

Chapter 26

Water Availability and Use Issues — Is Water the New Oil?

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§ 26.01. Introduction to Water Availability and Use Issues.

Rising demand for water due to population growth and urbanization, coupled with unpredictable weather patterns and widespread droughts, presents formidable challenges for governments and companies alike. A report prepared by the Organisation for Economic Co-operation and Development (OECD) projects that by 2050 more than 40 percent of the world's population will reside in river basins under severe water stress.¹ In that same period, the report anticipates that world-wide water use will increase 55 percent.² Climate issues could amplify the already intense competition over water and energy resources. Thus, the current and future availability of water will remain of vital concern for businesses, especially those operating in areas undergoing severe drought conditions.

Litigation and administrative challenges over surface water and groundwater rights have increased in recent years. Industrial users, farmers and ranchers, power generators, cities, and environmental advocates all lay claim to limited water resources. As a result, businesses — particularly large industrial water users — should carefully evaluate their access to water and vigilantly monitor efforts by others to interpret, expand, and amend their water rights.

Companies seeking to understand the risks of increased water scarcity and secure reliable supplies need to understand regulatory trends and litigation involving water rights, much of which occurs at the state level. At the same time, many river systems are subject to interstate compacts and the oversight of interstate river basin commissions. International agreements and treaties further confine the ability of states and nations, as well as companies doing business within their borders, to access and appropriate major water bodies.

The legal framework for water rights — whether at the local, state, federal, or international level — is in constant flux. Water scarcity is a

¹ Leflaive, X., *et al.*, “Water,” OECD *Environmental Outlook to 2050* (2012).

² Organisation for Economic Co-operation and Development, *Water Security for Better Lives* (2013). The report defines river basins under severe “water stress” as those where withdrawals exceed forty percent of available resources.

key driver of recent policy initiatives, regulatory changes, and litigation. The combination of drought, increased population and urbanization, and economic development, is forcing lawmakers to consider whether changes to long-standing water rights systems are necessary to address risks of inadequate and unreliable water supplies.

This chapter focuses primarily on recent developments in Texas water law and regulations, although regulations in California and the Mid-Atlantic States are also discussed. There are several reasons for this emphasis. First and foremost, Texas (and California) is experiencing population growth and drought, paired with the rapid development of shale and tight oil formations, and the associated demand for the water necessary to support this development. As a result, the Texas Legislature, Texas agencies, and state and federal courts in Texas are wrestling with water rights issues. Regulators and the public are also subjecting water use by oil and gas operations to greater scrutiny than ever before. Due to Texas' economic clout and status as a bellwether for oil and gas development, legal and industry trends in Texas may influence other states that are confronting similar issues. Companies that are concerned about the security of their water rights and assets should monitor these developments closely.

This chapter also explores significant issues in the law concerning surface water and groundwater to establish a basic framework for understanding recent regulatory developments and judicial decisions. With that framework established, this chapter then surveys a selection of recent rulings and regulations to elucidate how both law and policy can shape and, in turn, be shaped by water shortages. Finally, the chapter considers recent regulatory changes and industry innovations that promote sustainable water management and mitigate the risks of water scarcity.

§ 26.02. Surface Water: Rights and Risks.

This section focuses on laws and institutions related to surface water rights, specifically the right to divert, produce, or use surface water. The purpose of this section is to provide the reader with a basic understanding of the concepts and principles governing surface water rights. This section also addresses several significant legal developments regarding surface water