



State Attorneys General Powers and Responsibilities

Edited by
Emily Myers
National Association of Attorneys General



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NATIONAL ASSOCIATION OF ATTORNEYS GENERAL

Courtesy Chapter

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*This book is dedicated to Attorneys General
and the men and women who work for them in the
56 jurisdictions. They continue to make an important
contribution to state government and the American legal
system. Without them, there would be no book to write.*

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This book is a collaborative effort, in which different authors with expertise in each substantive area contribute their time and talent. The principal authors are noted on each chapter, but we would like to thank them again here for their hard work and dedication. Many thanks to the following authors:

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CHAPTER 10

Water Resources

By Clive Strong, former Chief, Natural Resources Division, Office of the Idaho Attorney General

As counsel for state agencies charged with administration of water allocation and water quality programs, attorneys general often speak for their states on water resource issues. In this capacity, the attorneys general represent state interests in water resource disputes with the federal government, Indian tribes, local agencies, and private individuals. Additionally, attorneys general act in their public interest capacity as *parens patriae* in equitable apportionment actions in the U.S. Supreme Court. The attorneys general also draft agreements and prepare proposed legislation to resolve conflicts over water resources.

In the arid west, water resource allocation has a dramatic impact on public and private interests from an economic, social and demographic perspective. An attorney general's involvement in resolving water allocation disputes has profound public impact and consequently commands significant staff and financial resources.

Until recently, eastern states were largely immune from water allocation disputes. As a result of climate variability and increasing water supply demands, however, attorneys generals in Eastern states are increasingly confronted with water allocation conflicts that rival those in western states. Georgia, Alabama, and Florida, for example, have engaged in litigation over the use of the water in the Apalachicola-Chattahoochee-Flint River Basin that "relate[s] to the Corps' authority to operate the Buford Dam and Lake Lanier, the reservoir it created, for local water supply."¹

Most state water quality programs implement federally approved water quality standards under the Clean Water Act.² Thus, water quality issues tend

1 *In re MDL 1824 Tri-State Water Rights Litig.*, 644 F.3d 1160, 1165 (11th Cir. 2011).

2 *See* 33 U.S.C. §§ 1251-1387.

to be a shared concern of all states. Attorneys general, as counsel for state agencies, are often at the center of federalism questions arising under the delegated federal programs. For example, several attorneys general have grappled with jurisdictional issues related to the delegation of federal water quality programs to federally recognized Indian tribes.³

LEGAL AUTHORITY

State

The federal government has long recognized the states as the primary regulators of all waters within their boundaries.⁴ The primary role of state water law was established in cases involving states in the arid west, where establishment of state water rights systems was essential to settlement of the land. The Supreme Court summarized the federal deference to state water law as follows:

The history of the relationship between the Federal Government and the States in the reclamation of the arid lands of the Western States is both long and involved, but through it runs the consistent thread of purposeful and continued deference to state water law by Congress.⁵

Alaska, Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming regulate water use solely under the prior appropriation doctrine, which is a sophisticated system for allocating water among competing users during times of scarcity. In large part, this doctrine is a creature of statutory law within each state. The doctrine is premised on the ideas that (1) the right to use water arises not from the ownership of land but rather from the commitment of water to a beneficial use; (2) the extent of the right is measured by beneficial use; (3) the earlier the date upon which a water right was established the better the right in times of shortage; and (4) an appropriative right may be lost as a result of nonuse through prescription, abandonment, or forfeiture.

Almost all states bordering on or east of the Mississippi River follow the riparian doctrine, which is rooted in common law. The riparian doctrine gives the

3 See 33 U.S.C. § 1377; *Wisconsin v. EPA*, 266 F.3d 741 (7th Cir. 2001); *Wyoming v. EPA*, 849 F.3d 861 (2017).

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

5 *California v. United States*, 438 U.S. 645, 653 (1978).

owner of land bordering a stream the right to make reasonable use of the water of the adjacent stream. This right exists irrespective of actual use and is exercisable at any time on the riparian land.

California, Kansas, Mississippi, Nebraska, North Dakota, Oklahoma, Oregon, South Dakota, Texas, and Washington, recognize both riparian water rights and the prior appropriation doctrine. Although such states recognize the riparian doctrine, the prior appropriation doctrine governs most of the water rights within these states.⁶

Federal

The chief source of federal power over water resources is the Commerce Clause of the Constitution, Article I, Section 8, Clause 3, which gives rise to two related powers to regulate water: (1) the federal navigation interest or “servitude” whereby the national government may prevent encroachments on navigable waters,⁷ and (2) the general affirmative power to regulate all matters affecting interstate commerce. Navigational servitude is essentially a negative or dormant power because its aim is to prevent obstructions to commerce, not to assert a more pervasive federal interest in the allocation and use of navigable waters.

Other important U.S. constitutional provisions affecting federal authority over water resources include Article IV, Section 3, Clause 2, which provides the legal basis for federal reserved water rights, and Article 1, Section 8, Clause 1, the Spending Clause, which provides a measure of federal control over the use of water from federal reclamation projects.

PRACTICAL CONSIDERATIONS FOR ATTORNEYS GENERAL

Public Policy Role

In the area of water resource management, litigation over the right to use public waters often results in the attorney general being at the forefront of water policy developments. For example, the Idaho attorney general, in litigating cases involving disputes between surface and ground water users, had to advocate a policy position on behalf of the state reconciling two core principles of the prior appropriation doctrine—priority of right versus beneficial use of the resource.⁸

6 In some states, ground water is allocated under a different system than surface water.

7 See *United States v. Rio Grande Dam & Irrigation Co.*, *supra*.

8 *Idaho Ground Water Assoc. v. Idaho Department of Water Resources*, 369 P.3d 897, 910

This balancing of competing policy objectives also occurs in the context of consumptive uses versus preservation of flows for instream uses. Some states have sought to reconcile this conflict through use of the public trust doctrine, while others have done so through existing common law and statutory public interest provisions in state water codes.

National interests and state prerogatives are often at issue in water management; both types of concerns must be considered and balanced. For example, in *Ivanhoe Irrigation District v. McCracken*,⁹ the California attorney general took the position that federal reclamation law limiting the availability of federal water to farm lands not exceeding 160 acres preempted California laws containing no acreage limitation. The attorney general reasoned that the national policy in favor of small farms superseded California's interest in maintaining large corporate farms. Many years later, in *California v. United States*,¹⁰ the California attorney general took the position that, where a federal dam threatened to destroy important local environmental values protected by state law, state environmental laws should apply to the federal project. In each case, the attorney general consistently adhered to the view that state laws should apply to federal projects unless the state policy is inconsistent with important, overriding national goals spelled out in federal reclamation laws. The Supreme Court agreed with the attorney general's formulation, upholding that position in both cases and declaring that state laws apply to the federal projects unless the local laws are inconsistent with "clear congressional directives."

Because of the importance of water to economic development and environmental quality, water allocation inevitably has significant social and environmental impacts that must be considered in developing legal positions on water allocation issues.

Attorney General Office Organization

Structurally, the attorneys general handle water issues in a variety of ways. Some attorneys general, who essentially serve as in-house counsel to water agencies, may assign a deputy to work exclusively with a water agency. This is the case in Idaho where the attorney general provides all legal services for the Idaho Department of Water Resources. In other states, the attorney general will act primarily as litigation counsel rather than as in-house counsel. For example, the

(Idaho 2016) ("The prior appropriation doctrine sanctifies priority of right, but subject to limitations imposed by beneficial use.")

9 357 U.S. 275 (1958).

10 438 U.S. 645 (1977).

California State Water Resources Control Board and the California Department of Water Resources have their own in-house counsel for day-to-day legal matters. The California attorney general, however, represents these agencies in all litigation matters, whether the agencies are plaintiffs or defendants.

EMERGING ISSUES

Preemption

Although Congress has consistently reaffirmed its policy of deferring to state water law through express savings clauses in federal statutes, the U.S. Supreme Court, at times, has more narrowly construed these savings provisions. In *First Iowa Hydro-Electric Cooperative v. Federal Power Commission*,¹¹ the Court held that the Federal Energy Regulatory Commission has virtually exclusive regulatory authority over hydropower projects. In *California v. United States*,¹² however, the Supreme Court appeared to reverse the preemption approach followed in *First Iowa* by holding that, on the basis of a savings provision in the federal reclamation laws, states have broad water rights authority over federal reclamation projects. In *California*, the Court ruled that Section 8 of the Reclamation Act authorized California to impose conditions on the federal project to the extent that these conditions were not inconsistent with “clear congressional directives.” To the surprise of many, the Supreme Court in *California v. FERC*,¹³ relying heavily upon *stare decisis*, appeared to retreat somewhat from its prior interpretation of Section 21 of the Federal Power Act in *California v. United States*. The Court in *California v. FERC* held that a state cannot require a hydropower licensee to meet significantly higher minimum flow release requirements than those imposed by FERC because it “would disturb and conflict with” the balance embodied in the federal agency’s determination.¹⁴ In 1994, the Court, in *PUD No. 1 of Jefferson County v. Washington Department of Ecology*,¹⁵ however, narrowed the holding in *California v. FERC*. The Court held that Washington could impose a minimum flow requirement on a hydropower project as a condition of its Section 401 water quality certification under the Clean Water Act.

11 328 U.S. 152 (1946).

12 438 U.S. 645, 669 (1978).

13 495 U.S. 490 (1990).

14 *Id.* at 506.

15 511 U.S. 700 (1994).

Outside the context of the Federal Power Act, *California v. United States* has potentially far-reaching consequences for the state/federal relationship in the regulation of water.

[T]he Court's savings clause analysis affirms the states' ability to assimilate federal reclamation projects into their overall water distribution systems by conditioning allocations to those projects, at least to the extent that their conditions are not inconsistent with explicit Congressional directives concerning the projects.¹⁶

The Court's view of the state/federal relationship envisions dual regulatory authority, with meaningful participation by both state and federal entities. Moreover, the Supreme Court decisions continue to recognize that state water law controls with respect to allocation of water for consumptive uses such as irrigation.

The issue of federal preemption of state water law also often arises in the context of implementation of federal environmental statutes such as the Endangered Species Act ("ESA")¹⁷ and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 ("CERCLA").¹⁸

The clash between the ESA and state water law has generated significant political, economic and social consternation. The Klamath federal reclamation project is a poster child for the clash between state and federal law. Stretching across southern Oregon and northern California, the Klamath Project relies on storage in the shallow Upper Klamath Lake. The Project supplies water for wildlife refuges and for irrigation of project lands. For nearly a century the Klamath Project delivered irrigation water that sustained a \$300-million agricultural economy in the Klamath Basin. Beginning in the 1990s, the United States, in order to protect ESA listed species and tribal fishing rights, curtailed irrigation deliveries from Upper Klamath Lake to meet minimum lake levels. By the drought of 2001 the Bureau of Reclamation (BOR) released no water from the Upper Klamath Lake for irrigation of the Klamath Project lands, affecting 1400 farms and over 200,000 acres.¹⁹ Farmers were outraged, viewing the federal government's actions

16 Whittaker, *The Federal Power Act and Hydropower Development: Rediscovering State Regulatory Powers and Responsibilities*, 10 Harv. Envtl. L. Rev. 169 (1986).

17 16 U.S.C. §§ 1531 – 1599.

18 42 U.S.C. §§ 9601 – 9675.

19 An environmental group challenged the BOR's compliance with the ESA in 2000, leading a federal district court to enjoin the BOR from releasing any contract water for irrigation. *Pacific*

as preferring fish over people and as breaking long-standing promises via contracts to provide water for agriculture. Some individuals even unlawfully opened water control gates. After years of fighting, the BOR obtained approval under the ESA of its 10-year operating plan for irrigation deliveries, and affected interests agreed to support the 2010 Klamath Basin Restoration Agreement, which addresses fish and wildlife concerns.

The Edwards Aquifer in Texas is another example of the clash between the ESA and state law. The Edwards Aquifer is the main water supply for over two million people and serves the domestic, livestock, irrigation, industrial, municipal, and recreational needs of the area. It is also home to a number of species listed under the ESA. Declining spring flows as a result of ground water depletions led the Sierra Club to file a lawsuit under the ESA in 1990. In 1993 the Texas Legislature enacted the Edwards Aquifer Act creating a comprehensive scheme to control and manage the use of the aquifer. When the Sierra Club sought to enjoin the City of San Antonio and others from depleting the aquifer, the Fifth Circuit grappled with its role in the context of competing federal and state regulations.²⁰

Another emerging issue is the need for a state water right to implement CERCLA remediation plans. These plans often require clean-up of contaminated water through the extraction and containment of surface and ground water. Most states, however, require a license or permit for the diversion and use of water. Federal agencies typically assert that CERCLA trumps the requirement for a state water right.

Federal Reserved Water Rights

When Congress reserves public lands, it may reserve water to fulfill the purpose of the reservation.²¹ “The existence or absence of a reserved water right is a matter of federal law.”²² In determining whether a federal reserved water right exists, a court will examine whether the act or executive order creating the reservation contains an express reservation of water, and, if not, whether Congress or the executive intended to reserve unappropriated water.²³ An implied reserved

Coast Fed’n of Fishermen’s Ass’ns v. U.S. Bureau of Rec., 138 F. Supp. 2d 1228 (N.D. Cal. 2001).

20 See *Sierra Club v. Glickman*, 156 F.3d 606 (5th Cir. 1998); *Sierra Club v. San Antonio*, 112 F.3d 789 (5th Cir. 1997); *Sierra Club v. Babbitt*, 81 F.3d 155 (5th Cir. 1995).

21 While most federal reserved water rights arise by implication, Congress sometimes expressly reserves water. An example of an express reservation of water is Section 13(c) of the *Wild and Scenic Rivers Act*, 16 U.S.C. § 1271.

22 *United States v. Idaho*, 23 P.3d 117, 122 (Idaho 2001).

23 *Id.* at 123. Whether the implied reserved water right doctrine is a rule of law or a rule of statutory construction is the subject of debate. Fereday, *What is the Federal Reserved Water Rights*

water right will be found to exist only if the primary purposes of the reservation will be entirely defeated in the absence of a water right.²⁴

The reserved rights doctrine is a continuing source of friction between the states and the federal government because unquantified federal rights cast substantial uncertainty over state water resource plans and allocations. Without action by the federal government, the only mechanism available to a state to quantify federal reserved water rights is through a general stream adjudication that complies with the requirements of the McCarran Amendment. This amendment permits a state to join the United States in a state court adjudication that encompasses all water rights of a river system or other sources.²⁵ These types of proceedings, however, involve an enormous number of parties, are extremely expensive, and often take decades to complete. The Snake River Basin Adjudication in Idaho, for example, involved the adjudication of more than 158,000 water rights and took twenty-seven years to complete. The State administrative and judicial costs alone totaled more than \$94 million.²⁶ Thus, as a practical matter, a general adjudication may not be a viable means for some states to quantify federal reserved water rights.

The quantification of federal reserved water right presents a significant challenge. Although the Supreme Court applied a “practicable irrigable acreage” test in *Arizona v. California*,²⁷ for Indian reservations whose primary purpose is agriculture, there is no established methodology for quantify federal reserved water rights for reservations created for other purposes. Consequently, claims for instream flows and other purposes are generally quantified through negotiated settlements.²⁸ See Chapter 13, Indian Law, for further discussion on Indian reserved rights and related issues.

Another emerging issue is administration of federal water rights. Under the McCarran Amendment, the United States Congress consented to state

Doctrine, Really?, 52 Idaho L. Rev. 341 (2016); Blumm, *Federal Reserved Water Rights as a Rule of Law*, 52 Idaho 369 (2016).

24 In *United States v. New Mexico*, 438 U.S. 696 (1978), the Supreme Court limited the uncertainty caused by implied federal reserved rights by holding that such rights exist only for “primary” purposes for which lands are withdrawn from the public domain, not for “secondary” reservation purposes.

25 43 U.S.C. § 666.

26 Vonde et al., *Understanding the Snake River Basin Adjudication*, 52 Idaho L. Rev. 53 (2016).

27 373 U.S. 546 (1963).

28 The United States Wild and Scenic River water rights were resolved through a negotiated settlement. Settlements typically provide protection for existing uses and in some instances provide for some future development.

administration of federal water rights. The scope of this consent, however, is largely untested and likely will be the subject of future litigation as water supplies throughout the United States diminish.²⁹

Public Interest Limitations on Water Resources

In recent years, state water rights administration has undergone a dramatic transformation. The prior appropriation and riparian doctrines were originally intended as means to establish private rights to use water. State administrative and judicial authorities generally determined whether sufficient unappropriated water was available to support a claimed right and then established priority among competing users based on applicable state law. As the available water supply has diminished, however, and as public awareness of the environment has increased, state water rights authorities have begun to pay closer attention to environmental concerns both in granting water rights and in supervising their exercise. The authority of states to consider such concerns is found both in statutes requiring state water rights authorities to consider “public interest” factors in granting and supervising water rights, and in judicial decisions upholding the right of the state water rights authorities to act broadly on behalf of important public concerns.³⁰ These cases suggest that at least in some states the “beneficial use” concept, which underlies the prior appropriation doctrine, may authorize state reconsideration of past water rights decisions in light of modern public needs.

The trend toward consideration of public interest factors is exemplified in Idaho, where the legislature provided that an applicant for a water right must demonstrate the proposed use will not conflict with the local public interest, where the local public interest is defined as the interests that the people in the area directly affected by a proposed use have in the effects of such use on the public water resource.³¹ The Idaho Supreme Court interpreted “local public interest” prior to the statutory definition being modified in 2003 to include all locally important factors, including economic benefits and detriments, conservation, public health, aesthetic and environmental considerations, and effect

29 C. Strong and S. Strack, *The McCarran Amendment is Alive and Well*, ABA Water Law Trends, Policies, and Practice 164 (1995).

30 *United States v. State Water Resources Control Bd.*, 182 Cal. App. 3d 82 (1986), in which the California First District Court of Appeals, relying on California’s “public interest” statutes, upheld the authority of the State Water Resources Control Board to regulate beneficial uses of water to protect the water quality of San Francisco Bay and the Sacramento San Joaquin Delta. *See also Imperial Irrigation Dist. v. State Water Resources Control Bd.*, 186 Cal. App. 3d 1160 (1986).

31 IDAHO CODE §§ 42-203A(5) and 42-202B(3).

upon fish and wildlife.³² The court also placed an affirmative duty on the state to reassess the public interest in light of local needs. The 2003 statutory amendment now limits the issues to be considered to those having an effect on the public water resource.

The public trust doctrine is an example of another water-related legal principle that has changed. Under traditional public trust doctrine, the states hold navigable waters and the beds beneath navigable waterways in trust for the people. Accordingly, as trustee, the state must preserve public trust resources for the benefit of certain preferred uses such as navigation, fisheries, and commerce.³³ This doctrine has been expanded in some jurisdictions to protect fish and wildlife habitat, recreation, aesthetics, and water quality.³⁴ The courts in some states also have invoked the public trust doctrine as a basis for holding that state water administrators have the right, and indeed the obligation, to reconsider past water allocation decisions in light of modern public needs. Any state grant of a property right in public trust land is subject to regulation and even complete defeasance if necessary to protect the public trust uses.

The public trust doctrine as articulated in *National Audubon Society v. Superior Court of Alpine County*³⁵ has had two important impacts on water law in some states. First, it requires state water administrators to take public trust values into account before granting new water rights. Second, it authorizes continuing state supervision of private rights in public trust resources. Other states have limited the scope of the public trust doctrine as applied to water rights by statute.³⁶

Water Marketing

As the federal government has reduced the funding of water projects, reallocation of existing water resources through marketing arrangements may be necessary to protect in-stream flows and water quality standards and to

32 *Shokal v. Dunn*, 707 P.2d 441 (Idaho 1985).

33 *Illinois Central Railroad v. Illinois*, 146 U.S. 387 (1892).

34 *District of Columbia v. Air Florida, Inc.*, 750 F.2d 1077, 1083 (D.C. Cir. 1984); *United Plainsmen Ass'n v. North Dakota State Water Conservation Comm'n*, 247 N.W.2d 457 (N.D. 1976); *In the Matter of Water Use Permit Applications*, 9 P.3d 409 (Haw. 2000).

35 658 P.2d 709 (Cal. 1983), *cert. den.*, 464 U.S. 977 (1983). The court remanded the case to the California Water Rights Agency to determine whether the City of Los Angeles should modify its water rights in light of the public trust interest.

36 *Idaho Conservation League, Inc. v. State (In re SRBA - Case No. 39576)*, 911 P.2d 748 (Idaho 1995) (public trust doctrine not at issue in the adjudication proceeding because not an element of a water right used to determine the priority of rights in relation to competing claims); IDAHO CODE § 58-1203(2)(b) providing that the public trust doctrine shall not apply to the appropriation or use of water in Idaho.

accommodate new uses. Marketing in this context means one water user “sells” or “rents” its rights to another. One conceptual problem with this approach is that under the prior appropriation doctrine, a water right can be lost if the holder of the right fails to put it to “beneficial” use. Therefore, if a water right holder “sells” or “rents” the right, the holder does not use it, and thus potentially could lose it. Some states, for example, California, have attempted to overcome this problem by providing that in some situations a water right cannot be lost where it is “marketed” to another. Idaho provides by statute that “[a] water right shall not be lost or forfeited by a failure of the owner to divert and apply the water to beneficial use” while the water right is placed in the water supply bank.³⁷

While water marketing provides a mechanism for addressing emerging water supply needs, changes in how a water right is used often has consequences for other water users. For example, a change in a water right is exercised may impact downstream users that rely on the return flow, may lead to impacts on a local economy and in some instances lead to speculation. Consequently, states typically impose significant limitations on water marketing to protect private rights and the public interest.

Interstate Conflicts

Conflicts between states over the allocation of water or transboundary watercourses are resolved either through an interstate compact, an equitable apportionment lawsuit, or by congressional apportionment. Attorneys general have an important role in these proceedings. As counsel to the states, the attorneys general ask the courts to establish policies respecting allocation of water or to shape existing policies through interpretation of compacts and federal statutes. Such conflicts are often resolved in the U.S. Supreme Court, which has original jurisdiction over interstate disputes.³⁸

A U.S. Supreme Court decision interpreting the Yellowstone River Compact highlights the “sensitive nature” of these interstate disputes.³⁹ Montana alleged that Wyoming breached the Compact by allowing pre-1950 appropriators to switch from flood irrigation to more efficient sprinkler methods thereby decreasing the return flows upon which Montana’s appropriators relied. Because

37 IDAHO CODE § 42-223.

38 See U.S. CONST., art. III, § 2, cl. 2; 28 U.S.C. § 1251(a); *Kansas v. Colorado*, 514 U.S. 673 (1995); *Colorado v. New Mexico*, 459 U.S. 176 (1982).

39 *Montana v. Wyoming*, 131 S. Ct. 1765, 1773 (2011). The Court specifically noted, “Our decision is not intended to restrict the States’ determination of their respective appropriation doctrines.” *Id.* at 1773 n.5.

the Compact referenced principles of the prior appropriation doctrine, the Court found itself immersed in unresolved questions of state common law even though it readily acknowledged such questions should be answered by the “highest court of each State.”⁴⁰ The Court interpreted Wyoming and Montana water law as permitting appropriators to improve their irrigation systems, even to the detriment of downstream appropriators, and therefore found that Montana had failed to state a claim for breach of the Compact. This case points out the inherent legal risks in pursuing an original action before the United States Supreme Court.

The financial stakes in interstate apportionment cases can be quite high. For example, in 2011 Kansas brought an original action against Nebraska in the U.S. Supreme Court alleging among other things that Nebraska violated the Republican River Compact by allowing the unimpeded development of hydraulically connected ground water.⁴¹ In addition to being compensated for its actual damages of \$3.7 million, Kansas asserted that Nebraska should be required to disgorge the benefit it received from breaching the Compact. In 2014, the Court upheld the Special Master’s finding that Nebraska knowingly failed to comply with the Compact and adopted the Special Master’s recommendation that Nebraska disgorge \$1.8 million in benefits it obtained from breaching the Compact. The Court stated it had the power to order disgorgement of gains, “if needed to stabilize a compact and deter future breaches. . . .”⁴²

Ground Water Depletion

The most significant water resource concern of this century is likely to be the decline in ground water supplies. Half of the nation’s population depends on ground water for domestic uses; thus, it is no surprise that in many areas ground water is being depleted faster than it can be replenished. One of the most striking examples of this concern is the Ogallala Aquifer, one of the world’s largest aquifers, which spans portions of Wyoming, South Dakota, Nebraska, Colorado, Kansas, New Mexico, Oklahoma, and Texas. The Ogallala Aquifer rests below the “breadbasket” of America, supplying about 30% of the nation’s ground water used for irrigation and more than 80% of the drinking water to the more than 2 million people who live within the aquifer’s boundary. Increased pumping and development activities have slowed an already-glacial recharge rate. At present rates, some worry the aquifer could dry up within twenty-five years.

40 *Id.* at 1773 n.5.

41 *See Kansas v. Nebraska*, 563 U.S. 915 (2011) (seeking enforcement of a prior settlement between Kansas and Nebraska regarding the Republican River Compact).

42 *Kansas v. Nebraska*, 135 S. Ct. 1042, 1057 (2015).

Ground water is particularly vulnerable to increased population growth and competing demands from industry, irrigation, stock water, and municipal uses arising from that growth. In some areas, like the Southwest, ground water is the sole source of water for new development. Over use of ground water leads to not only lowering of the water table, but also may trigger subsidence, permanent reduction in aquifer storage capacity, saltwater intrusion, influx of pollutants, ecosystem imbalance, loss of wetlands, and/or harm to endangered or threatened species. Growing population and corresponding increased development coupled with pressures to keep water instream for recreation, fisheries, wildlife habitat, and aesthetics ensures the demand will continue. While the problem of declining ground water supplies is well known, solving the problem is complicated by overlapping state and federal regulatory schemes.

In most states ground water and surface water is allocated under separate systems. The ground water allocation systems generally fall into one of four groups: 1) rule of capture; 2) reasonable use doctrine; 3) correlative rights; or 4) prior appropriation. The reason separate allocation systems exist is largely attributable to the fact that until recently little was known about the movement of ground water and how its development affects surface water sources. As the demand for ground water increases and the impact of those depletions on surface water sources has become more apparent, states are being forced to address the administration of hydraulically connected ground and surface water sources. In Idaho, for example, the Idaho Supreme Court held that hydraulically connected ground water and surface water must be managed conjunctively.⁴³

The trend in ground water management is toward enactment of sustainable use legislation. California, for example, enacted the Sustainable Groundwater Management Act of 2014. This act requires the formation of local ground water sustainability agencies to assess local ground water supplies and to adopt local ground water management plans.

⁴³ *Idaho Ground Water Association v. Idaho Department of Water Resources*, 369 P.3d 897 (2016).