fort Smith Railway Co. v. Chapman,⁹² an 1882 case involving the construction of an elevated embankment and roadway which caused water to stand on the premises of the plaintiff. In Chapman the court analyzed the conflicting rules for dealing with surface water, a matter which the court said had “never heretofore” been settled in the state. The court, then, proceeded to adopt a modified version of the common enemy doctrine.

The court next analyzed the approach in other states and concluded that the common enemy doctrine “clothed with qualifications” was the better rule since the unqualified right decisions did not “commend themselves to our sense of justice.” While adopting a modification of the unqualified right, the court quoted from a prior source which suggested the test was whether in making improvements the owner acted “in good faith” and “with no purpose of abridging or interfering with any of their neighbor’s rights.” If the improvements “necessarily do damage” to the neighboring land, the maxim is not infringed.

When applied to the facts, the court felt the railroad had constructed the roadbed with insufficient drains. The resulting damage was “unnecessary, and was not the result of a fair and proper exercise of its franchise.” The court said: “It was not reasonable that it should render so much property useless, when it might so easily have prevented it without detriment to its operations.”⁹³

The Chapman case established the basic rule for the Arkansas courts. Future courts applied the Chapman approach to a variety of situations. For example, in Baker v. Allen,⁹⁴ the court applied the Chapman analysis to find that a levee established across a “slight, but broad, depression” along

⁹² 39 Ark. 463 (1882).

⁹³ 39 Ark. 463, 481.

⁹⁴ 66 Ark. 271, 50 S.W. 511 (1899).

which surface water drained from lands of upper owners would not be grounds for damages if it was the “only practicable method of protecting the lands.” Similarly, Jackson v. Keller⁹⁵ involved a lower proprietor who constructed a dam or levee across low “swaggy” places to protect his property from water he claimed the upper proprietor had collected in drainage ditches and sent to the lower land at greater volume than the natural drainage system provided. The court indicated that the upper proprietor had no right to concentrate the water and “throw it by ditches with greater force and volume than it otherwise would have gone.” And, while the lower proprietor had a duty to control the water that came upon his land in natural flow by ditches instead of by the embankment if he “could have done so at reasonable expense” and if the ditches “could have been made as effectual” as the embankment, he was not liable for doing so in the “only practical method of protecting his land.”

Some uncertainty regarding the application of the Chapman rule when dealing with floodwaters, as opposed to usual runoff from rainfall, arose in McCoy v. Board of Directors of Plum Bayou Levee District.⁹⁶ In McCoy, the court dealt with the question of whether a levee could be constructed across “depressions, swales, and low places” so as to prevent floodwater from a river from entering lowlands. The court also considered whether the landowners between the levee and river should be compensated for any damages resulting from the higher level of water caused by the levee. The court declined to identify the floodwater as surface water but said it was treated as a common enemy which could be defended against without liability “unless injury is unnecessarily inflicted upon another, which by reasonable effort and expense, could be avoided.” In addition to Chapman, the court cited with approval cases from Mississippi, California, and Iowa, which suggested that floodwater should not be treated the same as surface water and that an unqualified common enemy approach would be appropriate.

⁹⁵ 95 Ark. 242, 129 S.W. 296 (1910).

⁹⁶ 95 Ark. 345, 129 S.W. 1097 (1910).

The right to fill to prevent the flow of water from surface water outside urban areas was reaffirmed in Timmons v. Clayton,⁹⁷ subject to the qualification that the lower proprietor acts “in good faith and is free of negligence.” However, the court seemed to regard the same right in an urban area to be close to absolute. The court cited with approval the earlier case of Levy v. Nash,⁹⁸ maintaining that the owner has a right to fill lower property, to elevate it, to construct ditches or otherwise protect it against surface water of an adjoining lot as a “necessary incident to the ownership of such property.” To find to the contrary would, according to the court, “operate against the advancement and progress of cities and towns” and would be “against public policy.” Levy did not qualify the right to deal with surface water in urban areas. However, the court in Timmons seemed to suggest that the test of whether the landowner was acting negligently or in bad faith, should apply to activities in rural settings and, apparently, left the more absolute Levy approach intact for urban lands.

⁹⁷ 222 Ark. 327, 259 S.W.2d 501 (1953).

⁹⁸ 87 Ark. 41, 112 S.W. 173 (1908).

Chapter 9. Navigability questions: Public and private rights to use the stream surface and stream beds

The question of navigability is important in various respects: (1) it will determine the ownership of the stream bed and, thus, the riparian property owner's right to make use of the bed of the stream; (2) it will affect the riparian owner's right to make use of the surface for certain activities; (3) it will determine the public's rights of access to the stream for recreational uses; and (4) it may be relevant to the implementation of regulatory controls affecting either the use of the stream or the stream bed.

During the 1800s, the state legislature frequently designated streams or parts thereof as navigable. However, the determination of navigability for these purposes does not depend on designation by statute or regulation, although such designations would be conclusive. Even in the absence of a specific statute or regulation a court may evaluate the actual navigability of a particular stream for purposes of resolving any specific dispute. The test traditionally applied by courts in Arkansas, as well as in federal courts, was commercial usefulness. In 1822, the Arkansas Supreme Court adopted the criterion that navigability depended on the usefulness of the stream in its natural state as a public highway for carrying products of the fields or forests or transporting articles of commerce to the public.⁹⁹ The test of navigability of a lake is the same as for a stream or river.¹⁰⁰

Navigability for title

The question of navigability determines the riparian landowner's rights to the stream bed. The state owns the stream bed of a navigable stream; the riparian owner's rights extend only to the high water mark—a point indicated by vegetation and the nature of the soil.¹⁰¹ The riparian owner's

⁹⁹ Little Rock, Mississippi River & Texas Railway Co. v. Brooks, 39 Ark. 403 (1882).

¹⁰⁰ McGahhey v. McCollum, 207 Ark. 180, 179 S.W.2d 661 (1944).

¹⁰¹ St. Louis, Iron Mountain & Southern Railway Co. v. Ramsey, 53 Ark. 314, 13 S.W. 931 (1890).

rights end at this mark and any use of the stream bed would be improper. While it is true that riparians may “wharf out” into the navigable stream by constructing piers and wharfs to make use of the surface, the right to do so is not concrete. In fact, the state may restrict this right (because of state ownership of the stream bed) or the federal government may prohibit it (under its power to regulate navigation).

The idea of state ownership of the beds of navigable streams (or lakes) derives from the common law of England. Under the common law, the Crown owned the beds of navigable water below the high water mark or those waters affected by the ebb and flow of the tide. This concept became part of the law of the original colonies and was later extended to newly admitted states. If a body of water was navigable, the state acquired ownership of the bed and banks to the high water mark upon statehood. Thus, if a lake or stream was navigable at the time of statehood, the bed belongs to the state.

The test of navigability for title purpose has been at issue in many cases before the United States Supreme Court. From those decisions it can be concluded that navigability for title purposes is determined by looking at the “natural and ordinary condition” of the waters at the time of statehood, and whether, in fact, they were used for “customary modes of trade or travel on water.” This test is sometimes outlined as waters “susceptible of being used, in their ordinary condition, as highways for commerce.” This suggests that even some smaller streams, if used for commercial trade (e.g., fur traders’ canoes), could meet this test. Navigability in Arkansas dates back to stream conditions when Arkansas entered the Union in 1836.

If the water body is non-navigable, the riparian owner’s rights extend to the middle thread or center of the stream unless the deed by which the property was acquired described the boundaries in some other, more specific way. Some states allow the riparian owners to assert rights to the center of the lake in “pie shaped” parcels. The general rule in Arkansas appears to be that the owners of the lands surrounding a non-navigable lake have title to the bed of the lake which extends to the center

of the lake.¹⁰² This seems to be the case, in particular, where the boundaries were meandered by a United States Government Survey.¹⁰³

Riparian right to use the surface

The riparian owner not only has the right to make reasonable use of the water itself, but also has a similar right to make reasonable use of the surface of the water. This right in non-navigable streams could easily be attributed to ownership of the bed lying underneath the stream or lake. Similarly, the riparian's right to make use of the surface of a navigable waterbody could easily be justified as no different from the right of any other member of the public. However, the individual's status as a riparian owner brings with it rights separate and apart from those of a stream bed owner or a member of the public, and allows riparian owners to use the surface in ways that others cannot. For example, a riparian owner of property along the shore of a non-navigable lake gains rights to use the entire surface of the lake but must share that right with other riparian owners. Some states have addressed these questions by legislation, but Arkansas has no applicable statutes. Of course, rules regarding use may be established by an appropriate agency if the lake is wholly artificial and constructed by that authority (for example, the U.S. Army Corps of Engineers). Again, the issue of navigability may be important to determine the relative rights of the parties.

Public rights to surface use

The right of the public to use the surface of a stream or lake also depends on a navigability test. This test, however, is not necessarily the same test as that applied to determine the question of stream bed ownership. Recreational use of water has led to greater recognition of public rights through a state test of navigability that may extend the concept beyond the traditional "commercial or trade" use.

¹⁰² Rhodes v. Cissel, 82 Ark. 367, 101 S.W. 758 (1907); Little v. Williams, 88 Ark. 37, 113 S.W. 340 (1908); McGahhey v. McCollum, 207 Ark. 180, 179 S.W.2d 66 (1944); Johnson v. Smith, 215 Ark. 247, 219 S.W.2d 926 (1949).

¹⁰³ Glasscock v. National Box Co., 104 Ark. 154, 148 S.W.248 (1912).

In Arkansas, this concept was expanded in the 1980 case of Arkansas v. McIlroy.¹⁰⁴ The evidence introduced in the case showed that the Mulberry River had been used by the public for recreational purposes for many years, including fishing, swimming and canoeing. The court evaluated the “standard” definition of navigability but adopted what might be called the “pleasure boat” definition of navigability—one that bases the public’s right to use a stream on its recreational value, not commercial adaptability in the traditional sense. For this purpose the court suggested that it is not necessary that the stream be floatable at all times; rather, it can be deemed navigable based on its capability during part of the year for use by flat-bottomed boats for fishing or canoes for floating – or both.

Regulatory controls

The federal government, through the commerce clause of the U.S. Constitution, has considerable power related to development activities within watercourses. These include the planning, construction and operation of flood control, irrigation, hydroelectric and water supply projects. The power to regulate interstate commerce is broad and easily encompasses these development activities.

In early cases, the courts focused on the question of whether the particular waterway was navigable as a means of determining whether the activity was within this federal power. The Congressional power to regulate commerce necessarily includes power over navigation. Thus, any exercise of state authority over navigable waters is subject to the overriding jurisdiction of the federal government. However, it is clear that congressional authority over water does not depend solely on the stream’s navigability. The navigation power certainly gives that authority, but “interstate commerce” is much broader than navigation. As a result, more recent interpretations allow the extension of federal regulatory authority to both navigable streams and lakes and their non-

¹⁰⁴ State v. McIlroy, 268 Ark. 227, 595 S.W.2d 659 (1980).

navigable tributaries. Federal reclamation, hydroelectric projects, and federal water pollution control can be justified on grounds broader than navigation regulation.

The federal power may extend to activities on “waters” well beyond those that are navigable. For example, the Clean Water Act’s expansive authority to control water pollution allows the U.S. Army Corps of Engineers to require what are called 404 permits for activities such as “dredging or filling” (e.g., dam construction, filling wetlands) in waters that would, under no definition, be considered navigable such as wetlands.

Chapter 10. Water quality

In 1972, Congress amended the Federal Water Pollution Control Act with an extensive focus on clean water. The sections dealing with control of water pollution were identified as the “Clean Water Act.” Congress approved the Clean Water Act to “restore and maintain the chemical, physical, and biological integrity of the nation’s waters.”¹⁰⁵ The Act, which regulates or prohibits discharge of pollutants into the surface waters of the United States, divides water pollution sources into two general categories: point sources and nonpoint sources.

Point sources discharge to a water body from a particular, identifiable location such as a pipe. Point sources are regulated through the National Pollutant Discharge Elimination System (NPDES), a mandatory permit program. The Act provides that upon EPA approval, a state may administer NPDES permits in a manner no less strict than that provided for by federal regulation. In 1986, the EPA granted to Arkansas the authority to administer its NPDES program. This authority is implemented by programs of the Arkansas Department of Environmental Quality (ADEQ). Arkansas water pollution legislation supplements the federal law, often detailing procedures which are to be followed by ADEQ in carrying out its functions.¹⁰⁶ ADEQ develops pollution limits for Arkansas’s waterways, basing the limits on each waterway’s designated use. ADEQ’s water division permits all sorts of activities, including wastewater treatment, storm water, industrial point source discharges, coal mining, land application of drilling fluids, and animal liquid waste management systems.

Nonpoint source pollution is harder to identify because it consists of natural and human-created pollutants that are picked up by water traveling over or through the ground and are eventually deposited into waterbodies. Examples of nonpoint source pollutants include fertilizers,

¹⁰⁵ Clean Water Act, 33 U.S.C. § 1251 et seq.

¹⁰⁶ See, Arkansas Water and Air Pollution Control Act, 1949 Ark. Acts 472 (as amended and codified at Ark. Code Ann. § 8-4-101 et seq.).

insecticides, herbicides, oil, grease, sediment from improperly managed construction sites, and waste from septic systems. Nonpoint source pollution was not addressed by Congress until 1972.

One of the first goals of the Clean Water Act was to identify areas with substantial water quality control problems so that management plans for those areas could be developed.¹⁰⁷ These plans, also known as “Section 208 plans,” included pollution from nonpoint sources. Congress gave EPA very little enforcement authority and federal funding for Section 208 management plans was abandoned in the 1980s.

The Water Quality Improvement Act of 1987¹⁰⁸ added the Section 319h nonpoint source management program to the Clean Water Act. This section added the following policy statement to the Clean Water Act’s goals and policy provision:

...it is the national policy that programs for the control of nonpoint sources of pollution be developed and implemented in an expeditious manner so as to enable the goals of this chapter to be met through the control of both point and nonpoint sources of pollution.¹⁰⁹

Section 319 does not require states to implement mandatory regulatory controls. Instead, Section 319 provides grant money which supports a wide variety of activities including technical assistance, financial assistance, education, training, technology transfer, demonstration projects, and monitoring to assess the success of specific nonpoint source implementation projects.

In Arkansas, the Arkansas Natural Resources Commission administers the Section 319 Nonpoint Source Management Program. Federal grant money is provided on a matching funds basis under which states must provide forty percent of the funds, and the federal government provides the remaining sixty percent. With the exception of areas designated by the General

¹⁰⁷ 33 U.S.C. § 1288.

¹⁰⁸ Water Quality Act of 1987, Pub. L. No. 100-4, 101 Stat. 7 (1989) (codified at 33 U.S.C. § 1329).

¹⁰⁹ 33 U.S.C. § 1251(a).

Assembly as Nutrient Surplus Areas, the state's nonpoint pollution control program is non-regulatory and focuses on the development of voluntary best management practices.

In 2003, the Arkansas General Assembly assigned ANRC regulatory authority to oversee nutrient management of dry poultry litter. The General Assembly declared counties in western and northwestern Arkansas to have excessive amounts of two nutrients, phosphorus and nitrogen.¹¹⁰ For decades, farmers applied nutrients available from locally abundant poultry litter to crops grown in rocky soil. Parts of the declared areas have also experienced unprecedented growth, becoming one of the fastest growing corridors in the United States. Regardless of how impacts to water quality occurred, the General Assembly has provided ANRC with authority to lessen the impacts and improve water quality.¹¹¹ ANRC programs collect poultry housing information statewide, provide certification for nutrient management planner and nutrient management applicators, and until funds are exhausted, provide up to \$15 of cost share money for transporting litter out of nutrient surplus area watersheds. Within the Nutrient Surplus Areas, persons applying nutrients must follow ANRC rules designed to protect the watershed.¹¹²

¹¹⁰ Ark. Code Ann. § 15-20-1104.

¹¹¹ Ark. Code Ann. §§ 15-20-901 et seq., 15-20-1001 et seq., 15-20-1101 et seq., and 15-20-1201 et seq.

¹¹² ANRC Title 22, Nutrient and Poultry Litter Application and Management Program

Chapter 11. State agencies and political subdivisions concerned with water resources

A number of state agencies and political subdivisions in Arkansas are involved in water resource matters. The authority of each is defined by statute and each develops its own policies or issues its own rules and regulations to implement the legislative mandate.

A. State agencies

Arkansas Natural Resources Commission (ANRC)

The Arkansas Natural Resources Commission (ANRC) has a wide range of responsibilities related to water resource planning and management. ANRC is responsible for preparing the Arkansas Water Plan. As a part of this process, ANRC must evaluate both water supplies and water needs. The agency must make a number of important decisions, including the establishment of minimum streamflows and the determination of whether excess surface water exists. ANRC also issues certificates for the registration of water diverted from streams and, during shortage, can allocate among persons taking water from streams. The agency conducts a ground water usage reporting program and, if it becomes necessary in the future, is authorized to regulate ground water rights within critical ground water areas. This regulatory authority has not been used.

ANRC also issues permits for construction of dams to impound water, coordinates the federal National Flood Insurance Program in Arkansas, and accredits floodplain managers.

ANRC administers various financing programs for water projects under state law. The Commission is authorized to negotiate interstate compacts with adjoining states regarding waters in interstate rivers. ANRC cooperates with local bodies such as levee and drainage districts, irrigation districts, and local soil and water conservation districts. ANRC is actively involved in promoting management plans for the reduction of water pollution from nonpoint sources. The Commission also sponsors, develops and operates mitigation banking programs for aquatic resources, including

wetlands, streams, and deep water aquatic habitats. The Commission also works with private landowners to encourage through tax credits restoration or creation of wetlands and riparian zones.

Arkansas Department of Environmental Quality

The Arkansas Department of Environmental Quality (ADEQ) implements policies set by the Pollution Control and Ecology Commission.¹¹³ ADEQ is the state's delegated authority responsible for implementing the National Pollution Discharge Elimination System (NPDES) program. ADEQ also has responsibilities related to air pollution control, solid waste, and hazardous waste.

The Department develops and enforces surface water quality standards, licenses persons operating and maintaining wastewater systems, issues "no discharge" permits and salt water disposal system permits, and investigates citizen complaints regarding water pollution. While some of this authority derives from the federal Clean Water Act, Arkansas statutes on water pollution control govern many of the procedures to be followed by the Department in carrying out its functions.

Arkansas Waterways Commission

This seven-member commission is composed of two at-large members plus one member from each of Arkansas's five navigable stream basins.¹¹⁴ The purpose of the Commission is to study and coordinate efforts to promote navigable streams for water transportation purposes. A part of that function is to assist other agencies in the coordination of planning any activities which would affect commercial navigation.

Arkansas Water Well Construction Commission

¹¹³ Ark. Code Ann. § 8-1-201 et seq.

¹¹⁴ Ark. Code Ann. § 15-23-201 et seq.

The Arkansas Water Well Construction Commission regulates the development of underground water supplies to provide safe water for public consumption.¹¹⁵ The Commission licenses water well contractors and registers drillers, pump installers, and their apprentices. The seven-member Commission is composed of the Executive Director of the Arkansas Natural Resources Commission, the Director of the Health Department, a representative from the geothermal industry, and a driller member from each of Arkansas's four congressional districts. Investigative and administrative functions are carried out by staff members of the Arkansas Natural Resources Commission.

Arkansas Oil and Gas Commission

The purpose of the Arkansas Oil and Gas Commission is to prevent waste, encourage conservation, and protect the correlative rights of ownership associated with the production of oil, natural gas, brine and associated products.¹¹⁶ One of its purposes is to encourage and aid in the development of plans for gathering, storing, impounding or otherwise disposing of salt water produced in the drilling or operation of wells. Their primary concern related to water resources is to prevent the flow of such water into the streams of the state and to protect the ground water resources of the state.

Arkansas Forestry Commission

The Arkansas Forestry Commission is charged with the development and operation of Arkansas's forestry industry.¹¹⁷ This Commission has the power and authority to acquire and designate land as state forests to be administered, protected and developed for the purpose of

¹¹⁵ Ark. Code Ann. § 17-50-101 et seq.

¹¹⁶ Ark. Code Ann. § 15-71-101 et seq.

¹¹⁷ Ark. Code Ann. §15-21-101 et seq.

watershed protection, erosion and flood control, and recreation, as well as forestation, re-forestation, and the production of forest crops.

Arkansas Geological Survey

Arkansas Geological Survey provides industry, the general public and agencies with information concerning the quantity and quality of water resources, as well as the presence of oil and gas and other mineral resources located within the state.¹¹⁸ This agency works with the United States Geological Survey to conduct regional water resource investigations and supply the state with reports on its findings. Topographic maps, published by the U.S. Geological Commission, may be obtained from the Arkansas Geological Survey.

Arkansas Public Service Commission

This commission has jurisdiction over the rates and services offered by the few private utilities selling water to the public.¹¹⁹ In 2011, the Public Service Commission regulated three drinking water utilities but no sewer utilities. The Commission does not regulate municipal utilities of cities, towns, improvement districts or any other public or quasi-public corporation created or organized under the Constitution or laws of the State of Arkansas. The Commission also does not regulate any facility with less than \$200,000 per year in water or sewer revenues or any facility belonging to a property owners' association, enjoyed only by members of that association. The Arkansas Public Service Commission is also responsible for regulating navigable water crossings by a public service facility, such as an electric power line or a pipe line.¹²⁰

¹¹⁸ Ark. Code Ann. § 15-55-201 et seq.

¹¹⁹ Ark. Code Ann. § 23-4-201 et seq.

¹²⁰ Ark. Code Ann. § 23-3-503.

Arkansas Department of Health

The Arkansas Department of Health administers various programs with county health departments for the safety of the public.¹²¹ The Department tests water to determine safety of drinking water for human consumption and reviews permit applications for some wastewater systems. It also conducts environmental surveillance and monitoring of radioactive materials in water,

Arkansas Game and Fish Commission

Amendment 35 of the Constitution of the State of Arkansas vests control, management, restoration, conservation and regulation of birds, fish, game and wildlife resources, and the administration of the laws pertaining to these resources in the Arkansas State Game and Fish Commission. The Commission also has authority over hatcheries, sanctuaries, refuges, and reservations used for these purposes.

Arkansas Natural Heritage Commission

The Arkansas Natural Heritage Commission exists as a vehicle for the acquisition by gift or purchase of natural areas (“lands, waters, and interests therein”) with special ecological characteristics.¹²² For example, areas of unusual aesthetic or ecological quality along the banks of rivers, lakes, or streams are among the types of areas which might be included in the natural areas system. The Commission inventories such properties and advises other agencies concerning these areas but has no regulatory authority over property not actually acquired for the natural areas system.

¹²¹ Ark. Code Ann. § 20-7-101 et seq.

¹²² Ark. Code Ann. §15-20-305 et seq.

The Arkansas Natural Heritage Commission, also identifies high quality streams in Arkansas, and then works with river landowners to protect these streams. It also works with quorum courts and the state legislature to formulate and adopt adequate protective measures for each stream under consideration for addition to the Arkansas Natural and Scenic Rivers System.

Water Resources Research Center

Arkansas's Water Resources Research Center, located at the University of Arkansas, Fayetteville, administers the state water resources research program. Each state and United States territory has a corresponding institution operating under a federal-state partnership to resolve state and regional water problems. Each center coordinates, conducts, and arranges research to educate water scientists, engineers, technicians, water managers, and the public.

Arkansas-Oklahoma Arkansas River Compact Commission

This Commission¹²³ is composed of representatives of both Arkansas and Oklahoma. This compact provides for an equitable apportionment of the water of the Arkansas River between the States of Arkansas and Oklahoma, provides an entity for the administration of the water apportionment agreed to by the states concerned, describes which state may use specific waters, and promotes the orderly development of the river. The compact also encourages the maintenance of an active pollution abatement program in each of the two states and furthers the reduction of both natural and man-made pollution in the waters of the Arkansas River Basin. In addition, the compact facilitates cooperation between the water administration agencies of Arkansas and Oklahoma in the total development and management of water resources of the Arkansas River Basin.

¹²³ Ark. Code Ann. 15-23-401 et seq.

Red River Compact Commission

This commission includes Arkansas, Oklahoma, Texas, and Louisiana.¹²⁴ The purpose of the Red River Compact is to promote interstate comity and remove causes of controversy between each of the affected states by governing the use, control and distribution of the interstate water of the Red River and its tributaries. It is also intended to provide an equitable apportionment of water among the signatory states by defining reaches or subdivisions of the Red River.

The compact is designed to control and alleviate deterioration of the waters of the Red River Basin. It also provides an active program for the conservation of water, protection of lives and property from floods, improvement of water quality, and development of navigation and regulation of flows in the Red River Basin. It serves as a basis for state or joint state planning and action, because it identifies and apportions each state's share of interstate water in the Red River.

B. Political subdivisions

Conservation districts

Arkansas has 75 conservation districts¹²⁵ with borders approximating county boundaries. Each district was created by local land owners petitioning the Arkansas Natural Resources Commission. These districts were originally created to carry out preventive and control measures for flooding and to conserve, develop, and use soil and water resources. Conservation districts work with ANRC, U.S. Department of Agriculture, and land owners within the district.

¹²⁴ Ark. Code Ann. § 15-23-501 et seq.

¹²⁵ Ark. Code Ann. § 14-125-101 et seq.

Regional water distribution districts

Regional Water Distribution Districts are public, nonprofit organizations created to furnish water.¹²⁶ These districts are discussed in greater detail in Chapter 7.

Irrigation, drainage and watershed improvement districts

Irrigation, drainage and watershed improvement districts are created by circuit court order.¹²⁷ These districts are discussed in greater detail in Chapter 7.

Levee districts

Historically, some parts of our state are subject to overflow from flood waters. Levee districts have been created to combat these problems through special acts of the General Assembly or pursuant to statutory law.¹²⁸ These districts provide for the construction of a levee or a system of levees for the protection of lands from overflowing streams, rivers and tributaries.

Each levee district board is composed of three elected directors. If land lies within two or more counties and is subject to overflow from the same river, and can be protected by the same levee or system of levees, several districts may consolidate into one district for the whole region, with the approval of the respective county judges.

Levee districts may assess taxes against benefited lands and may acquire land by condemnation if necessary. If necessary, a levee district may cooperate with any similar district in another state to complete and maintain a system of levees.

¹²⁶ Ark. Code Ann. § 14-116-101 et seq.

¹²⁷ Ark Code Ann. § 14-117-101 et seq.

¹²⁸ Ark. Code Ann. § 14-123-201 et seq.

Deferred maintenance, imposition of stringent new federal requirements, and inadequate money to perform repairs maintenance are some of the challenges Arkansas currently faces regarding its levee systems.

Drainage districts

Drainage districts are created to plan and construct a system of drainage for landowners in the district.¹²⁹ Districts may issue bonds, assess benefits upon lands within the district, levy taxes, condemn property, and secure aid from the federal government and other agencies.

Even though some drainage districts in Arkansas may be formed by special act, these districts are usually created by the circuit court where the land is within a single district or wholly within one county. If the boundary of a proposed drainage district crosses county lines, the circuit court of the county wherein the largest portion of the land lies is the proper court to form the district. The governing body of such a district is composed of three commissioners appointed by the court wherein it was created.

Combination levee and drainage districts

Levee and drainage districts may combine into one district to prevent duplication of work and decrease expenses.¹³⁰ In constructing flood control work, the levee districts, drainage districts or levee and drainage districts, or federal agencies may exercise the right of eminent domain through condemnation proceedings under the laws of the United States and the State of Arkansas, even though the districts must make proper compensation for the lands taken in order to complete said districts.¹³¹

¹²⁹ Ark. Code Ann. § 14-117-401 et seq.

¹³⁰ Ark. Code Ann. § 14-120-310.

¹³¹ Ark. Code Ann. § 14-120-306.

Improvement districts for rivers and tributaries

When Congress enacts any law adopting and authorizing a project for the improvement of any river, tributary, or stream bordering Arkansas, an improvement district within the area embraced by the project may be established by petitioning the circuit court having jurisdiction of the area involved.¹³² When created, a district has all the rights, powers and privileges of drainage districts. However, the district is limited to the purposes of complying with the requirements made of the local interest of drainage, levee or flood control projects, which are approved or authorized by the Congress of the United States and constructed by a federal agency in the district. The Interstate Watershed Cooperation Act extended the authority for the improvement district for rivers and tributaries and should be consulted.¹³³

Metropolitan port authorities

A metropolitan port authority may be created by any municipality or county or any combination of one or more municipalities in one or more counties, when they lie within or near a navigable watercourse.¹³⁴ These authorities develop and maintain harbors, ports, river-rail terminals, barge terminals, and industrial parks. In order to organize and establish a metropolitan port authority, the circuit court must be petitioned and an order issued.

¹³² Ark. Code Ann. § 14-118-101 et seq.

¹³³ Ark Code Ann. § 14-115-101 et seq.

¹³⁴ Ark. Code Ann. § 14-185-101 et seq.

Conclusion

Generally, water law changes very slowly. However, one can anticipate a few potential alterations in the near future. Beginning in 2011, the Arkansas Natural Resources Commission will begin a comprehensive update of the Arkansas Water Plan. The planning process will update our understanding of water resource challenges in the years ahead and will provide direction to state agencies carrying out state water policy.

Federal law and regulation, such as Total Maximum Daily Load (TMDL) implementation, will increasingly drive the allocation of efforts and financial resources. Likewise, actions of sister states through regulation in the form of water quality standards and litigation will help determine where we spend our time, effort, and money.

New water needs from developing industries, such as the natural gas drilling in the Fayetteville Shale Play will require novel responses by state government.

As always, the State will continue to pursue conservation, education, and the efficient use of surface water to ensure an abundant supply of clean water in a healthy environment for all.