Defending Liberty
Pursuing Justice

ABA SECTION OF ENVIRONMENT ENERGY AND RESOURCES

Water Quality and Wetlands Committee Newsletter

Vol. 7, No. 3 **April 2008**

MESSAGE FROM THE CHAIR

John Milner
Brunini, Grantham, Grower & Hewes PLLC
Jackson, Mississippi

The Water Quality and Wetlands Committee leadership team has been working hard to provide quality information to our membership and the Section at large concerning water quality and wetlands issues. This is the third newsletter that we have published in this committee year and a fourth issue will be published this summer. The theme of the current issue is "water shortage and the new clean water." The theme of the summer issue will be "energy and water quality and wetlands." For example, what effect—if any—does biofuel production have on water quality?

On Feb. 7, our committee co-sponsored with the Water Resources Committee an informative national Quick Teleconference (QT) entitled, "The Nuts and Bolts of Conducting a Jurisdictional Determination using the *Rapanos* Guidance: What is the Impact on Your Practice?" The objective of the QT was to inform the participants on the latest information from EPA and the Corps on the implementation of the *Rapanos* Guidance. We plan to conduct a follow-up QT on this topic as we have more clarity from the EPA guidance development process.

The philosophy of our committee is to involve as many of our members as possible in leadership positions. To this end, four new vice chairs have been selected due to their expression of interest at the committee roundtable discussions at the 37th Annual Conference on Environmental Law in Keystone, Colorado, which was held on March 15, 2008. These four vice chairs will be designated as "at large" and will provide valuable assistance to achieve the committee's Action Plan. These new vice chairs are:

Colleen Costello
Langan Engineering & Environmental Services
Ste. 1300
30 S 17th St.
Philadelphia, PA 19103
(215) 864-0640 (office)
(215) 864-0671 (fax)
ccostello@langan.com

Barbara Little
Jackson Kelly PLLC
1600 Laidley Tower
Charleston, WV 25301-2189
(301) 340-1355 (office)
(304) 340-1130 (fax)
blittle@jacksonkelly.com

Amanda A. Neidert
Miles & Stockbridge PC
10 Light St.
Baltimore, MD 21202
(410) 385-3852 (office)
(410) 385-3852 (fax)
aneidert@milesstockbridge.com

Water Quality and Wetlands Committee Newsletter
Vol. 7, No. 3, April 2008
Tara W. Duhy, W. Blaine Early, III, Beth S. Gotthelf, Steve Kelton, and Jeff Kray, Editors

In this issue:

This newsletter is a publication of the ABA Section of Environment, Energy, and Resources, and reports on the activities of the committee. All persons interested in joining the Section or one of its committees should contact the Section of Environment, Energy, and Resources, American Bar Association, 321 N. Clark St., Chicago, IL 60610.

Al Eckert
Quattlebaun, Grooms, Tull & Burrow, PLLC
Suite 1900
111 Center St.
Little Rock, AR 72201
(501) 379-1712 (office)
(501) 379-1712 (fax)
aeckert@qgtb.com

If you would like to become active as a vice chair in the committee, please feel free to contact me or a current vice chair. We would be delighted for you to join us so that we can continue to expand our service to the committee and Section membership.

TOILET TO TAP AND THE CLEAN WATER ACT

W. Blaine Early, III, Ph.D

The Clean Water Act (CWA) prohibits discharge of pollutants from point sources without a permit and we rely on compliance with those permits to protect water quality. 33 U.S.C. § 1342. Implementation of the water quality aspects of the CWA often focuses on the "fishable and swimmable" goals of the CWA. 33 U.S.C. § 1251(a)(2). As a result, an important component of the CWA may be overlooked: protection of drinking water supplies. Congress expressly stated that programs under the CWA shall consider improvements necessary to conserve waters for *public water supplies*, in addition to the other objectives. 33 U.S.C. § 1252. Every state we have examined has designated surface water for use as a source of drinking water under 33 U.S.C. § 1313. *See, e.g.*, ALA. ADMIN. CODE § 335-6-11-.01 (Alabama "Public Water Supply"); Wy. Code, Dept. of Env. Quality, Ch.1 § 3 (Wyoming "Drinking Water"). Even though state and federal water laws recognize the importance of potable water sources, conventional ideas of pollution control may not be sufficient to protect the health of drinking water users. This article highlights a few of the water quality issues related to the discharge of wastewater from a particular type of point source—municipal wastewater

treatment plants—and the impact on those who depend on the water that receives that discharge as a source for their drinking water.

The amount of fresh water available at any one place depends, in part, on the volume of a reservoir or the flow of a stream. This finite supply of fresh water confronts an increased demand for water by an ever-growing population centered in expanding metropolitan areas. *See, e.g.*, TAKASHI ASANO, WATER FROM (WASTE)WATER—THE DEPENDABLE WATER RESOURCE, 11TH STOCKHOLM WATER SYMPOSIUM (Aug. 12-18, 2001) (hereinafter, "ASANO"); U.S. ENVIRONMENTAL PROTECTION AGENCY, GUIDELINES FOR WATER REUSE 2 (Sept. 2004) (hereinafter, "REUSE GUIDELINES"); U. S. DEPARTMENT OF THE INTERIOR, WATER 2025 STATUS REPORT (Aug. 2005).

Attempting to conserve limited water resources, some communities have adopted local water reuse programs. For example, in El Paso, Texas, effluent from the municipal treatment plant is used to irrigate golf courses, parks, and school grounds; and Tallahassee, Florida, uses wastewater effluent for agricultural irrigation. REUSE GUIDELINES at 48-71. These examples of water reuse represent direct reuse. In cases of direct reuse, reclaimed water—water treated to the necessary quality for the intended use—is piped or otherwise conveyed to the point of reuse. ASANO at 3.

In contrast, indirect reuse occurs when the effluent is discharged to some receiving body and assimilated there, and is then withdrawn for subsequent use. *Id.* Some communities employ indirect reuse as they discharge wastewater effluent to replenish drinking water supplies. Randal C. Archibold, *From Sewage, Added Water for Drinking*, N.Y. TIMES (Nov. 27, 2007). This planned form of indirect reuse often relies on adding the treated effluent to groundwater. *Id.*; REUSE GUIDELINES at 45.

What is far more common, however, is the unplanned indirect reuse that occurs almost every day along our nation's largest rivers. Citing examples of Philadelphia (Delaware River), Cincinnati (Ohio River), and New Orleans (Mississippi River), EPA observed that "a number of cities have elected to take water from large rivers that receive substantial wastewater discharges" and "NPDES [National Pollutant Discharge Elimination System] permits for these discharges are intended to make the rivers 'fishable and swimmable,' and generally do not reflect potable water requirements downstream." REUSE GUIDELINES at 44. In fact, according to the Environmental Protection Agency (EPA), most people (about 66 percent) get their drinking water from a surface water source. http://www.epa.gov/safewater/faq/faq.html#source.

Takashi Asano, a leader in the field of water reuse, identifies three principles of water reuse: "(1) providing reliable treatment of wastewater to meet strict water quality requirements for the intended reuse application, (2) protecting public health, and (3) gaining public acceptance." ASANO at 2. Describing the treatment necessary for water reuse, EPA states that the primary objective—protecting public health—involves "(1) reducing or eliminating concentrations of pathogenic bacteria, parasites, and enteric viruses in the reclaimed water, (2) controlling chemical constituents in reclaimed water, and/or (3) limiting public exposure (contact, inhalation, ingestion) to reclaimed water. REUSE GUIDELINES at 90. In the case of water reuse to augment drinking water sources, the ingestion of the reused water is unavoidable so protecting public health depends on EPA's first two points: controlling pathogens and chemical constituents.

Many viruses, bacteria, and parasites are important waterborne pathogens that impact public health. *See, e.g.*, NATIONAL RESEARCH COUNCIL, INDICATORS FOR WATERBORNE PATHOGENS App. A (2004). Regulations promulgated under the Safe Drinking Water Act, 42 U.S.C. §§ 300f *et seq.*, (SDWA) establish maximum contaminant level goals (MCLG) for certain microbial contaminants in the finished drinking water that is supplied to consumers. In order to minimize the chance of the consumers becoming infected with these pathogens, the regulations establish MCLGs of "zero" for *Giardia lamblia*, viruses, *Legionella*, total coliforms, and *Cryptosporidium*. 40 C.F.R. 141.52. Thus, to protect public health the requirements for finished drinking water are very strict. But what of the pathogens in the drinking water sources?

Giardia, *Cryptosporidium*, viruses, *Legionella*, coliform bacteria, and other microorganisms are

commonly detected in treated effluent from municipal wastewater plants. *See, e.g.*, Christopher S. Crockett, *The Role of Wastewater Treatment in Protecting Water Supplies Against Emerging Pathogens*, 79 WATER ENV'T RES. 221 (2007). Wastewater plants are not the only sources of these pathogens, however, as they may be introduced into surface waters from other sources. *See, e.g.*, NATIONAL RESEARCH COUNCIL, INDICATORS FOR WATERBORNE PATHOGENS 109-163 (2004). Whatever their source, pathogens found in drinking water sources present a challenge to protecting public health.

To address risks associated with some pathogens in source waters, in 2006, EPA adopted the final rule of the Long Term 2 Enhanced Surface Water Treatment Rule (LT2). 71 Fed. Reg. 654 (Jan. 5, 2006). LT2, adopted under the SDWA, imposes requirements on drinking water systems based on the observed presence of *Cryptosporidium* in source waters. *Cryptosporidium* is a protozoan pathogen that causes cryptosporidiosis, which can result in diarrhea, abdominal cramping, nausea, vomiting, and fever and can be fatal in sensitive subpopulations such as infants, immune suppressed patients, and the elderly. The preamble to the rule states that drinking water samples testing positive for *Cryptosporidium* have occurred at drinking water plants that met existing standards and that the source water quality was a factor in determining *Cryptosporidium* vulnerability. 71 Fed. Reg. at 660.

LT2 imposes requirements on drinking water systems, but there is no similar set of requirements to limit the discharge from the sources of the pathogens. In spite of the known impact of these pathogens on public health and the pathogens' presence in wastewater effluents, at this time, there are no effluent limitations or routine requirements in permit conditions that address limits on pathogens such as *Giardia*, *Cryptosporidium*, viruses, and certain bacteria. Instead, limitations imposed by discharge permits typically refer to surrogate bacterial limits for either fecal coliform or *Escherichia coli*.

For example, a National Pollutant Discharge Elimination System (NPDES) discharge permit for a major municipal wastewater facility that discharges hundreds of millions of gallons per day into the Ohio River near Pittsburgh included a discharge limitation for fecal coliform organisms of 200/100 ml as a monthly geometric mean. This approach for indicating pathogen abundance is common in spite of growing evidence that such surrogate bacterial indicators do not reliably identify or predict the presence or abundance of all pathogens. *See, e.g.*, NATIONAL RESEARCH COUNCIL, INDICATORS FOR WATERBORNE PATHOGENS 46-47 (2004). Moreover, even if fecal coliform were a reliable indicator, then the level adopted in this example permit is too high to preserve the integrity of the drinking water source under a reuse scenario. Suggested water quality guidelines for treated wastewater involved with indirect reuse to augment surface drinking water sources state that there should be "no detectable" coliform bacteria per 100 ml, which may be interpreted be no more than 14/100 ml in any sample. REUSE GUIDELINES at 169-170. Additional water quality parameters for treated wastewater intended for indirect reuse in drinking water source waters include total suspended solids not to exceed 5 mg/l and less than 3 mg/l TOC. *Id*.

In addition to pathogens, it is necessary to control chemical contaminants in the source water to protect public health. A growing body of evidence shows that surface waters contain a myriad of organic chemicals, some of which are known to have adverse effects on human health and the environment. The Associated Press recently released a three-part story that focused on the presence of chemicals, including antibiotics and sex hormones, in the nation's drinking water sources and finished drinking water. *See, e.g.*, Associated Press, *Drug Traces Common in Tap Water*, N.Y. TIMES (Mar.10, 2008). The United States Geological Survey conducted a nationwide survey of organic wastewater contaminants (OWC) and found one or more of the chemicals in 80 percent of the 139 streams sampled. Dana W. Kolpin, *et al.*, *Pharmaceuticals, Hormones, and Other Organic Wastewater Contaminants in U. S. Streams, 1999-2000: A National Reconnaissance*, 36 ENVTL. SCI. & TECH. 1202 (2002) (hereinafter "Koplin"). Koplin's team selected sample sites because the survey team thought them to be subject to contamination from wastewater. *Id*.

The chemicals found by Koplin and his colleagues included chemicals for which maximum contaminant levels (MCLs) have been established under the National Primary Drinking Water Regulations (40 C.F.R. 141 Subpart G) as well as many chemicals for which no MCL has yet been determined. From the variety and quantities of OWCs detected, Koplin concluded "that many such compounds survive wastewater treatment and biodegradation." Koplin at 1210.

Broad categories of the chemicals identified in the study were veterinary and human antibiotics, prescription and nonprescription drugs, steroids and hormones, and other wastewater-related compounds. Most were detected at low concentrations. Two chemicals were observed in the surface waters at levels higher than their MCLs: benzo[a]pyrene and bis (2-ethylhexyl) phlthalate. One family of chemicals related to detergents—nonylphenol and related compounds—was found in several forms, widespread, and at relatively high levels (for example, nonylphenol was found at over 50 percent of the sites and at a high level of 40 Fg/l). EPA has established a numerical national water quality criterion for nonylphenol not to exceed 28 Fg/l as a one-hour average no more than once every three years. EPA, AQUATIC LIFE AMBIENT WATER QUALITY CRITERIA—NONYLPHEHOL (EPA-822-R-05-005 (Dec. 2005)).

Similarly, a study from Germany showed that pharmaceutically active compounds persisted through treatment at sewage treatment plants, thus finding their way into surface waters, ground water, and eventually into finished drinking water at the tap. Thomas Heberer, *Tracking Persistent Pharmaceutical Residues from Municipal Sewage to Drinking Water*, 266 J. OF HYDROLOGY 175 (2002). It appears that these chemicals remain physiologically-active and may affect aquatic life. Of particular concern are chemicals that mimic or upset hormone systems—the endocrine-disrupting compounds. *See, e.g.*, Michael R. Rosen, et al., *Investigations of the Effects of Synthetic Chemicals on the Endocrine System of Common Carp in Lake Mead, Nevada and Arizona*, U.S. GEOLOGICAL SURVEY, FACT SHEET 2006-3131 (Oct. 2007).

Some municipal wastewater permits contain discharge limitations beyond the conventional CBOD, pH, ammonia nitrogen, suspended solids, and dissolved oxygen. For example, the Ohio River NPDES permit discussed above, includes water quality based effluent limitations for three chemicals: heptachlor, hepthachlor epoxide, and benzidine. However, in spite of the evidence regarding chemical contaminants from wastewater facilities and the health impacts of those chemicals, there is no apparent regulatory effort to impose treatment requirements or to otherwise limit discharge of these pollutants to receiving waters, which then become the source of drinking water for those downstream.

On a global scale, almost all water is reused water. It moves across a region or around the world in the hydrologic cycle of evaporation, movement, condensation, more movement, and so on. At a local level, however, it is likely that the potable water that we use today for drinking, cooking, bathing, and other activities was likely used by someone else in the recent past, treated in a municipal wastewater plant, and then discharged into the water that serves as our drinking water source. The water for reuse contains currently "unregulated" pathogens and chemical constituents contributed by the water's previous users. The presence and effects of these pollutants are well known. The CWA requires that we protect the quality of the sources of our drinking water. It also provides the tools to do so. We must use them.

W. Blaine Early, III, Ph.D., *practices environmental law in the Lexington, Kentucky, office of Stites & Harbison, PLLC. Contact him at bearly@stites.com.*

VISIT US ON THE WEB!

Water Quality and Wetlands Committee:
http://www.abanet.org/environ/committees/waterquality/

WATER CONSERVATION THROUGH GREEN INFRASTRUCTURE

Marina Liacouras Phillips

Water shortages caused by drought across the country have increased the focus upon water conservation nationwide. While commonly known techniques such as turning off faucets while brushing teeth or using low-flow showerheads are certainly important, efforts are being made to discover new ways to protect water quantity. With this in mind, on Jan. 17, 2008, the United States Environmental Protection Agency (EPA) released an Action Strategy for Managing Wet Weather with Green Infrastructure (Action Strategy), available at http://cfpub.epa.gov/npdes/green infrastructure/information.cfm#greenpolicy. The term "green infrastructure" is currently used to refer to a variety of things in the environmental community, but to EPA, the term refers to practices that conserve storm water for reuse or return to the environment. The January 2008 Action Strategy encourages water conservation through the use of green infrastructure technologies for storm water management.

Land development prevents the infiltration of rain water into the ground by replacing pervious surfaces with impervious ones such as roadways, driveways, and buildings. This causes an increase in storm water runoff that routes water into surface waters and sometimes even to a different watershed, instead of back into the ground. Frequently, the storm water runoff carries sediment or other pollutants with it into surface waters, generating a water quality as well as water quantity issue. Green infrastructure techniques are intended to control storm water runoff by directing the storm water back into ground water through infiltration or into the air through evapotranspiration.

For some time now, EPA has been supporting the reduction of impervious surfaces on an individual basis. Gravel, pervious asphalt, and mulched paths have been recommended in place of concrete roads, sidewalks and patios. Other storm water management techniques recommended by EPA include rain gardens and rain barrels to allow rain water to soak back into the ground instead of flowing into storm drains on the street. The incorporation of grassy swales into land use plans has been suggested as a storm water management technique.

More recently, the concept of low impact development, or "LID," has become more popular. LID is based upon the concept that storm water management should result in the reuse, not "disposal" of storm water. Innovative best management practices such as tree box filters, vegetated filter strips, green roofs, and storm water harvesting for non-potable uses have been developed and are used more frequently.

The EPA's Action Strategy is designed to encourage the use of techniques such as those described above on a broader basis, such as on a community-wide or even watershed basis. One of its goals is to develop strategies to promote the use of green infrastructure by cities and utilities to reduce storm water pollution and sewer overflows while simultaneously conserving water. Ironically, to date, cities have proven to be green infrastructure's greatest friend and greatest foe.

Local governments will be important partners with EPA in implementing this Action Strategy. Traditional municipal land use ordinances require the construction of wide streets and curbs and gutters, elements of what is now called "gray infrastructure." These items serve to increase the volume of storm water flow and route it directly to surface waters or detention ponds. Municipalities are now considering amendments to their codes to incorporate green infrastructure. The EPA's Action Strategy will evaluate ways in which green infrastructure can help municipalities comply with the terms of MS4 permits or long-term control plans for combined sewer overflows. The Action Strategy plans to develop a guidebook on implementing green infrastructure for municipalities, to be published in 2009.

Currently, there are no universally recognized standards by which the effectiveness of green infrastructure techniques can be measured. The development of models and modeling protocols to quantify discharge volumes and pollutant reductions is currently underway and is anticipated for completion in September 2008. The promotion of the use of green

infrastructure by "big-box" retailers and federal government agencies is also a high priority.

Green infrastructure provides other benefits besides protection of water quality and quantity. Energy demands can be reduced due to the increase in vegetative cover prompted by the implementation of green infrastructure. The EPA's Action Strategy includes the development of models to calculate the impacts of infrastructure on energy demands. The use of green infrastructure techniques can also reduce costs for construction and maintenance of storm water management. EPA is analyzing capital expenditures, life cycle, and other costs to allow users to evaluate green infrastructure practices. This analysis includes the identification of incentives to encourage the use of green infrastructure such as storm water fee structures, tax benefits, and consideration of green infrastructure in making permit decisions. All of these items can be incorporated into state or local regulatory programs to promote conservation through storm water management.

EPA's Web site, available at http://cfpub.epa.gov/npdes/home.cfm?program_id=298, provides information on green infrastructure. The entire Action Strategy is available, along with case studies and examples of common green infrastructure approaches.

The value of implementing proactive rather than reactive storm water management techniques is just now being discovered. Implementation of these techniques in a system-wide manner will help us sustain our water resources. Most likely, implementation of green infrastructure will require the development of a new regulatory framework that can accommodate these important new issues. Green infrastructure can be promoted through storm water permits, comprehensive plans, zoning ordinances, and even through funding programs. To sustain our water resources, we must look beyond our past practices of sending storm water to detention basins and incorporate construction techniques that will put storm water back into the ecosystem.

Marina Liacouras Phillips *practices environmental law in the Norfolk, Virginia office of Kaufman & Canoles. Contact her at mlphillips@kaufcan.com.*

WATER LAW FOR A THIRSTY ATLANTA

Leah J. Knowlton

On Thanksgiving Day 2007, metropolitan Atlanta had about ninety-eight days of accessible water left in its main drinking water reservoir, Lake Lanier. The reservoir that provides water for drinking, sewage, and power generation for Atlanta and other north Georgia cities was at its lowest level since it was constructed in 1956 and was nearing the lowest level where intake pipes can continue to draw water. Surface waters across sixty-one counties of north Georgia and a wide swath of neighboring southeastern states were drying up in an unprecedented drought, and Georgia, like other affected states, imposed its most stringent drought response regulations. The drought and the ensuing water crisis raise many difficult issues for environmental law practitioners, state regulators, and politicians. This article highlights a few of these concerns.

Georgia's water law can best be characterized as a traditional riparian rights system in which lower riparian owners have the right to receive water in its natural flow subject to the *reasonable use* by upper riparian owners—but only for uses of surface and groundwater under 100,000 gallons per day (gpd) monthly average. For withdrawals above 100,000 gpd, the state instituted a permitting system. In October 2007, the Georgia Environmental Protection Division sent permit modification notices to permitees under the Surface Water Withdrawal Act, Groundwater Use Act, and Safe Drinking Water Act, requiring a 10 percent reduction in water withdrawals in the sixty-one north Georgia counties most impacted by drought conditions.

The mandatory reduction in groundwater and surface water withdrawals only affects those drawing over 100,000 gdp. Recent news accounts describe streams, springs, and wells running dry in north Georgia in areas where water bottling companies are drawing groundwater for bottling. Since permits are not required to withdraw less than 100,000 gdp, there are no records of how much water is being withdrawn or from which sources. Heather Vogell, *The Draining of Fannin County: As residents run dry, bottled water flows out,* ATLANTA JOURNAL CONSTITUTION, Mar. 13,

2008, at A1, A14. Georgia courts have considered "reasonable use" of waters in only a few cases, and there are no modern cases on what constitutes reasonable use of groundwater.

Georgia has imposed stringent drought response measures in the most impacted areas, including a ban on most outdoor watering uses. These restrictions contain exemptions for riparian property rights to streams, lakes and groundwater, and contain exemptions aimed at easing economic impacts on certain businesses, such as professional landscaping. In February 2008, Georgia enacted the new Comprehensive Statewide Water Management Plan, and dozens of related legislative bills related to its implementation are pending in the General Assembly.

Even increased conservation measures in north Georgia may not avert severe water shortages if drought stricken areas fail to receive appreciable amounts of rain. Georgia state climatologist David Stooksbury warned that even above-average rainfall all spring will not be sufficient to replenish Lake Lanier to normal pool level.

Yet, the U.S. Army Corps of Engineers must continue to release water from Lake Lanier in order to maintain flow levels in the Chattahoochee River that borders Alabama, and flows south into the Apalachicola River through Florida to the Gulf of Mexico. The sharing of water from these and other rivers, and from Lake Lanier and other reservoirs, has been the subject of a seventeen-year "tri-state water war" among Georgia, Alabama, and Florida.

In a recent skirmish, governors of the three States met in Washington and reportedly agreed on a plan to reduce flows from Lake Lanier to preserve Atlanta's drinking water, while allowing sufficient flows for endangered species in Florida and an Alabama nuclear power plant, among other uses. That reported agreement soon unraveled, however, and all formal negotiations aimed at resolving the water wars among Florida, Alabama, and Georgia ended. Meanwhile, Georgia opened a new battle front in the water wars by claiming that its border with Tennessee was mistakenly drawn, with the result being that Georgia rightfully owns a portion of the Tennessee River. Emergency measures and longer term solutions alike raise a myriad of difficult issues. Several governmental agencies are analyzing smaller lakes, reservoirs, and quarries for possible use as drinking water reservoirs. Water could be diverted from other lakes and reservoirs, but many of those lakes serve power generation facilities and discharge to rivers flowing to the Atlantic Ocean. Even if it were technologically feasible to divert water from the nearest of these lakes to the Chattahoochee River, the water so diverted could leave major cities, such as Savannah, with inadequate water supplies, and could disrupt ecosystems and harm endangered species in another set of watersheds. Any such diversion from lakes serving power utilities would additionally need authorizations from the Federal Energy Regulatory Commission and would result in a trade-off between power supply and water consumption.

Whatever solutions are implemented for near-term water shortages will set the stage for drought response, and generally for adaptation to climatic change for the coming decades. Competing uses for limited water supplies will require reevaluation of common law water rights and the interplay of statutory programs that rely on water quality and quantity.

Unfortunately, the combination of an unprecedented drought and inadequate planning are already overwhelming our political and legal systems' ability to respond; and the worst may be ahead of us. Last summer, Aris Georgakakos, director of the Georgia Water Resources Institute at the Georgia Institute of Technology, said "I don't think we've seen the main drought yet. I think that based on the historic models, the main drought will hit sometime in the 2009 to 2011 time frame—this is just a prelude." Jay Bookman, *This drought just dry run to real crisis*, ATLANTA JOURNAL CONSTITUTION, June 14, 2007, at A19.

Leah J. Knowlton *practices environmental law with Epstein Becker & Green, P.C. in Atlanta, Georgia. Contact her at LKnowlton@ebglaw.com.*

CONSIDERATIONS IN DRINKING WATER TREATMENT OF GROUNDWATER TO REMOVE EMERGING CONTAMINANTS

Nicole Keon Blute, Ph.D.

Increasing demands on water resources and dwindling water supplies, particularly in the West, are driving utilities to tap into groundwater supplies with compromised water quality. The relatively high cost of imported water (and questions about its long-term reliability) encourage the development and use of local aquifers. Urban areas, however, are often confronted with legacies of improper waste disposal practices resulting in contaminated groundwater. Multiple contaminants are typically present and require different treatment technologies, resulting in complex treatment trains. In addition, contaminants for which treatment strategies are relatively immature (emerging contaminants, for example) require research to identify and test potential technologies prior to installation.

The development of contaminated groundwater into a potable resource can require extensive cooperation and agreements between utilities, potential responsible parties, and local, state, and federal regulatory agencies. The questions associated with cost allocations, while fascinating, are beyond the scope of this article. Southern California has many such efforts underway that are being supported by Malcolm Pirnie, including those in the San Gabriel Basin and the San Fernando Valley. The California Department of Public Health imposes stringent requirements on water purveyors treating extremely impaired sources under Policy Memorandum 97-005 (e.g., in both of these cases potable water is produced from Superfund sites). For groundwater, this policy applies to water sources that exceed ten times the maximum contaminant level (MCL) or notification level (NL) for contaminants with chronic health effects that exceed three times the MCL or NL for contaminants with acute health effects; are threatened due to proximity to contamination or are intended to intercept plumes; or contain a mixture of contaminants of health concern.

A suite of contaminants is found in the San Gabriel Basin, particularly in the Baldwin Park Operable Unit (BPOU) from which multiple utilities withdraw water. The presence of volatile organic compounds (VOCs), perchlorate, 1,2,3-trichloropropane (TCP), N-nitrosodimethylamine (NDMA), and 1,4-dioxane create a challenge in identifying and properly arraying individual treatment processes. Most recently, technological advances and replacement of first-generation technologies with newer approaches have mitigated overall costs. For example, the treatment of perchlorate using single-pass ion exchange rather than salt-regenerable ion exchange resins reduces costs. In addition, the generation of large quantities of perchlorate-laden brine waste is eliminated with the use of disposable resins while the potential disposal liability is markedly reduced.

The City of Glendale, California, also treats VOCs in a facility operating since 2000. The co-occurrence and increasing concentrations of hexavalent chromium in its groundwater, however, prompted Glendale to embark upon a four-phase study to ultimately select and implement a unique treatment approach. Initial efforts screened a range of possible technologies and tested them at low flow rates at the pilot scale. As a result of this work, Glendale is currently proceeding with the design and installation of two technologies. The beneficial outcomes of this project are expected to include sustenance of a critical water supply for the city, partial clean-up of several groundwater contamination plumes in the San Fernando Valley, and the generation of valuable information for other utilities requiring hexavalent chromium treatment. These efforts will also add value to the debate in California over the state's setting of a hexavalent chromium MCL.

When developing and implementing new technologies, care must be taken to avoid introducing another contaminant during water treatment and to ensure that the residuals or byproducts generated by the processes are properly handled and disposed of to avoid both future water quality issues elsewhere and associated liability. For example, single-pass ion exchange resins used for perchlorate eliminate brine may leach nitrosamines during startup. Testing, however, indicates that a period of flushing the resin beds prior to bringing them into service will avoid water quality concerns. Hexavalent chromium treatment using one leading

technology can accumulate uranium on the media, which may be avoided by limiting bed life or can be addressed in disposal.

Drinking water treatment technology selection must be balanced with the ability to meet and exceed regulatory and customer demands, cost control, and prevention of future liability due to residuals. A cradle-to-grave approach in the technology assessment stage is therefore recommended to ensure that one solution does not generate unintended consequences, particularly when treating emerging contaminants in areas where water resources are scarce.

Nicole Keon Blute, Ph.D., *works in the Santa Monica, California office of Malcolm Pirnie, Inc. Contact her at nblute@PIRNIE.com*.

AMERICAN BAR ASSOCIATION SECTION OF ENVIRONMENT, ENERGY, AND RESOURCES

Calendar of Section Events

Eastern Water Resources Conference
May 1-2, 2008
Charlotte, North Carolina

Global Warming II: How the Law Can Best Address Climate Change (36th National Spring Conference on the Environment)
June 6, 2008
Baltimore, Maryland
(Cosponsored with the ABA Standing Committee on Environmental Law)

16th Section Fall Meeting
Sept. 17-20, 2008
Phoenix, Arizona

For more information, see the Section Web site at www.abanet.org/environ/.

DON'T GET "STUCK IN THE MUD": WHAT YOU NEED TO KNOW ABOUT THE LAW REGULATING STORM WATER DISCHARGES FROM CONSTRUCTION SITES

Wilson S. Buntin

Introduction

Tennessee has been experiencing a boom in both residential and commercial development for a number of years now. While such development can be beneficial to the state in many aspects, it can also be detrimental to water quality. With the lingering effects of a major drought in much of the Southeast, Tennessee is now, more than ever, realizing the great importance of protecting its water resources. A major threat to water quality in Tennessee is sediment that is washed into streams and rivers from land that has been cleared during construction activity. A state 2006 report on water quality indicates that sediment from construction sites is one of the biggest pollutants affecting water quality in Tennessee. Tenn. Dep't Env't Cons., 2006 305(b) Report: The Status of Water Quality in Tennessee 38-39 (2006), at http://www.tennessee.gov/environment/wpc/publications/2006305b.pdf. The report estimates that excess sediment is impacting over five thousand miles of streams and rivers in Tennessee. *Id.*

Sediment from construction sites can be extremely harmful to water quality in a number of ways. Sediment can cause excess turbidity in the receiving waters which can clog the gills of fish, blind aquatic organisms that rely on sight for feeding, and block sunlight from reaching aquatic vegetation relied on for food by aquatic organisms. U.S. ENVTL. PROT. AGENCY, ECONOMIC ANALYSIS OF THE FINAL PHASE 11 STORM WATER RULE, FINAL REPORT 2-7, 2-8 (1999), *at* http://www.epa.gov/npdes/pubs/econ_chap_2.pdf. Once sediment is deposited on the bottom of a stream or riverbed, it can harm the habitat of many aquatic organisms by filling in natural crevices between rocks used by these organisms to gather food and lay eggs. *Id.* at 2-5. Sediment can also pick up and transport other toxic substances, including petroleum, which may

have been accidentally spilled at a site, and transport them into nearby waters. *Id.* at 2-8. Finally, excess sedimentation can lead to higher water treatment costs for municipalities because removing sediment from drinking water can entail more expensive processes. *Id.* at 2-7.

In response to the large impact caused by sedimentation on water quality in Tennessee, the Tennessee Department of Environment and Conservation (TDEC) and the Tennessee Attorney General's Office have recently launched a joint enforcement initiative to crack down on Tennessee's most egregious violators of the state's storm water requirements. This article will provide a brief overview of federal and Tennessee law regulating storm water discharges from construction sites. It will then describe how storm water laws, as they apply to construction sites, are enforced at the state level by both TDEC and the Attorney General's Office. Finally, this article will describe the scope of the recent joint storm water enforcement initiative between TDEC and the Attorney General's Office, as well as highlight some recent enforcement actions that have been commenced under this initiative.

Federal Water Pollution Control Act

Congress passed the Federal Water Pollution Control Act or Clean Water Act (CWA) in 1972. Pub. L. No.92-500, 86 Stat. 816 (1972). The CWA initially focused on controlling pollution that was being discharged from factories and wastewater treatment plants via pipes or other confined, discrete conveyances directly into the nation's waters. Randy Hill & David Allnut, *Wet Weather Regulations Control of Storm Water and Discharges From Concentrated Animal Feeding Operations and Other Facilities*, in CLEAN WATER ACT HANDBOOK 163 (Mark A. Ryan ed., 2003). To accomplish this goal, Section 301 of the CWA makes "the discharge of any pollutant by any person" illegal unless it is in compliance with the terms of a permit authorized under another section of the Act. 33 U.S.C. § 1311(a). "Discharge of a pollutant" is defined to mean "any addition of any pollutant to navigable waters from any point source." 33 U.S.C. § 1362 (12). In turn, "point source" is defined as "any discernable, confined and discrete conveyance," 33 U.S.C. § 1362(14), such as a pipe, channel, or ditch. The primary permitting vehicle under the CWA was established in Section 402 and is called the National Pollutant Discharge Elimination System (NPDES). See *id.* § 1342. NPDES permits can be issued under Section 402 of the CWA for the discharge of pollutants into navigable waters as long the discharges meet stringent effluent conditions and do not violate state water quality standards. See *id.* § 1342(a). Under the CWA, the Environmental Protection Agency (EPA) can also authorize a state to issue NPDES permits in lieu of EPA as long as the state permits are at least as stringent as those issued under the CWA. See *id.* § 1342(b).

As pollution from industrial dischargers and sewage treatment plants began to be controlled more effectively by issuance of NPDES permits, water quality continued to be impacted by discharges of storm water and runoff from industrial and construction sites. Hill, *supra* note 9 at 164. In 1987, Congress passed amendments to the CWA, Pub. L. 100-4, § 405,101 Stat. 69 (Feb. 4, 1987), in part to address problems of water quality caused by storm water. Under Section 402(p) of the CWA, Congress created a two-phased process to address storm water discharges. See 33 U.S.C. § 1342(p). EPA promulgated Phase I rules in 1990, which among other things, required owners and operators of construction sites five acres or larger to obtain NPDES permit coverage. 55 Fed. Reg. 47,990 (Nov. 16, 1990). In 1999, EPA promulgated Phase II rules that required additional dischargers to be regulated, including construction site owners that disturb between one and five acres of land and less than one acre of land if part of a larger common plan of development of one acre or more. Fed. Reg. 68,772 (Dec. 8, 1999).

Tennessee Water Quality Control Act

The Tennessee Water Quality Control Act of 1977 (Act) created a comprehensive program to protect and preserve waters in Tennessee. "Waters" are defined under the Act to include all waters in the state, public or private, including groundwater, except for waters

contained solely within private property and not having an effect on surface or underground waters such as springs. TENN. CODE. ANN. § 69-3-103(33) (Subsequent citations to the Act are by section number only). The commissioner is authorized to enforce the Act, § 69-3-107, and to issue permits for discharges. § 69-3-107(14). Tennessee is authorized to run the federal NPDES permit program in lieu of EPA under the CWA. The Act also allows the commissioner, for efficiency purposes, to issue general permits, under which a category of similar dischargers or activities can be regulated. § 69-3-108(j).

Several important sections of the Act that are frequently cited in violations in administrative orders issued by TDEC, as well as in civil judicial actions initiated by the Attorney General's Office. Section 69-3-108(b) requires "every person" engaging in certain listed activities that affect waters of the state to obtain a permit from TDEC. Such activities include altering the chemical, physical, or biological properties of waters of the state, causing the discharge of wastes into waters of the state, as well as other listed activities. § 69-3-108(b). Another important section of the Act is § 69-3-114(a), which makes it unlawful for any person to discharge any substance into the waters of the state or to place substances in a location where they cause a condition of "pollution," defined in § 69-3-103(22), to waters of the state as defined by the Act. Finally, § 69-3-114(b), is significant because this section of the Act makes it unlawful not to comply with the terms and conditions of a permit issued by the commissioner.

The Tennessee Construction General Permit

Tennessee first created a General NPDES Permit for Storm Water Discharges Associated with Construction Activity (TNCGP) in 1992, with revised versions being introduced in 2000 and most recently in 2005. A copy of the TNCGP can be found online at http://www.tennessee.gov/environment/wpc/stormh2o/TNR100000.pdf. Coverage under the TNCGP authorizes a person to discharge storm water associated with construction activities into waters of the state. People or entities that intend to disturb one acre or more of land by clearing, grading, excavating, or other methods must get coverage under this permit before proceeding. TNCGP § 1.2.1. Additionally, people or entities that disturb less than one acre of land are required to get permit coverage if such development is part of a larger common plan of development that is one acre or more. *Id*. A person or entity can apply for coverage under the TNCGP by submitting a complete Notice of Intent (NOI) and a site specific Storm Water Pollution Prevention Plan (SWPPP). If approved, TDEC will issue a Notice of Coverage (NOC) under the TNCGP to the applicant. An applicant's SWPPP must be implemented as approved and be modified periodically if erosion prevention and sediment control (EPSC) measures, such as sediment basins or silt fencing, identified in the SWPPP, are not functioning properly.

The TNCGP is a very detailed document and those applying for coverage under it should carefully review it in order to understand the extensive requirements that it mandates. The majority of violations cited in administrative orders by TDEC involve violations of the TNCGP. Despite the many requirements of the TNCGP, it is still an easier and quicker process than obtaining an individual NPDES permit, which is drafted specifically for the applicant's site. It is important to note that other alterations to waters of the state, such as relocating a stream or installing a road crossing over a stream, are not covered by the TNCGP. These alterations to waters of the state require an Aquatic Resources Alteration Permit (ARAP) from TDEC. In many instances, one can also apply for coverage under a General ARAP for minor impacts to waters of the state, including minor road crossings as well as utility line crossings. General ARAP permits can be found online at http://www.tennessee.gov/environment/permits/arapgps.shtml (last visited Nov. 12, 2007).

Storm Water Enforcement in Tennessee

Most enforcement actions for violations of the storm water laws in Tennessee are commenced by TDEC with the issuance of an administrative order. The process begins when an inspector visits a construction site. Inspections are usually unannounced and are prompted by citizen or neighbor complaints in many instances. After the inspection occurs, division personnel determine if the developer and operator at

the site have permit coverage for the disturbance under the TNCGP.

If the inspection reveals violation, then a Notice of Violation (NOV) may be issued to the developer, any contractors listed on the NOI if the site has permit coverage and to the owner of the property if it is an unpermitted site. The NOV typically describes violations found during the inspection and requires the responsible person to take corrective action measures at the site. If there is no compliance with the NOV, the case is then transferred to the division's Enforcement Section located in Nashville.

Once the case is in Nashville, an administrative order and assessment (Order) is prepared. These Orders resemble complaints and allege facts and violations of the law. The most typical violations alleged in TDEC Orders are failing to comply with the terms of the TNCGP, conducting operations without TNCGP coverage, and causing a condition of pollution. TDEC Orders usually require corrective action to be taken and assess civil penalties and damages. Civil Penalties can be assessed for up to ten thousand dollars ($10,000) per day for each day a violation of the Act occurs. § 69-3-11S(a)(l). In assessing civil penalties, the Act provides that the commissioner may consider a number of specific factors including the severity of the harm caused by the discharge, efforts to return to compliance, and economic benefit gained by non-compliance, as well as other factors listed in the Act. § 69-3-11S(a)(3)(A)-(H).

All Orders are sent by certified mail or are personally served and the respondent has thirty (30) days from receipt of the Order to request an appeal of the Order and Assessment before the Water Quality Control Board (Board). §§ 69-3-109(a)(3); 69-3-11S(a)(2)(B). The Water Quality Control Board consists of ten members. § 69-3-104(a)(l). Three of the standing members of the Board are the Commissioner of TDEC or his/her designee, the Commissioner of the Health Department, and the Commissioner of Agriculture. § 69-3-1 04(a)(l)(A)-(C). The other seven members of the Board are appointed by the governor from candidates proposed by various organizations including environmental groups as well as industry organizations. §§ 69-3-104(a)(1)(D); 69-3-104(a)(4)(A).

If an appeal is not requested within thirty (30) days from receipt, the Order and Assessment become final and not subject to review under the Act. §§ 69-3-109(a)(3); 69-3-115(a)(2)(B). If a person does not comply with an Order that requires corrective action to be taken, TDEC's Office of General Counsel refers it to the Attorney General's Office to seek judicial enforcement in Davidson County Chancery Court. §§ 69-3-115(a) (2)(c); 69-3-117.38. For final Orders not requiring corrective action or in cases where the corrective action in the final Order has been completed, the Attorney General's Office delegates its authority to TDEC's Office of General Counsel to seek collection of civil penalties owed under the final Order in an appropriate court.

If an appeal is requested, a contested case hearing is convened before the Board sitting with an Administrative Law Judge. A person can seek judicial review of a final Order of the Board in court. § 69-3-111. However, the appeal is not *de novo* and is confined to the record created during the administrative hearing. TENN. CODE ANN. § 4-S-322(g).

For certain minor violations of the TNCGP that involve small construction sites and no discharges causing pollution to waters of the state, Division inspectors have been authorized to issue Expedited Directors Orders (EDO) to the land owner or permittees under the TNCGP. These EDOs offer a reduced civil penalty contingent on no future violations of the Act. Additionally, under an EDO, a person must waive his right to appeal the EDO and submit payment of the reduced civil penalty within thirty days.

Although the NOV, Administrative Order, and EDO are the primary enforcement tools used by TDEC, the commissioner can also commence a civil judicial proceeding through the Office of the Attorney General and Reporter, in Davidson County Chancery Court to enforce compliance with the Act. § 69-3-117. The Commissioner can request injunctive relief and can seek the assessment of civil penalties by the Court for violations of the Act. §§ 69-3-115(a)(2)(D); 69-3-117. Civil penalties of up to ten thousand dollars

($10,000) per day for each day violations of the Act are found to have occurred may be assessed under the Act. § 69-3-115(a)(l).

TDEC AG Storm Water Enforcement Initiative

In February 2007, TDEC and the Attorney General's Office announced a joint storm water enforcement initiative designed to crack down on the most serious violators of the state's storm water laws. In April 2007, as a part of this initiative, TDEC issued five administrative orders to Tennessee land developers and assessed a total of four million five hundred thousand ($4,500,000) in civil penalties and damages. These Orders alleged serious violations of the Act, including failure to obtain permit coverage and discharge of large quantities of sediment into nearby streams and creeks.

Attorney General Robert E. Cooper announced his office's part of the initiative in February 2007. Under this initiative, the Attorney General's Office is working with TDEC to target cases that involve repeat, egregious violations of the Act or violations that threaten waters that are high quality, impaired, used as municipal drinking water sources, or provide habitat for threatened or endangered species. In such cases, the Attorney General's Office may file civil judicial enforcement actions in Davidson County Chancery Court.

The Attorney General's Office soon began to implement its part of the enforcement initiative. In May 2007, the Attorney General's Office amended a complaint in Davidson County Chancery Court against a Memphis developer to allege additional violations of the Act at fifteen sites in Shelby County, Tennessee, nine more than were identified in the original lawsuit filed in 2004. OFFICE OF THE ATT'Y GENERAL, Press Release: *Attorney General, TDEC Expand Lawsuit Against Memphis Construction Company in Crackdown on Alleged Polluters, available at* http://www.attorneygeneral.state.tn.us/press/ 2007/ story/pr17.pdf. More recently in October 2007, the Attorney General filed a lawsuit in Davidson County Chancery Court against Crossville developers for violations of the Act at five of their construction sites in Cumberland, County Tennessee. Gary Nelson, *State Files Suit Against Crossville Excavation Company*, CROSSVILLE CHRONICLE (Nov. 5, 2007) *available at* http://www.crossville-chronicle.com/ archivesearch/local_story_309142558.html. Alleged violations in both complaints included conducting land disturbing activities of over one acre without the appropriate permit coverage, not complying with permit coverage that had been obtained at certain sites, and polluting waters of the state with sediment at some sites.

Conclusion

Developers and contractors are taking a huge financial risk if they do not understand and meet their responsibilities to control storm water at their construction sites. Developers willing to take such a risk in this climate of increased enforcement by TDEC and the Attorney General's Office are likely to find themselves "stuck in the mud" facing huge civil penalties, Orders requiring extensive correction action to be taken at the their sites, as well as potentially costly litigation. Clearly, it is a new day in Tennessee for the enforcement of storm water violations.

Wilson Buntin *is an assistant attorney general for the State of Tennessee. Contact him at Wilson.Buntin@state.tn.us. The views expressed here are the author's and do not necessarily reflect those of the Attorney General's Office or the Tennessee Department of Environment and Conservation.*

RAPANOS GUIDANCE UPDATE

Philip Mancusi-Ungaro

On Feb. 7, 2008, the Wetlands and Water Quality Committee sponsored a Quick Teleconference (QT) entitled "The Nuts and Bolts of Conducting a Jurisdictional Determination using the *Rapanos* Guidance: What is the Impact on Your Practice?" The focus of this well attended QT was to describe how a jurisdictional determination (JD) is actually done under *Rapanos*. All the new terminology emerging from the Guidance was discussed and examples were given of each type of wetland. There are also two issues of note regarding the *Rapanos* Guidance to discuss in this update. The public comment period on the 2007 *Rapanos* Guidance expired on Jan. 22, 2008. The U.S. Army Corps of Engineers (Corps) and the Environmental Protection Agency (EPA), who jointly issued the Guidance, have received approximately 62,000 comments. All of the comments will eventually be loaded in the *Federal Register* docket. At this point approximately 1,500 of the comments are posted at http://www.regulations.gov/fdmspublic/component/main?main=DocketDetail&d=EPA-HQ-OW-2007-0282.

Secondly, under the Jan. 28, 2008 Modified Process for Coordinating Judisdictional Determination memorandum (available on the Corps Web site, *see* below), if EPA and the local Corps office cannot resolve a disagreement over a jurisdictional determination, it is elevated to Corps and EPA headquarters. These joint memoranda are useful tools in developing an understanding of how the Corps and EPA address issues such as Traditionally Navagable Waters (*see* e.g Bah Lake), or adjacency of interdunal swales on a barrier island (*see* e.g., Camp St. Christopher). As these joint memorandum are issued, they are posted at the Corps Web site, *available at* http://www.usace.army.mil/cw/cecwo/reg/cwa_guide/cwa_guide.htm. As additional issues come up relating to the *Rapanos* Guidance the Water Quality and Wetlands Committee will keep you informed through these newsletters and QTs.

Philip Mancusi-Ungaro *is with the USEPA-R4. Contact him at Mancusi-Ungaro.Philip@epamail.epa.gov.* *(The information contained in this update are the views of the author and do not represent the views of the USEPA).*

RAPANOS CASE UPDATE: *UNITED STATES OF AMERICA V. ROBERT J. LUCAS, JR.*

Carol L. Lear

In an unflattering opinion, the Fifth Circuit provided a recent addition to the *Rapanos* coterie, in *United States of America v. Robert J. Lucas, Jr.*, which evaluated Clean Water Act (CWA) jurisdiction over septic systems and examined the convictions on mail fraud and conspiracy stemming from the CWA violations. No. 06-60289 (5th Cir. Feb. 1, 2008). Through companies he owned, Robert Lucas acquired Big Hill Acres (BHA) which he subdivided and sold as mobile home lots. The property, in Jackson County, Mississippi, was not connected to municipal sewer so individual septic systems were constructed. Lucas hired a private professional engineer, M. E. Thompson, Jr., to approve and certify the septic systems, as provided for by state regulations. Robbie Lucas Wrigley, Lucas's daughter, advertised, showed, and leased the lots. Federal and state agencies issued several cease and desist orders after becoming concerned that the septic systems were constructed in wetlands. The Environmental Protection Agency (EPA) also sent letters to residents apprising them of the wetlands. Twenty five of the systems failed.

The government filed an indictment alleging failure to obtain either a CWA Section 402 or 404 permit, mail fraud, and conspiracy to commit mail fraud and violate the CWA. Defendants were convicted on all counts. They then brought the subject appeal.

For our purposes the case's significance revolves around whether jurisdiction lies under the CWA. The first jurisdictional question was whether "the jury instructions failed to require the jury to find that the wetlands were waters of the United States" causing the jury to find defendants guilty even if they found no significant nexus. *Id*. at 4. The court found that the

instructions "contained elements of both the [*Rapanos*] plurality and concurring opinions by requiring the jury to find that the wetlands were 'adjacent to a navigable body of open water,' meaning 'there is a *significant nexus* between the wetlands in question and a *navigable-in-fact* waterway'." *Id*. at ftnt. 8. (Emphasis in original).

The second jurisdictional question dealt with the sufficiency of evidence that there were CWA wetlands on the BHA property. Citing significant evidence of a number of tributaries that connect to BHA, a high velocity tributary on the west portion of the property, and expert testimony regarding drainage and wetland patterns, the court found that the wetlands on BHA's property would be jurisdictional not only under the *Rapanos* plurality's test but also under the significant nexus test and the dissent's test. *Id*. at 9-10. Consequently, the court upheld the jury's finding of knowingly causing the discharge of pollutants from a point source into waters of the United States without a 404 permit.

The defendants also alleged that the CWA's application to wetlands was unconstitutionally vague. Though multiple agencies had warned defendants that they were violating the CWA, the court found that, even without such warnings, the presence of creeks and tributaries leading to the Gulf of Mexico should have alerted "men of common intelligence" to the potential that these were CWA wetlands. *Id*. at 11.

The final jurisdictional question addressed CWA regulation of septic systems—whether they are point sources, as the government argued, and whether they require Section 402 National Pollutant Discharge Elimination System (NPDES) permits. Defendants argued that septic systems are not subject to NPDES permitting because they are exempted from the definition of treatment works which are required to be permitted under 40 C.F.R § 122.1(b)(2). The Court, however, found that §122.1(b)(2) imposes sewage sludge disposal requirements while § 122.1(b)(1) identifies point sources requiring an NPDES permit. Additionally, the BHA septic systems meet the definition of containers and therefore constitute point sources. The court went on to say that "by the language of the Act the septic systems at issue in this case are point sources that discharged pollutants into water of the United States and required NPDES permits" and cited *Rapanos* as supporting this position. *Id*. at 19.

Defendants also attempted, to no avail, to distinguish between the discharger of a pollutant and the person causing the discharge, arguing that the individual lot owners were the dischargers and, therefore, responsible for obtaining NPDES permits. Though defendants' personal waste did not enter the wetlands, the Court found the defendants' actions in designing, certifying, and constructing the septic systems to be the "cause" of the septic systems operation and unlawful discharge.

The remaining twenty-three pages of the opinion address mail fraud and conspiracy as well as the use of federal sentencing guidelines in the imposition of $15,000 fines on each defendant, Lucas' imprisonment for 108 months, and prison terms of eighty-seven months for Wrigley and Thompson, all of which were upheld.

Carol L. Lear *practices in the legal department of Chevron U.S.A. Inc., in Houston, Texas. Contact her at clear@chevron.com.*

LIKE TO WRITE?

The Water Quality and Wetlands Committee welcomes the participation of members who are interested in preparing this newsletter.

If you would like to lend a hand by writing, editing, identifying authors, or identifying issues please contact one of the editors: Tara W. Duhy (tduhy@llw-law.com), W. Blaine Early (bearly@stites.com), Beth S. Gotthelf (gotthelf@butzel.com), Steve Kelton (steve.kelton@hklaw.com), and Jeff Kray jkray@martenlaw.com).