

THE CULTURE OF FLUSHING: A SOCIAL AND LEGAL HISTORY OF SEWAGE BY JAMIE BENIDICKSON
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My first task is to insist that you not avoid this book because you agree with my teenage daughter that sewage is “just gross” and is therefore an inappropriate topic for polite company or scholarly attention. We must be willing to take the issue seriously and learn more about it, otherwise we help perpetuate what Professor Jamie Benidickson of the University of Ottawa in his new book calls the “impulse to flush and forget” that forms part of the “culture of flushing.”³ While billed as a history of sewage, this is more—a thoroughly researched, detailed, wide-ranging, and readable study of the social, political, scientific, and economic context and values that shaped the evolution of water pollution controls in Britain and North America over more than 100 years. The central message of this study continues to resonate in our environmental policies and practices today, so it is very much a topic worthy of our considered attention.

This book is a welcome addition to that unfortunately rare genre (especially in Canada) of environmental legal history. It marks a major achievement in helping us understand the forces that continue to shape our attitudes and responses—not just to water pollution but to broader environmental concerns. Although it is written by a law professor and includes stories from the case law and legislative arena, it will appeal to anyone interested in the foundations of Canadian environmental policy. For those seeking further information, there are extensive references and a helpful section of suggested readings at the end.

The primary focus of the book is mid-nineteenth to mid-twentieth century Britain, the eastern United States, and eastern Canada, all jurisdictions with relatively abundant water sources and all following a legal tradition of riparian rights. This comparative approach allows us to see that each country faced similar problems—though at

¹ [*The Culture of Flushing*].

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³ Benidickson, *supra* note 1 at 291.

slightly different times—and often addressed them in similar ways. It would have been interesting to know how water-scarce areas or different legal traditions addressed the same problems.

The Culture of Flushing addresses the period of dramatic population growth in urban areas resulting from industrialization. The challenge of the time was deciding what to do with the huge quantities of human waste concentrated in such locations—what Aldous Huxley called “the art of living together without turning the city into a dunghill”⁴ Meeting this challenge allowed major cities, including London, New York, Chicago, and Toronto, to grow.

The Culture of Flushing begins with a discussion of the common-law doctrines relating to water use as they stood on the eve of industrialization. Benidickson then traces the development of those doctrines as they were applied to resolve increasing numbers of conflicts between traditional and industrial uses of water. To summarize, the law shifted from a stance which protected the natural flow of rivers and streams, to a balancing of factors which would promote the “reasonable use” of waterways. Reasonable use came to incorporate all manner of industrial uses and abuses, and eventually reflected a dominant view of the inevitability of contamination as the price we pay for industrial development and the comforts of modern life. This shift in perspective took place “within the context of a wider range of considerations concerning individual liberty, progress and social advancement, [and] the relationship of the human species to the [earth].”⁵ This context ignored or downplayed the environmental value of the flow of water, and reflected an attitude that human use, even to the point of significant degradation, was expected and to be encouraged. Benidickson concludes: “The pernicious influence of this omission persists today.”⁶

Building on this foundation, Benidickson explains how the supply of water, previously delivered by private entities, became the responsibility of municipal governments. As cities grew quickly in the early nineteenth century, the number of water users without access to their own sources grew dramatically. To meet the demand for reliable supplies for fighting fires and domestic needs, cities themselves began to

⁴ *Ibid.* at 290, quoting Aldous Huxley, “Hyperion to a Satyr” in *Adonis and the Alphabet and Other Essays* (London: Chatto and Windus, 1975) at 147-48.

⁵ Benidickson, *ibid.* at 329.

⁶ *Ibid.* at 28.

assume this responsibility. Secure, communal sources were sought, and networks of mains and pipes were built to deliver water from these sources. “Underlying the adoption of municipal water supply systems and sanitary initiatives was an emerging vision of social and community advancement, which paralleled many of the themes associated with rising industrial demand for water.”⁷ Once in place, this infrastructure permanently transformed patterns of water usage and changed the expectations of burgeoning urban populations. A reliable water supply became associated with “civic pride and autonomy,” making cities attractive to investment and immigration. At the same time, in eastern North America abundant water supplies at little or no cost led to what continue to be the highest per capita rates of water use in the world, with little incentive for conservation.

The availability of water in large quantities to individual homes helped spur the popularity of the “water closet” and municipal sewerage over household privies and neighbourhood cesspools as the preferred means of getting rid of human waste. The use of the water closet was pushed by public health authorities and secured through regulation. Municipalities built public conveniences and networks of sewers to collect wastes and convey them to nearby surface waters, with little understanding of or concern for the consequences.

Once he traces this history, Benidickson’s thesis emerges. He claims that the change from localized, land-based disposal of sewage to “flushing,” that is, using water as the medium for sewage disposal, was initially promoted out of ignorance about the cause of disease. It was perpetuated by a combination of a misunderstanding about the ability of rivers and streams to purify themselves, an acceptance of environmental degradation as the unavoidable cost of industrial development and economic progress, and a dismissal of the environmental consequences of degraded waterways as mere inconveniences.

At first, the flushing of sewage was promoted as the solution to the widespread incidence of typhoid and cholera. The prevalent scientific view was that such diseases were spread through “miasma,” the stench from decaying organic matter that was thought to poison the air. People believed that if waste was immediately flushed away, the source of disease went with it. However, the result of the enthusiastic

⁷ *Ibid.* at 69.

conversion to toilets and sewers was not less disease, but more. Illnesses increased because it was not common to treat sewage prior to discharge, and drinking water was drawn from the same bodies of water into which sewers emptied. Any ability of water systems to purify themselves was overwhelmed by the volumes of sewage discharged. As the bacteriological source of disease became evident, pressure mounted for sewage treatment, but local governments resisted because of the high cost and uncertain effectiveness of treatment technologies. Then, techniques for treating water supplies through filtration and chlorination were developed and proved much cheaper and more effective. By the end of the First World War, this became the preferred method of dealing with the problem—do not bother treating the sewage beyond a minimal level to prevent nuisances, but treat drinking water supplies. This led to “decoupling the contamination of rivers, lakes and streams from the issue of drinking water quality,”⁸ based on the assumption that to do so would have no adverse impact on public health. It also led to a growing tolerance for surface-water contamination. By this time, the nature of the contamination was changing. Industrial wastes added an enormous toxic burden to waterways, in increasingly larger volumes.

The book stresses that the problems of cholera and typhoid were not limited to a dank Dickensian London, but in fact were part of life in North American cities. Particularly affected were the major cities around the Great Lakes, which had death rates higher than in Europe. A case in point is the story of Chicago and its efforts to solve this public health problem, which Benidickson examines.⁹ Through the well-known Chicago Diversion, the city used water from Lake Michigan to dilute sewage directed into the Chicago River, effectively reversing the flow of the river and sending the sewage of more than a million (eventually 2.5 million) people downstream into the Mississippi River system. This may have resolved a local problem and allowed Chicago to expand in population and economic influence, but it did so by pushing the pollution onto others downstream, by undermining other uses of the water and by lowering the levels of the Great Lakes. This is one of the consequences of a culture of flushing: we do not acknowledge our responsibility to those downstream; we protect one place at the expense

⁸ *Ibid.* at 234, quoting Robert Gottlieb, *Forcing the Spring: The Transformation of the American Environmental Movement* (Washington D.C.: Island Press, 1993) at 53-54.

⁹ Benidickson, *ibid.*, “The Dilutionary Impulse at Chicago,” c. 8, at 183.

of another. This is similar to other environmental problems where we cast away wastes or pollution into the commons, conveniently ignoring the fact that there is “no such place as away.”¹⁰

While the inevitability of water contamination was broadly accepted, it was also resisted. Throughout the period studied, Benidickson records legal challenges brought based on ancient common-law rights, including property, fishing, and navigation rights. These causes of action served as proxies for protecting water’s ecosystem functions, which have no legal protection in the common law. The results of these challenges were mixed, with some significant successes and many failures. Benidickson points out the limitations of using the common law for this purpose, and questions whether private litigants can be effective instruments of environmental protection. My reading of these cases leads me to the view that private litigation provided a remedy in some cases and helped raise awareness, which contributed to social and legal change, but that litigation alone was insufficient to stem the dominant view and trigger wholesale change.

Over time, pressure increased on legislatures to respond to water pollution. Laws were passed to require wastewater treatment, but there were many exemptions and loopholes, and little appetite for enforcement. Permit regimes were introduced, but it was difficult to establish meaningful standards to guide how much pollution should be allowed to be discharged to waterways. Industry resisted high standards, and governments conceded the free use of water for waste disposal up to a point of unreasonable impact, which the government found difficult to prove. With some exceptions, this relative view of pollution remains part of our environmental laws.

The book does bring the story up to the present, although without the level of detailed discussion devoted to the earlier eras, presumably because the more recent decades are already well-documented in related literature. One of the most interesting questions raised by this history is why attitudes changed when they did. Clearly, the roots of change and resistance go very far back and did not appear suddenly in the 1960s. Benidickson points to advocacy, international opinion, and mounting public pressure as key motivators of institutional and regulatory change. Other factors, such as growing scientific

¹⁰ *Ibid.* at 234.

understanding of the problems, visual evidence of pervasive contamination, media coverage of high profile disasters, political and economic forces, and so on, also contributed to this complex phenomenon.

We may want to think of this narrative as ancient history from which we were delivered by the environmental movement. However, Benidickson emphasizes that the culture of flushing remains strong. Without a doubt, there is much less tolerance for water contamination and a greater understanding of the significance of the ecological and economic benefits provided by clean water. However, the physical legacy of the culture of flushing remains in the sediments of our lakes, rivers and harbours, and new threats to water quality continue to follow “the routes pioneered by domestic sewage, organic industrial wastes, and then production chemicals and heavy metals.”¹¹ The psychological legacy of flushing helps to explain the tragedy of Walkerton, wherein the public took for granted the quality of its water supply and the effectiveness of its wastewater disposal systems, and relied on a government and individuals who disregarded or underappreciated the significance of their responsibilities. In response, the Ontario government dramatically improved the provincial safeguards on drinking water, but so far has failed to deliver on a 1988 promise to improve its municipal sewage treatment.¹²

In Canada, there are still communities with minimal or no sewage treatment, including most famously the city of Victoria, although even there change is underway.¹³ Sewage treatment plants have a poor record of compliance with water pollution control standards and are among the most significant contributors to surface water pollution, while poorly maintained septic tanks contribute to groundwater contamination in rural areas. The cost to rebuild and upgrade basic sewage infrastructure in Canada is estimated to be between \$30 billion and \$40 billion. This cost is well beyond the financial capacity of

¹¹ *Ibid.* at 323.

¹² Environmental Commissioner of Ontario, *Choosing Our Legacy: 2003-2004 Annual Report*, (Toronto: Environmental Commissioner of Ontario, 2004), online: <<http://www.eco.on.ca/english/publicat/ar2003.pdf>> at 36-37.

¹³ Ecojustice (formerly Sierra Legal Defence Fund), *The National Sewage Report Card: Grading the Sewage Treatment of 22 Canadian Cities*, Number 3, September 2004, online: <http://www.ecojustice.ca/reports/sewage_report_card_III.pdf>.

municipal governments but was ignored for decades by senior governments seeking to cut deficits. In 2007, the effort to agree on national standards for municipal wastewater effluent is still not complete. Beyond the industrialized world, 2.6 billion people live without access to basic sanitation, leading directly to disease and more than 1.5 million child deaths every year. Even if the Canadian public is not clamouring for better sewage treatment, given how easy it is to flush and forget, we need political leaders who will accept responsibility for securing the funds and making this a priority.

Benidickson ends his book optimistically, suggesting that the lessons of the past can be “used to direct wise and informed action in the future.”¹⁴ Some of the debates of the past continue to be relevant today: Should water and sanitation be provided by public or private entities? Which level of government should be responsible for ensuring water quality? How effective are litigation and common-law remedies in securing environmental integrity as compared with regulation? What is an appropriate balance between environmental protection and economic development? Certainly one of the most important lessons from this book is that ignoring or systematically undervaluing environmental protection in favour of short-term economic progress results in unexpected adverse consequences that eventually affect us all. Perhaps it will only take another generation, as Benidickson predicts, but it will be a hard task to motivate our civilization to move beyond a culture of flushing and find a sustainable balance between human demands and respect for the environment.

¹⁴ Benidickson, *supra* note 1 at 331.