

Urban Runoff, Its Consequences, and the Problems of Regulation

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Three years ago, the Chapman University School of Law and the Chapman Law Review held a symposium entitled “Wet Growth: Should Water Law Control Land Use?” The symposium explored the issue of whether water law could be an effective tool for managing growth and development. Building on this cutting-edge symposium, this year the Chapman Law Review hosted a symposium entitled “The Slippery Slope: Urban Runoff, Water Quality, and the Issue of Legal Authority.” This year’s symposium brought together an impressive set of nationally recognized scholars to discuss the issues surrounding urban runoff—its health, environmental, and social consequences, and the challenges with regulating this complex field. The symposium attracted a noteworthy group of attendees, including other scholars in the field, practitioners, government regulators, and interested students. The symposium panels were engaging and informative and challenged those in attendance and those who study this field to reconceptualize many of the foundational premises and paradigms through which we have viewed urban runoff. This intellectual contribution to the field is further embodied in the important articles stemming from the symposium that are being published in this edition of the *Chapman Law Review*. And perhaps there was no better location for such a symposium than here in Southern California where issues of sprawl, intensive and extensive coastal development, and significant environmental concerns confront the tens of millions of residents in the region on a daily basis.

Urban runoff is the surface water from yards, streets, driveways, construction sites, and other developed properties that flow from their source to storm drains and in to other bodies of water such as our rivers, lakes, and oceans.¹ Such water runoff carries

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¹ See Francesca Ortiz, *The Tide is Nigh: Rethinking Urban Flood Management*, 9

with it various pollutants, such as oil, grease, metals, road salts, raw sewage, and other toxic chemicals that can affect coastal habitats and ecosystems, as well as threaten our water quality.² The issue of urban runoff has become one of the pivotal issues in environmental and land use scholarship because of the rise of urbanization in the last century. As flood plains and other undeveloped land have given way to urbanization, environmental and health concerns regarding urban runoff have captured the interest of lawmakers, environmentalists, and scholars. And this problematic relationship between nature and humankind may be further exacerbated with development, sprawl, and demographic trends. Indeed, as Professor Francesca Ortiz points out in her article, more than half of the United States population will live in a coastal area by 2010.³

Some of the articles in this volume detail the negative effects of urban runoff. Others detail the federal regulatory response to this dilemma, such as the Clean Water Act (CWA) and the Coastal Zone Management Act (CZMA).⁴ One author poses an interesting case study of an industry-specific example of how such regulations give rise to controversy: Professor Minan illustrates how storm water permit regulation for the construction industry can be incredibly complex—involving the federal, state, and local levels of government—and has even caused a circuit split in federal courts.⁵

While Professor Craig notes that there have been some successes with the CWA and the CZMA, especially as seen in the Santa Monica Bay here in Southern California,⁶ other panelists are more critical of the current federal regulatory regime. Professor Ortiz details the great expense of the National Flood Insurance Program, and she offers recommendations—such as improved risk assessment and flood control technology—that advance the goals of reducing the health and property risks

CHAP. L. REV. 435, 439 n.20 (2006); Robin Kundis Craig, *Urban Runoff and Ocean Water Quality in Southern California: What Tools Does the Clean Water Act Provide?*, 9 CHAP. L. REV. 313, 313 n.1 (2006); Donald J. Kochan, *Runoff and Reality: Externalities, Economics, and Traceability Issues in Urban Runoff Regulation*, 9 CHAP. L. REV. 409, 416 n.29, 417 n.31, 418 n.34 (2006); John H. Minan, *General Industrial Storm Water Permits and the Construction Industry: What Does the Clean Water Act Require?*, 9 CHAP. L. REV. 265, 276 nn.70–76 (2006).

² Ortiz, *supra* note 1; Craig, *supra* note 1, at 316 n.19, 323 n.53, 339 nn.161–62; Kochan, *supra* note 1, at 417 n.31, 418 nn.33–34; Minan, *supra* note 1.

³ See Ortiz, *supra* note 1, at 437 n.13.

⁴ See Craig, *supra* note 1; Minan, *supra* note 1; Ortiz, *supra* note 1.

⁵ See Minan, *supra* note 1, at 287–299.

⁶ See Craig, *supra* note 1, at 359–363.

caused by urban runoff.⁷ Through such recommendations, Professor Ortiz advocates for a paradigm shift that envisions stormwater as an ally rather than as an enemy.

Two panelists, Professors Malone and Wagner, question the efficacy of federal regulations aimed at urban runoff because of controversies involving the integrity of the science underlying such regulations. Professor Malone raises the specter of “junk science” and ponders whether meaningful regulatory reform can be accomplished in an era where junk science is used to justify laws, policies, and regulations that further a predetermined political agenda.⁸ Professor Wagner questions whether current urban runoff regulations are working because such programs do not account for inherent limitations in scientific and technological information associated with such regulations.⁹

Professor Wagner does offer up a potential solution to the current information problems that plague the urban runoff regulatory regime: the inter-connectedness such federal laws could have with state and local government regulations.¹⁰ And as Professor Wolf explains, the United States Supreme Court has provided guidance to local governments as to their powers and responsibilities in fulfilling their role in such a cooperative intergovernmental system in the area of environmental regulation.¹¹

However, perhaps a stronger regulatory regime may not be normatively desirable. As Professor Ortiz points out, controlling development can be a slippery slope to regulatory takings claims.¹² Moreover, Professor Kochan questions whether regulation is necessary when it is unclear whether such laws are effective and when there exist significant questions regarding traceability of harms in urban runoff.¹³ Professor Kochan raises provocative questions of whether economic realities suggest that a regulatory regime may not be the best avenue for tackling the urban runoff problem and that a market approach may prove

⁷ See Ortiz, *supra* note 1, at 443–460. [parts II and III of her paper]

⁸ See Linda A. Malone, *What do Snowmobiles, Mercury Emissions, Greenhouse Gases and Runoff Have in Common?: The Controversy of “Junk Science,”* 9 CHAP. L. REV. 365, 409–408 (2006).

⁹ See Wendy E. Wagner, *Stormy Regulation: The Problems that Result when Stormwater (and Other) Regulatory Programs Neglect to Account for Limitations in Scientific and Technical Information,* 9 CHAP. L. REV. 191 (2006).

¹⁰ See *id.* at 222–26.

¹¹ See Michael Allan Wolf, *Supreme Guidance for Wet Growth: Lessons from the High Court on the Powers and Responsibilities of Local Governments,* 9 CHAP. L. REV. 233 (2006).

¹² See Ortiz, *supra* note 1, at 447–449.

¹³ See Kochan, *supra* note 1, at 419–31.

more effective and fair given the concern of traceability.¹⁴

This symposium and the accompanying articles have forged new ground in analyzing and conceptualizing urban runoff regulation. While urban runoff and the appropriate regulatory responses to it will continue to spark great controversy and debate, this collective contribution will hopefully help shape and frame the discussion and, possibly, lead us to some workable solutions to this very complex problem.

¹⁴ *See id.*