

OKLAHOMA WATER LAW

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This paper will address the two different types of water – surface water and groundwater – in the context of three basic aspects of water law: (1) discharge permits, (2) water quality standards, and (3) water rights (water use or allocation). The paper begins with a review of the basic federal discharge permit program for surface water, which is the Clean Water Act, implemented in Oklahoma through the Oklahoma Pollutant Discharge Elimination System (“OPDES”), under the jurisdiction of the Oklahoma Department of Environmental Quality (“DEQ”). It then explores federal and Oklahoma water quality, water rights, wetland, and groundwater issues. However, water rights, including water use permits for surface water and groundwater, are the province of the Oklahoma Water Resources Board (“OWRB”). The OWRB also develops Oklahoma’s water quality standards for both surface water and groundwater. The water quality standards, in turn, are important factors in discharge permitting. Therefore, DEQ and OWRB have significant roles, in some ways intertwined, with respect to water law and water issues in Oklahoma.

A. CLEAN WATER ACT

The federal Clean Water Act requires that individual “point sources” that discharge pollutants to a “water of the United States” obtain a permit that regulates the discharge by requiring (a) the use of “best” technology through the imposition of effluent limitations, and (b) no violation of applicable water quality standards. In 1996, Oklahoma received delegation from EPA to administer the Clean Water Act program through the OPDES act, 27A OS 2-6-201 *et seq.* The majority of the following discussion will refer to the federal Clean Water Act, which is generally followed in Oklahoma.

1. History.

The history of the Clean Water Act includes: (i) the Refuse Act (circa 1899), which focused on protecting navigation values; the Water Quality Act (circa 1965), which focused on state action; the Water Quality Improvement Act (circa 1970), which focused on oil spills and recreational boat sewage; the Nixon Administration, which started using the Refuse Act to regulate industrial discharges through permitting requirements; the Clean Water Act (technically referred to as the Federal Water Pollution Control Act) (circa 1972); and the Clean Water Act Amendments (circa 1977).

2. Goals. The statutory objective and goals of the Clean Water act include:

(i) “To restore and maintain the chemical, physical, and biological integrity of the Nation’s waters,” 33 U.S.C. § 1251(a);

(ii) Eliminate discharges of pollutants into navigable waters by 1985, 33 U.S.C. § 1251(a)(1) [obviously, this goal has never been met, and in fact, the Clean Water Act authorizes discharges subject to effluent limits];

(iii) Wherever attainable, an interim goal of water quality that provides for the protection and propagation of fish, shellfish, and wildlife, and provides for recreation in and on the water to be achieved by July 1, 1983, 33 U.S.C. § 1251(a)(2);

(iv) Prohibition of discharges of toxic pollutants in toxic amounts, 33 U.S.C. § 1251(a)(3);

(v) Development and implementation of programs for the control of nonpoint sources of pollution, 33 U.S.C. § 1251(a)(7);

(vi) Preservation of State rights and responsibilities to regulate discharges into waters and allocate quantities of waters within each State’s jurisdiction, 33 U.S.C. § 1251(b), (g).

3. Components. The main regulatory elements of the CWA are the (i) National Pollutant Discharge Elimination System (“NPDES”) permit program; (ii) water quality standards, and (iii) governmental and private party enforcement.

4. Regulators. The following entities are involved in regulation under the Clean Water Act. First, EPA is the permitting agency for most pollutants under the

NPDES permit program, the agency responsible for oversight of State administration of delegated NPDES programs, including water quality standards and total maximum daily loads (“TMDLs”), and the agency which creates technology-based effluent (discharge) limitations. Second, the U.S. Army Corps of Engineers (“Corps”) has responsibility to issue permits for discharges of dredged or fill material (wetlands and other waters of the United States). Third, the individual States can be delegated responsibility for administration of much of the CWA, such as permitting, establishing water quality standards, determining impaired waters, and setting TMDLs. Fourth, Indian tribes can seek treatment as a State (“TAS”) and thereafter serve State water functions.

5. Geographic and Operational Coverage of the CWA.

The CWA contains several critical provisions and definitions, beginning with the statement that “... the ***discharge of any pollutant*** by any person shall be unlawful.” 33 U.S.C. § 1311(a) (emphasis added). In turn, “Discharge of a pollutant,” is defined to mean: “(A) any ***addition*** of any ***pollutant*** to ***navigable waters*** from any ***point source***. . . .” 33 U.S.C. § 1362(12) (emphasis added).

In turn, “Navigable Waters” is defined by the CWA as “the waters of the United States, including the territorial seas.” 33 U.S.C. § 1362(7). As implemented, this definition extends beyond waters that are actually navigable in fact. EPA’s regulations, 40 C.F.R. § 122.2 (2004), broadly define waters of the United States to include:

1. Waters, used in the past, or susceptible to use in interstate or foreign commerce, including those subject to tides;
2. Interstate waters, including interstate wetlands;
3. Waters the degradation of which would affect interstate or foreign commerce;
 - a. Used by interstate or foreign travelers for recreation or other projects;
 - b. From which fish or shellfish can be taken and sold into interstate or foreign commerce;
 - c. Used by industries in interstate commerce;
 - d. Waters that are or may be used as habitat for migratory birds.

i. *U.S. v. Wilson*, 133 F.3d 251 (4th Cir. 1988) (a connection to interstate commerce must be demonstrated).

ii. *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers*, 531 U.S. 159 (2001) (isolated waters are not covered by the CWA because migratory birds land there).

4. Impoundments of water otherwise defined as waters of the United States;
5. Tributaries of the above;
6. Territorial seas; and
7. Wetlands adjacent to identified waters.

Under the OPDES Act, Oklahoma’s jurisdiction extends to “waters of the state,” which are defined as: “all streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, irrigation systems, drainage systems, storm sewers and all other bodies or accumulations of water, surface and underground, natural or artificial, public or private, which are contained within, flow through, or border upon this state or any portion thereof, and shall include under all circumstances the waters of the United States which are contained within the boundaries of, flow through or border upon this state or any portion thereof.” 27A OS 2-1-102(15). As can be seen, the definition of waters of the state includes waters of the United States, as well as groundwater.

“**Pollutant.**” The definition of pollutant is also very important. “Pollutant” “[M]eans dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water. 33 U.S.C. § 1362(6).

“Point Source.” “[M]eans any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. **This term does not include agricultural stormwater discharges and return flows from irrigated agriculture.**” 33 U.S.C. § 1362(14) (emphasis added).

“Addition.” Pollutants must be introduced “from the outside world.” *NWF v. Gorsuch*, 693 F.2d 156 (D.C.Cir. 1982); *NWF v. Consumers Power Co.*, 862 F.2d 580 (6th Cir. 1988). *Dubois v. United States Dep’t of Agriculture*, 102 F.3d 1273 (1st Cir. 1996) (transfer of polluted water from river to a pond is an “addition” of pollutants). *Catskill Mountains Chapter of Trout Unlimited, Inc. v. City of New York*, 273 F.3d 481 (2d Cir. 2001) (transfer of polluted water from one body to another is an “addition” of pollutants). *Borden Ranch Partnership v. United States Army Corps of Engineers*, 537 U.S. 99 (2002) (deep plowing in wetland that only moved materials around within the area triggered CWA jurisdiction). *South Florida Water Management District v. Miccosukee Tribe of Indians*, 124 S.Ct. 1537 (2004) (vacating and remanding the 11th Circuit’s decision that pumping pollutants from one waterbody to a second waterbody into which the pollutants would not naturally flow constitutes the addition of a pollutant).

6. NPDES Permit Program.

The basic CWA permitting program is known as the “National Pollutant Discharge Elimination System” or NPDES program. 33 U.S.C. § 1342. NPDES permits fulfill two fundamental functions: (1) establish specific performance levels and limitations on discharges; and (2) requires monitoring and reporting regarding permit compliance. NPDES permits include controls reflecting application of technology-based requirements and any more stringent controls needed to meet WATER QUALITY STANDARDS.

EPA has promulgated technology-based permit conditions on a national basis through rulemaking for many industrial categories and subcategories. These are typically based on effluent discharge guidelines pursuant to which EPA creates daily maximum and daily average limitations for a pollutant typically discharged by an industrial category or subcategory. Where a facility is not covered by the national rule, technology-based conditions are established based upon on “best professional judgment.” The various types of technology that may be required under the CWA include:

(1) BAT – (“Best Available Technology Economically Achievable”) – national standards reflecting the best performers in industrial categories, taking into account costs,

some economic disruption anticipated. No requirement of cost/benefit test – if technologically feasible and economically achievable, it must be employed. May be based on actual operating plants, pilot studies, or bench scale studies.

(2) BCT – (“Best Conventional Pollutant Control Technology”) – BCT is set with a complex “cost reasonableness test.”

(3) NSPS – (“New Source Performance Standards”) – Set by reference to Best Available Developed Technology (“BADT”) and reflect the greatest degree of effluent reduction achievable with the best available demonstrated technology.

7. OPDES Permit Program

In Oklahoma, the delegated NPDES program is referred to as the OPDES program, or Oklahoma Pollutant Discharge Elimination System. *See* 27A OS 2-6-201 *et seq.*; OAC 252:606 (Oklahoma Pollutant Discharge Elimination System Standards. The OPDES requires discharge permits and sets the standards for discharges of wastewater by facilities to waters of the state. Of particular interest, agricultural and oil and gas activities are generally not subject to OPDES requirements. 27A OS 2-6-201.

8. Water Quality Standards

Water quality standards are the foundation of the water quality-based control program mandated by the Clean Water Act. 33 U.S.C. § 1313. The CWA requires states to establish water quality standards. Water quality standards define the goals for a waterbody by designating its uses, setting criteria to protect those uses, and establishing provisions to protect water quality from pollutants. A water quality standard consists of four basic elements:

(1) designated uses of the water body (e.g., recreation, water supply, aquatic life, agriculture). In designating uses, a state must take into consideration the water quality standards of downstream waters. *Arkansas v. Oklahoma*, 503 U.S. 91 (1992); *Albuquerque v. Browner*, 97 F.3d 415 (10th Cir. 1996).

(2) water quality criteria to protect designated uses (numeric pollutant concentrations, express specific levels of pollutants allowed, and narrative requirements,

such as general statements describing waterway characteristics, e.g., “absence of objectionable odor.”),

(3) an antidegradation policy to maintain and protect existing uses and high quality waters, and

(4) general policies addressing implementation issues (e.g., low flows, variances, mixing zones).

EPA must approve state-adopted standards within 60 days, or disapprove within 90 days. If EPA disapproves a state standard, EPA must promptly promulgate replacement federal standards, and EPA may also promulgate federal standards whenever it determines it necessary to meet the requirements of the Act. States must review their water quality standards every three years.

9. Monitoring and Reporting.

Under the CWA, permittees are generally required to self-monitor and report their activities. Discharge permits specify the pollutants to be monitored, when, where, and how samples will be taken, and how samples will be analyzed. Permittees are then generally required to submit monitoring results on “Discharge Monitoring Report” (“DMR”) forms. Noncompliance that endangers health or the environment must be reported within 24 hours. Other noncompliance shall be reported during the regular timeframe for submission of monitoring reports. DMRs are public records, can be inspected by citizen groups, and will show the occasions on which a discharger has violated its effluent limitations (exceedances).

10. TMDLs. Total Maximum Daily Loads specify the maximum pollutant loading which can be contained in the water without violating water quality standards. 40 C.F.R. § 130.7(c). The TMDL program includes wasteload allocations for point sources that are enforceable through limitations in NPDES permits and load allocation for nonpoint sources, which are not federally enforceable. EPA must approve or disapprove TMDLs within 30 days, and establish TMDLs where it disapproves the state TMDL. Recent litigation has led to judicial obligations under consent decrees and court orders requiring EPA to establish TMDLs where states fail to do so.

11. Storm Water. One of the most common water-related permits is the storm water permit. For example, storm water runoff from many construction activities is regulated because it can have a significant impact on water quality. As storm water flows over a construction site, it picks up pollutants like sediment, debris, and chemicals. Polluted storm water runoff can harm or kill fish and other wildlife. Sedimentation can destroy aquatic habitat and high volumes of runoff can cause stream bank erosion.

Historically, EPA required a storm water permit for discharges associated with construction activities that disturbed or planned to disturb 5 or more acres. However, in 2003 the regulations changed so that a storm water permit is now required for construction activity, including clearing, grading, and excavation, that results in the disturbance of one or more acres of total land area, or smaller sites that are part of a larger common plan of development or sale. For example, if you are building a house on a half-acre lot in a 10-acre development, you need permit coverage. See http://www.epa.gov/npdes/pubs/sw_cgp_brochure.pdf.

The changed regulations are implemented in Oklahoma by General Permit OKR10, which can be found on the ODEQ web site at http://www.deq.state.ok.us/WQDnew/stormwater/construction/okr10_final_permit_13_sep_2002.pdf. This document provides complete information about what is necessary to obtain the storm water general permit. See also <http://www.deq.state.ok.us/WQDnew/stormwater/index.html>.

The storm water general permit requires the applicant to submit a Notice of Intent (NOI) for coverage. However, before doing so, the conditions of the general permit require the applicant to prepare a “Storm Water Pollution Prevention Plan,” commonly referred to as a SWPPP or SWP3. The SWP3 is a plan for controlling storm water runoff from a construction site. It is broader and more complicated than a typical erosion and sediment control plan. The SWP3 does not have to be submitted with the NOI to obtain permit coverage, but the plan must be available on-site for review during inspection. Because every site is unique, every SWP3 is unique. The SWP3 needs to be updated as work progresses.

Basic SWP3 principles require operators of construction sites to: divert storm water away from disturbed or exposed areas of the construction site, install BMPs (best management practices) to control erosion and sediment and manage storm water, inspect the site regularly and properly maintain BMPs, especially after rainstorms, revise the SWP3 as site conditions change during construction and improve the SWP3 if BMPs are not effectively controlling erosion and sediment, minimize exposure of bare soils to precipitation to the extent practicable, and keep the construction site clean by putting trash in trash cans, keeping storage bins covered, and sweeping up excess sediment on roads and other impervious surfaces.

The storm water general permit for construction applies to all storm water discharges in Oklahoma except those that are not under the authority of the ODEQ, which are activities associated with oil and gas exploration, drilling, operations, and pipelines and point source discharges associated with agricultural production, services, and silviculture. There is also a storm water general permit for storm water discharges associated with certain specified industrial activities. This type of permit would be required by an industrial facility once it goes into operation.

12. Wetlands.

Even though there aren't as many wetlands in Oklahoma as some other states, there still is a need for a general understanding of wetland issues because the risk of failing to identify wetlands and comply with regulations governing them is too great. The two basic rules are that (1) you need a permit (individual, nationwide, or general) to develop in wetlands, and (2) you can't necessarily tell whether an area is a wetland without a delineation by a trained professional. In addition, as a condition of a permit for larger tracts of wetlands, landowners are more likely these days to be required to "mitigate" for impacts by agreeing to create or restore an equivalent amount of wetlands elsewhere.

In general, wetlands are considered "waters of the United States" under the federal Clean Water Act, 33 U.S.C. 1251 *et seq.*, and are regulated by the U.S. Army Corps of Engineers pursuant to implementing regulations at 33 C.F.R. Part 323. EPA has

policy-making and supervisory authority over wetland regulation, but day-to-day regulation is done by the Corps. In Oklahoma, the Corps office to contact is the Tulsa District office. Their web site is <http://www.swt.usace.army.mil/>. Although some states have enacted their own wetland regulations in recent years for areas considered “isolated” wetlands, Oklahoma is not one of them. Thus, landowners can expect to work directly with the Corps on most wetland issues.

There is no legal restriction against owning wetlands, or buying and selling them. However, in general they cannot be altered without a permit. The specific language is that a landowner cannot discharge “dredge or fill” material in waters of the United States without a permit. Clean Water Act Section 404(a); 33 U.S.C. 1344. The meaning of the discharge of dredge or fill material is more complicated than it might seem, has been interpreted by many cases, and has been the subject of clarifying rules changes in the last few years. *See, e.g.*, 67 Fed. Reg. 31129 (May 9, 2002) (Final Revisions to the Clean Water Act Regulatory Definitions of “Fill Material” and “Discharge of Fill Material”). Generally, however, any grading or excavation, or placement of material, in a wetland may be sufficient to constitute a “dredge or fill” activity subject to regulation. In contrast, driving through a wetland without altering it, or spanning a wetland (e.g., with a power line) without altering it would not trigger the requirement for a permit.

The problem with identifying wetlands is that there does not have to be constant standing water. An area can be a wetland year-round even if visibly wet only a few weeks of the year. Wetlands are defined as “areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.” 33 C.F.R. 328.3(b). Usually, an area that may be a wetland must be delineated by an environmental consultant using the Corps’ 1987 Wetlands Delineation Manual. The investigator looks for indicators such as hydric soils and hydrophytic (water-loving) vegetation. Vegetation can indicate a wetland even if the minimum time for saturation in the root zone is 5-12.5% of the growing season. Depending on the case, the Tulsa District office may provide personnel to perform or

review wetland delineations. The delineation process is commonly referred to as determining whether there are any “jurisdictional” wetlands on site, i.e., wetlands subject to regulation under the Clean Water Act.

There are many issues relating to the scope of wetland jurisdiction under the Clean Water Act. The definition of “waters of the United States” in the Clean Water Act is very broad, including not just navigable rivers, but tributaries to navigable rivers such as perennial and even intermittent streams, all waters the use and development of which could affect interstate commerce, and all wetlands adjacent to such waters. 33 C.F.R. 328.3(a)(3). Among other things, wetlands that are artificially created by man, such as areas that become wetlands over time due to the impoundment of water from grading and installing a berm, are considered jurisdictional wetlands.

Over the years, numerous cases have been brought by landowners and others challenging the scope of wetland regulation. In a landmark case several years ago, the U.S. Supreme Court pulled back on the Corps’ authority to regulate “isolated” wetlands, such as areas containing water not hydrologically connected to a navigable river but visited by migratory birds. *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers (SWANCC)*, 531 U.S. 159 (2001). As a result of the now-famous *SWANCC* decision, the Corps is more careful about asserting jurisdiction over remote wetlands, but decisions are case-specific. In addition, some states (not Oklahoma) have passed legislation to protect isolated wetlands. In any case, it would be a mistake to conclude without investigation that a wetland with no apparent relationship to other waters cannot still be a jurisdictional wetland. Many factors, including whether the wetland is above the 100-year or 500-year floodplain, or the path of drainage to the nearest creek, must be evaluated.

Fortunately, many development activities in or affecting wetlands can be authorized under the Corps’ “nationwide permit” program. 33 CFR Part 330; http://www.usace.army.mil/inet/functions/cw/cecwo/reg/nationwide_permits.htm. The nationwide permit program consists of more than 36 categories of activities, such as “utility line construction, maintenance, and repair,” (NWP No. 12) that are considered

pre-authorized provided the landowner complies with standard conditions set forth in Corps regulations. In some cases, the landowner must file a pre-discharge notification (PDN) with the Corps. Landowners can contact an environmental attorney or the Tulsa District office directly for more information and guidance regarding whether a planned activity in a wetland qualifies for a nationwide permit. There are also general permits in various Corps Districts for additional minor activities in wetlands.

If a nationwide or general permit is not applicable, then an individual permit will be required from the Corps for development in a wetland. Obtaining an individual permit is more time-consuming and difficult, and can involve more extensive mitigation requirements to effectively “replace” the impacted wetlands in the same watershed.

Development in a wetland without a permit (whether the landowner knew the area was a wetland or not) can expose the violator to civil and criminal liability, with fines up to \$25,000 per day of violation. An example of such a case is *U.S. v. Wilson*, 133 F.3d 251 (4th Cir. 1997), where the president of Interstate General Co., a Maryland real estate development company, was found criminally liable for violating the Clean Water Act by draining and developing low-lying areas that constituted wetlands. The original case was followed by a post-conviction challenge after *SWANCC* that did not provide significant relief. *U.S. v. Interstate General Co.*, 152 F.Supp.2d 843 (D.Md. 2001).

13. Nonpoint Sources. The CWA only contains a planning provision for diffuse surface water runoff, referred to as nonpoint source pollution. Section 319, 33 USC 1329, requires states to develop reports and programs that identify nonpoint sources of pollution and plans for controlling such pollution. EPA is required to approve or disapprove state reports and plans, with approved states being eligible for federal grants to carry out nonpoint source control programs.

14. Enforcement. EPA can enforce against any person discharging without a permit, violating a permit, failing to provide information, etc. EPA can bring civil or criminal actions in federal court, or can issue administrative orders to stop the violation and/or assess penalties. Civil penalties can involve up to \$25,000 per day per violation considering several factors, including the seriousness of the violation, the economic

benefit (if any) resulting from the violation, the history of such violations, good faith efforts to comply with the applicable requirements, economic impact of the penalty on the violator, and such other matters as justice may require.

Private Party Enforcement – The “Citizen Suit.” Pursuant to 33 U.S.C. § 1365, a “citizen suit” may be brought against any person alleged to be in violation of the CWA or the EPA Administrator for failure to perform nondiscretionary duty. Citizen suits are intended to supplement governmental action, not supplant governmental action. In the event that EPA or a state has commenced and is diligently prosecuting an action, a citizen suit may not proceed. No citizen suit jurisdiction for wholly past violations; must make a “good faith allegation of an ongoing violation.” Gwaltney of Smithfield v. Chesapeake Bay Found., 484 U.S. 49 (1987). A 60-day notice of intent to file suit is a jurisdictional prerequisite failing which the court must dismiss the suit.

B. WATER QUALITY ISSUES

One of the most important functions of the Oklahoma Water Resources Board (“OWRB”) is to develop and implement the Oklahoma water quality standards, which are found at OAC 785:45; <http://www.owrb.state.ok.us/>. The Oklahoma water quality standards contain standards for both surface water and groundwater.

The Oklahoma water quality standards are a set of rules adopted by Oklahoma in accordance with the federal Clean Water Act to identify and protect designated beneficial uses of waters of the State. The currently recognized beneficial uses for some or all of the waters in Oklahoma include (1) public and private water supply, (2) fish and wildlife propagation, (3) agriculture, (4) hydropower, (5) municipal and industrial process and cooling water, (6) primary body contact recreation (swimming), (6) secondary body contact recreation (boating or fishing), (7) navigation, and (8) aesthetics.

In order to ascertain the condition of individual waters, determine appropriate present and future beneficial uses, and set realistic standards to protect them, the OWRB obtains physical, chemical, and biological data on Oklahoma’s rivers, streams, and lakes. Then, the OWRB sets science-based narrative and numerical criteria to ensure attainment of beneficial uses. For water bodies that have quality greater than that required to protect

beneficial uses, such as Scenic Rivers, some municipal water supply lakes, and water possessing critical habitat for endangered species, the water quality standards include an anti-degradation policy statement that provides more stringent protection and is designed to keep stream water quality from declining in these areas.

The Board also promulgates water quality standards implementation rules. OAC 785: 46. Implementation rules provide a bridge between water quality standards and water quality management by providing consistent application of numeric and narrative criteria. The water quality standards Implementation rules contain Use Support Assessment Protocols (USAP) for Oklahoma waterbodies. Developed in coordination with all Oklahoma environmental agencies, the USAP establish a consistent and scientific decision methodology for determining whether a waterbody's beneficial uses are being supported, outlining minimum data requirements for that decision methodology.

1. Surface Water Quality

The Oklahoma water quality standards specify narrative and numerical criteria ("criteria") to protect designated beneficial uses for listed and unlisted waters of the State. Listed waters (approximately 27,000 stream and river miles and 650,000 lake surface acres) are identified in OAC 785:45, Appendix A, together with their designated beneficial uses. The criteria for beneficial use designations for listed and unlisted waters are specified in OAC 785:45, Subchapter 5.

OAC 785:45-5-3 establishes default designations for beneficial uses for unlisted surface waters. For surface waters, excluding lakes, the following beneficial uses are designated: (A) Agriculture: livestock and irrigation (see 785:45-5-13), (B) Industrial and Municipal Process and Cooling Water (see 785:45-5-15), (C) Aesthetics (see 785:45-5-19), (D) The Warm Water Aquatic Community subcategory of the beneficial use classification Fish and Wildlife Propagation (see 785:45-5-12(c)), and (E) Primary Body Contact Recreation (see 785:45-5-16).

For lakes, including those listed in Appendix A, the following beneficial uses are designated: (A) The Warm Water Aquatic Community subcategory of the beneficial use classification Fish and Wildlife Propagation (see 785:45-5-12(c)); (B) Agriculture (see

785:45-5-13); (C) Industrial and Municipal Process and Cooling Water (see 785:45-5-15); (D) Primary Body Contact Recreation (see 785:45-5-16); and (E) Aesthetics (see 785:45-5-19).

The general narrative criteria which apply to all beneficial uses in all waters, listed and unlisted, include the following provisions:

(a) Minerals. Increased mineralization from elements such as, but not limited to, calcium, magnesium, sodium, and their associated anions, shall not impair any beneficial use;

(b) Solids (suspended and/or settleable). The surface waters of the state shall be maintained so as to be essentially free of floating debris, bottom deposits, scum, foam and other materials, including suspended substances of a persistent nature, from other than natural sources;

(c) Taste and Odor. Taste and odor producing substances from other than natural origin shall not interfere with the production of a potable water supply by modern treatment methods or produce abnormal flavors, colors, tastes and odors in fish flesh or other edible wildlife, or result in offensive odors in the vicinity of the water, or otherwise impair any beneficial use; and

(d) Nutrients. Nutrients from point source discharges or other sources shall not cause excessive growth of periphyton, phytoplankton, or aquatic macrophyte communities which impairs any existing or designated beneficial use. OAC 785:45-5-9.

In addition to the general criteria, there are specific narrative and/or numeric criteria for each beneficial use. For example, under one of the most common beneficial uses, Fish and Wildlife Propagation, there are narrative and/or numeric criteria for each of the following conditions or pollutants: (1) dissolved oxygen, (2) temperature, (3) pH, (4) oil and grease, (5) biological criteria, (6) toxic substances, and (7) turbidity. OAC 785:45-5-12(f).

Of particular interest for rural water issues, there are narrative and numeric criteria for the designated beneficial use of agriculture: livestock and irrigation. OAC 785:45-5-13. These criteria include: “(a) The surface waters of the State shall be

maintained so that toxicity does not inhibit continued ingestion by livestock or irrigation of crops, (b) highly saline water should be used with best management practices as outlined in "Diagnosis and Reclamation of Saline Soils," United States Department of Agriculture Handbook No. 60 (1958); and (c) Guidelines for suitability of water quality for livestock and irrigation purposes are provided in Appendix C of this Chapter.”

2. Groundwater

Subchapter 7 of OAC 785:45 establishes groundwater quality standards. The purposes of the groundwater quality standards are to protect beneficial uses and classifications of groundwater, prevent degradation of existing quality of groundwater, and provide minimum standards for remediation of polluted groundwater. OAC 785:45-7-1.

Under the groundwater quality standards, groundwater is classified in one of four classes: (1) Class I – Special Source Groundwater, where exceptional water quality exists, where there is an irreplaceable source of water, or where the groundwater is ecologically important; (2) Class II – General Use Groundwater, which is groundwater capable of being used as a drinking water supply with no treatment or conventional treatment and which have a mean concentration of Total Dissolved Solids less than 3,000 mg/l; (3) Class III – Limited Use Groundwater, which is groundwater with poor quality; and (4) Class IV – Highly Mineralized Treatable Groundwater.

The groundwater quality standards then list various beneficial uses of groundwater and designate certain beneficial uses for certain classifications of groundwater. For example, the beneficial use designation of Agriculture refers to that groundwater which is or could be used for irrigation or livestock watering. As another example, the beneficial use designation for Class I and II groundwater not identified in Appendix H (which at this time is reserved) is Public and Private Water Supply, Agriculture, and Industrial and Municipal Process and Cooling Water. As one more example, the beneficial use for groundwater used for domestic purposes which has a mean concentration of less than 3000 mg/l TDS and has not been determined by any state

environmental agency to be not suitable for human consumption, is Public and Private Water Supply. OAC 785:45-7-3(b).

The criteria for protection of groundwater quality are a combination of narrative and numeric criteria. OAC 785:45-7-2(a). Generally, the narrative criteria require that groundwater shall be maintained to prevent alteration of its chemical properties by harmful substances not naturally found in groundwater. The numeric criteria require that the concentration of any synthetic substance or any substance not naturally occurring in a location shall not exceed the “PQL” (Practical Quantitation Limit) in an unpolluted groundwater sample using lab technology. The PQL is basically the detection limit for a particular substance in the lab. If the concentration in a test sample exceeds the PQL, or other substances in the groundwater are found in concentrations greater than background, the groundwater shall be deemed polluted and corrective action may be required. Corrective action shall consist of restoring groundwater to a quality that will support the beneficial uses designated in OAC 785:45-7-3, or as otherwise specified in a site-specific remediation plan approved by the agency with jurisdiction. OAC 785:45-7-2(b).

C. WATER RIGHTS IN SURFACE WATER

1. Oklahoma Water Appropriation Law. Under Oklahoma law and Oklahoma Water Resources Board (OWRB) Rules, water can be appropriated from a stream by the first beneficial user. The governing law is found at Title 82, Oklahoma Statutes, §§ 105 et seq. and 1085.2. The OWRB Rules are found at OAC Title 785, Chapter 20, “Appropriation and Use of Stream Water.”

The controlling principle in Oklahoma is “beneficial use.” “Beneficial use shall be the basis, the measure and the limit of the right to the use of water...” 12 OS 105.2. To appropriate stream water, an applicant must obtain a permit from the OWRB by satisfying the following conditions:

1. Unappropriated water must be available in the amount applied for;
2. The applicant must have a present or future need for the water and the use to which [the] applicant intends to put the water must be a beneficial use; and

3. The proposed use must not interfere with domestic or existing appropriate uses....

82 OS 105.12; OAC 785:20-5-4. (If the application is for the transportation of water for use outside the stream system wherein the water originates, additional provisions apply. See discussion below.)

Beneficial uses include municipal, industrial, agricultural, irrigation, recreation, and fish and wildlife. OAC 785:20-1-2; 785:20-1-5. The OWRB is allowed broad discretion in determining whether there is a beneficial use. “In making this determination [that the applicant has a present or future need for the water and the use to which applicant intends to put the water is a beneficial use], the Board shall consider the availability of all stream water sources and such other relevant matters as the Board deems appropriate, and may consider the availability of groundwater as an alternative source.” 82 OS 105.12; OAC 785:20-5-4(a)(2)(emphasis added).

There are several different classes of permits available. A regular permit authorizes the holder to appropriate water on a year round basis and in an amount and from a source approved by the OWRB. OAC 785:20-7-1. Although a right to appropriate stream water under an OWRB permit is technically a right in real property, it is different in nature from the ownership of land. The subject of the right is the use of the water, not the water itself. Robert H. Anderson, *The Conveyance of Water Rights*, 50 Okla. Bar J. 2711 (1979). The right, or part of it, can be lost, if the user fails to put the water that has been appropriated to him under a permit to beneficial use.

2. Loss of Water Rights. A permit to appropriate stream water grants a valuable right to the holder. The only ways that the right to appropriate water can be lost are by failing to comply with any material term, limitation, condition or restriction provided in the permit, or by failing to beneficially use the water. OAC 785:20-9-3(b)(1), (3).

The “use it or lose it” rule, which is simple to apply, may result in the forfeiture or reduction of water rights. A regular permit must require that the whole of the amount of the water be put to beneficial use within a period of no less than 7 years. 12 OS 105.16;

OAC 785:20 9 2. However, if the applicant presents evidence showing it cannot use the total amount within 7 years, then the OWRB may provide in the permit a “schedule of use”—a schedule of the time within which certain percentages of the total amount to be authorized must be put to beneficial use. If the amount of water authorized is not put to beneficial use as provided by the permit, including any schedule of use, the amount not used is forfeited by the holder of the permit and such water becomes public water, again available for appropriation. 82 OS 105.17; OAC 785:20 9 3. For a permit containing a schedule of use, the amount lost in any increment is subtracted from the total authorized amount under the permit, and the amounts for any remaining increments are adjusted based on the percentages of water required to be used by each of the time intervals in the schedule of use.

Under the “use it or lose it rule,” then, a water right can really only vest for 7 years, and only if the amount of water being used is maintained. If a user takes X amount of water in year 1 but does not take X amount again at least once in the ensuing 7 years, the user’s total right will be reduced to the largest amount taken during those 7 years. Even if a schedule of use increment is initially met, the amount of that increment can still be lost if the level of use is not maintained over the following 7 years.

Although opportunity for notice and a hearing is required before a water right can be cancelled or reduced, OAC 785:20 9 3(d), the rules also provide that the OWRB’s failure to determine that a right to use water has been lost in whole or in part for nonuse shall not in any way revive or continue the right. 12 OS 105.18; OAC 785:20 9 3(g).

3. Amending a Schedule of Use. Once granted, a schedule of use may be amended at the discretion of the OWRB, but only for “good cause.” OAC 785:20 9 4(c)(3). In general, good cause means “there must be a change or a proposed change of condition relied upon to utilize the water which will promote the optimal beneficial use of water in the state.” OAC 785:20 9 4(c)(4)(emphasis added). A schedule of use shall not be added to any permit to extend the time for using amounts of water which have vested; no lapsed use date can be extended pursuant to this provision.

4. Sale of Water Rights (Transfer Techniques)

Under 12 OS 105.24 and OAC 785:20 9 4(f), the assignment or transfer of an appropriation permit is authorized: “Any permit to appropriate water may be assigned....” However, no assignment shall be binding, except on the parties, unless filed for record with the OWRB. In addition, notice by the transferee and payment of a fee are required. While the assignment provisions appear relatively uncomplicated, there are several important additional considerations not evident on their face, as discussed further below.

OWRB will allow transfers of water rights, combined with amendments to the seller’s schedule of use, subject to certain conditions. Generally, there are two potential approaches to the sale or transfer of water rights. The first is a simple sub-lease of water by contract. In such a transaction, it would be necessary to amend the permit, but only to add a second purpose of “commercial sale.” The seller would remain the permit holder with its current total water right and schedule of use intact.

The second potential approach is a contract for sale coupled with a “split permit,” where a partial water right would actually be transferred to the buyer, while the seller retained whatever portion of the existing water right that it needed. Typically, a buyer who is making a substantial investment will want a “split permit” rather than a sub-lease in order to obtain the security of holding its own water right approved by the government. The value to the buyer is that it does not have to rely on enforcement of a purely contract right to maintain its access to water.

To obtain a “split permit,” either of the parties can apply separately to the OWRB, or they can both apply jointly. A joint application would include a petition to amend existing water rights, to request a transfer of water rights to the buyer, and to amend the existing permit to adjust the schedule of use. The buyer could propose its own schedule of use, or simply take the standard 7-year period. The permit would eventually be reissued as Permit No. ____A (for the seller) and ____B (for the buyer), but the appropriation date and priority would remain the same for both seller and the buyer.

The most important issue in the OWRB “split permit” review process would be whether the buyer has a beneficial use for the water. Procedurally, public notice,

comment and a hearing would be necessary. The outcome could be dependent on whether the proposed new use is a controversial one, or the relative weight of the policies discussed earlier. OWRB would again have wide discretion to determine whether the proposed use was beneficial.

As previously noted, the OWRB rules authorize amendments when they will promote the optimal beneficial use of the water. If there is no current need for the seller's surplus water, there is no compelling argument that the beneficial use of the water would be jeopardized by allowing an amendment to the schedule of use. Although it appears that OWRB could argue that "sale" is not one of the authorized purposes for water appropriation under OAC 785:20-1-5, and thus cannot be a beneficial use, such a position would contradict OWRB policy as applied in other cases. Moreover, the statutes explicitly sanction changing the purpose of a stream water permit. 82 OS 105.23 provides that "[a]ny appropriator of water . . . may use the same for other than the purposes for which it was appropriated . . ." by following the procedures in 82 OS 105.22, which require application to OWRB, notice and a hearing. The statutes do not prescribe the standards that are to be used in ruling on the application. Although OWRB could argue that its rules are entitled to deference, the seller would have the counter-argument that 82 OS 105.23 in combination with 82 OS 105.24 (providing that any permit may be assigned) shows legislative intent to allow changing the purpose to "sale." The safeguard for the public is that the buyer must have a beneficial use or forfeit the water.

Proposed Sale of Water to Other States. The State of Oklahoma and Southeastern Oklahoma Indian Tribes want to "productively" use surplus water in Southeastern Oklahoma. Several years ago, the State became interested in selling surplus water from the Kiamichi River basin to a large user such as a water district in order to raise revenue to repay the \$40 million the State owes the U.S. Army Corps of Engineers for the Sardis Reservoir project. In fact, the State was sued by the Corps for that debt. The Indian Tribes are also interested in selling surplus water to earn money for infrastructure and other economic development that would benefit them. The Tribes lay

claim to the Kiamichi River basin water as part of their claim to lands in Southeastern Oklahoma. Although other Western States such as Montana have become embroiled in disputes with Indian Tribes over claims to water, Oklahoma's plan has been to negotiate a "compact" that would avoid lengthy litigation.

As part of the State's attempt to sort out the competing claims and interests in the Kiamichi River Basin, in May 1999, the House enacted House Concurrent Resolution (HCR) No. 1066. HCR 1066 required the OWRB to develop a Kiamichi River basin water resources development plan, and submit it to the Legislature by February 1, 2000. As part of the efforts to develop the required plan, local interests and Choctaw and Chickasaw Tribe representatives agreed to extend the HCR 1066 principles for the Kiamichi River basin to the lower basin region, which includes Hugo Lake.

HCR 1066 provided that the present and future needs for water by Oklahomans from the Kiamichi River basin shall be considered the highest priority. HCR 1066, Section 1.A.5. However, several options for selling water out-of-basin were under consideration. One option being considered was selling water to Oklahoma City and surrounding towns. Another was selling water to Northern Texas. In 1991, the State actually negotiated a plan to sell the North Texas Municipal Water District up to 130 million gallons a day from Sardis Lake, but the idea fizzled, in part because of the tribal claims.

In May 2002, in response to growing concern about proposed sales of surface water and groundwater out-of-state, Senate Bill 1410 was enacted. This legislation imposes a three-year moratorium on out-of-state sales or exportation of large volumes of water originating in Oklahoma. The ban applies to out-of-state bulk sales of Oklahoma surface water and subterranean groundwater. No state agency, board, commission, committee, department, authority, trust or other political subdivision such as a municipality or county, nor any elected or appointed officer or member of any governing body, can sell or export Oklahoma water without the consent of the Legislature, SB 1410 specifies. Exempt from the limitation are beverages, processed or manufactured products, "products transported in cans, bottles, packages, kegs or barrels," as well as water

“contained in agricultural crops, animal and dairy products...” Also exempt are out-of-state sales or exportation of water in quantities that do not exceed eight million gallons per month (approximately one-quarter-million gallons per day).

SB 1410 also imposes a moratorium for the next three years on any state or tribal compact or any intergovernmental cooperative agreement “drafted in whole or in part to apportion” ownership of Oklahoma lake or stream water or groundwater, “or authorize or otherwise implement any sale or exportation ... outside this state” of Oklahoma surface water or groundwater.

Senate Bill also creates a Joint Committee on Water Planning “to study, investigate, examine and analyze issues relating to a comprehensive statewide water study and plan...” Senate Bill 1410 instructs the panel to solicit advice from the U.S. Army Corps of Engineers, the federal Bureau of Reclamation, the Natural Resources Conservation Service, the U.S. Geological Survey, the U.S. Fish and Wildlife Service, and other appropriate federal agencies, as well as representatives of state agencies involved in tourism, environmental quality, parks, fish and wildlife, recreation, conservation, public health, agriculture, public utilities and industrial development. SB 1410 directs the panel to complete its task within two years, by Jan. 15, 2005, but no report has yet been issued.

Water Storage Rights. In order to approve a permit to appropriate stream water from existing federal reservoir projects, OWRB can require an applicant to present a signed storage repayment contract. OAC 785:20-7-5. In addition, OWRB may require that any sale of water rights be dependent on the buyer demonstrating that it has storage capability.

Rights to store water in Corps-built reservoirs are obtained directly from the Corps itself, by contract. They are private contractual rights, not real property rights. Corps contracts grant a storage right in acre-feet in exchange for repayment of a fair share of the project construction costs and annual operation and maintenance costs, in accordance with requirements established by Congress. The Corps will not contract until the user has obtained a water right from the applicable state agency. That water right

remains separate from the storage contract at all times; the Corps does not defend a user's water rights against forfeiture or challenge—each user is responsible for preserving its own interests.

The user's repayment obligations under a Corps contract are independent of the status of its water rights. In other words, if the user suffers a reduction in its water right under OWRB rules and procedures, it is still obligated to repay the Corps pursuant to the storage contract. There is no contractual provision for any relief from repayment obligations in the event a water right is lost, in whole or in part. It is possible to assign storage rights under the contract as long as procedures are followed to obtain the required approval from the Secretary of the Army. According to the Corps, assignments may involve the complete transfer of all storage rights, or may be limited to partial storage rights (partial assignments).

The Corps views assignments—either full or partial—as requiring thorough review to determine the creditworthiness of the assignee, who, after all, will assume the obligations under the contract. If, on the other hand, a transaction is something less than an assignment, such as a sub-lease of the water for which a storage right exists, so that the original party remains bound on the storage contract, the Corps will not become involved.

E. WATER RIGHTS IN GROUNDWATER

It is well-established in Oklahoma law that groundwater, which is vital for agriculture and other uses, is a property right of the overlying landowner – and may be used, at least in reasonable amounts, subject to regulation by the OWRB. Title 82 of the Oklahoma statutes defines groundwater as "fresh water under the surface of the earth regardless of the geologic structure in which it is standing or moving outside the cut bank of any definite stream." 82 OS 1020.1. A "definite stream" is a "watercourse in a definite, natural channel, with defined beds and banks, originating from a definite source or sources of supply." 82 OS 105.1. The owner of the land owns water under its surface not forming a definite stream, 60 OS 60, but that right is subject to the requirement of beneficial use and a permit. 82 OS 1020.7 (except in the case of domestic use, as

discussed below). In contrast, surface water in a definite stream is public water and is subject to appropriation, as discussed above. 82 OS 105.1A.

The basic underlying policy in Oklahoma is "to utilize the groundwater resources of the state, and for that purpose to provide reasonable regulations for the allocation for reasonable use based on hydrologic surveys of fresh groundwater basins or subbasins to determine a restriction on the production based upon the acres overlying the groundwater basin or subbasin." 82 OS 1020.2. However, before addressing what is considered reasonable use, it is important to note the exception from state regulation for domestic use of groundwater.

"Domestic use" means the use of water by a natural individual or by a family or household for household purposes, for farm and domestic animals up to the normal grazing capacity of the land whether or not the animals are actually owned by such natural individual or family, and for the irrigation of land not exceeding a total of three (3) acres in area for the growing of gardens, orchards, and lawns. 82 OS 105.1(B). Domestic use also includes:(1) the use of water for agriculture purposes by natural individuals, (2) use of water for fire protection, and (3) the use of water by non-household entities for drinking water purposes, restroom use, and the watering of lawns, provided that the amount of stream water used for any such purposes does not exceed five acre-feet per year. OAC 785-30-1-2.

Any landowner can take groundwater from land owned by him for domestic use without a permit. OAC 785:30-13-1. If the well is located in a municipality, the landowner may be required to obtain a municipal permit. *Id.* All wells other than domestic wells within corporate municipal limits are under the jurisdiction of the OWRB and require a permit. OAC 785:30-13-6.

As stated in the basic policy, a key concept is "reasonable use." The OWRB determines reasonable use in two basic ways. First, the OWRB is required to determine the maximum annual yield of groundwater to be produced from each groundwater basin based on a hydrologic survey. 82 OS 1020.5. For basins that have been studied, the OWRB can allocate via **regular permits** as much groundwater as the aquifer can

produce without being depleted for 20 years. OAC 785:30-5-1. Second, for those groundwater basins where the yield has not been studied, the OWRB can allocate via **temporary permits** not less than 2 acre-feet of water per year per surface acre owned. OAC 785:30-5-2(b). Temporary permits are most frequently used, but they can generally be routinely revalidated each year.

In deciding whether to approve a groundwater permit, the OWRB must determine:

(a) Whether the applicant owns or leases or has some other sufficient interest in the surface of the land dedicated to the application;

(b) Whether such land overlies a fresh groundwater basin or subbasin;

(c) Whether the use to which the applicant intends to put the water is a beneficial use; and

(d) That waste by depletion or waste by pollution will not occur.

OAC 785:30-3-5; 82 OS 1020.9 (A). If the Water Board finds for the applicant on all four issues, it must issue a permit. 82 OS 1020.9 (A).

The concept of “waste by depletion” generally means taking or using fresh groundwater in any manner so that the water is lost for beneficial use. OAC 785:30-1-2. The concept of “waste by pollution” generally means any act that permits, allows, or causes groundwater that has become polluted to filter back into a groundwater basin. *Id.* For example, if groundwater is used and becomes contaminated with pollutants in an animal feeding operation and then is managed so that it infiltrates back into an aquifer, then waste by pollution has occurred.

Several years ago, the concept of waste by pollution was the subject of an important groundwater case, *Messer-Bowers Co. v. State ex rel. Oklahoma Water Resources Bd.*, 2000 OK 54, 8 P.3d 877 (2000). In *Messer-Bowers Co.*, the Oklahoma Supreme Court discussed the impact of the Oklahoma Environmental Quality Act, 27A OS 1-1-201 et seq., enacted in 1992-1993, on previous groundwater law. The court noted that under the EQA, the Oklahoma Department of Agriculture was given responsibility for "point source discharges and nonpoint source runoff from agricultural crop

production, agricultural services, livestock production, silviculture, feed yards, livestock markets and animal waste." *Id.* at 1-3-101 (D)(1)(a).

The OWRB had interpreted this as a grant of exclusive jurisdiction to the Department of Agriculture, and therefore the OWRB in its permit proceeding had only considered whether there was waste by pollution as a result of extraction and transportation of groundwater, not ultimate disposition of contaminated groundwater. The court held, though, that nothing in the EQA provides that the Department of Agriculture has exclusive jurisdiction on such issues. Accordingly, the court remanded the case and required the OWRB to receive evidence and make findings of fact to determine whether waste by pollution would occur through **all** uses of groundwater at the facility in question, including the return of groundwater to the aquifer. As a corollary, the applicant was required to present evidence concerning the effect of its effluent irrigation on the groundwater formation.

In response to *Messer-Bowers*, the legislature amended Title 82 to provide that if the activity for which the applicant intends to use the water is required to comply with the rules and requirements of or is within the jurisdictional areas of environmental responsibility of the Department of Environmental Quality or the State Department of Agriculture, the OWRB shall be precluded from making a determination whether waste by pollution will occur. In such a case, the responsible agency shall make the determination. 82 OS 1020.9(A)(2)(c).

As a result, the OWRB asserts that the determination of waste by pollution, when made by another agency, has no role in the OWRB's finding of waste as a precondition for approving a permit. The OWRB considers "waste" and "waste by pollution" to be separate and distinct categories. "Waste," which is subject to OWRB jurisdiction refers only to the waste of water at the point of extraction. "Waste by pollution," which the Water Board now hands off to other environmental agencies, refers to pollution that occurs after the extraction of water (e.g., from land application of groundwater). The OWRB's interpretation of the amended statute has been criticized. *See Environmental Law: The Environmental Quality Act as a Reservoir of Legislative Intent - A New Model*

of Interagency Cooperation Springs Forth from the Clarification of Oklahoma's Groundwater Law, 55 Okla. L. Rev. 417 (2002).

Another important development in Oklahoma groundwater law has been the recent controversy over development of the Arbuckle-Simpson aquifer in south-central Oklahoma. This controversy arose in 2002 over a plan to pump and transport water via an 88-mile pipeline from the vast (500,000 square mile), high quality Arbuckle-Simpson aquifer – the principal source of water for cities, towns, industries, farms and ranchers in the region, including Ada and Sulphur – to serve the drinking water needs of growing communities in central Oklahoma (several cities and towns in Canadian County). Concerns arose that the withdrawal of water from the Arbuckle-Simpson aquifer in large quantities (approximately 80,000 acre-feet per year) would deplete water available for area seeps, springs, and streams that depend on the aquifer. As a result of the intense controversy, Senate Bill 288 was enacted in May 2003.

Senate Bill 288 imposes a moratorium on the issuance of any temporary groundwater permit for municipal or public water supply use outside of any county that overlays, in whole or in part, a “sensitive sole source groundwater basin.” (The Arbuckle-Simpson aquifer is the only such groundwater basin in Oklahoma, a fact which has given rise to litigation challenging the constitutionality of the moratorium. *See Jacobs Ranch v. Smith*, CJ-2003-4700 (Okla. County). On December 30, 2004, the trial court upheld the constitutionality of Senate Bill 288, and the matter is now on appeal.)

The moratorium prohibits municipal and political subdivisions outside a sensitive sole source groundwater basin from entering into contracts for use of the water. The moratorium applies to both pending applications and any revalidation of existing temporary permits. The moratorium will remain in effect until the OWRB completes its hydrologic study of the Arbuckle-Simpson aquifer and approves a maximum annual yield that will not reduce the natural flow of water from springs or streams emanating from the aquifer. Prior to approval of permits for groundwater use within the basin, Senate Bill 288 also requires the OWRB to find that the proposed use is not likely to degrade or interfere with springs or streams emanating from the aquifer. A multi-year \$5.2 million

hydrologic investigation of the Arbuckle-Simpson aquifer is currently in progress. This will be the first study in Oklahoma to focus on the multifaceted interaction of surface water and groundwater. For further information, *see* http://www.owrb.state.ok.us/-studies/groundwater/arbuckle_simpson/arbuckle_study.php.