The Promise of Privatization

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INTRODUCTION[1]

The mid-1980s marked the beginning of a worldwide trend toward the privatization of public enterprises. Inspired by the United Kingdom – in particular, the 1984 British Telecom share issue – the governments of Denmark, Italy, Chile, Malaysia, and Singapore adopted privatization programs in 1985.[2] More than 100 countries soon followed suit, prompting a research manager for the World Bank to, in 1998, call privatization "a defining feature of the last two decades."[3]

Popular candidates for early privatizations included telecommunications and electric power utilities.[4] Water and wastewater utilities soon followed, haltingly at first and then with greater momentum. In 1997, *World Water and Environmental Engineering* magazine noted "a seemingly irreversible and rising tide of private sector involvement in the provision of water supply and sewage treatment services all around the globe."[5] By the end of 2000, at least 93 countries had partially privatized water or wastewater services or were in the process of doing so. Privatizers appeared in all regions of the world. They included local, provincial, or national governments in North America's three countries, 23 countries in Latin America and the Caribbean, 20 in Europe, 30 in Africa and the Middle East, and 17 in Asia and the Far East.[6] Water companies now serve vast numbers of consumers. Suez Lyonnaise des Eaux, for example, provides water and/or wastewater services to 110 million people.[7]

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[1] I am grateful to Geoffrey Patridge, Lisa Peryman and Krystyn Tully for their research assistance.

[2] William L. Megginson, Robert C. Nash, and Matthias van Randenborgh, "The Financial and Operating Performance of Newly Privatized Firms: An International Empirical Analysis," in *The Privatization Process: A Worldwide Perspective*, ed. Terry L. Anderson and Peter J. Hill (Lanham, Maryland: Rowman & Littlefield, 1996), p. 127.

[3] Mary M. Shirley, *Trends in Privatization* (Washington: Center for International Private Enterprise, 1998), pp. 1-3. Robert W. Poole Jr., "Privatization for Economic Development," in *The Privatization Process*, *op. cit.*, p. 16.

[4] Poole, "Privatization for Economic Development," *op. cit.*, p. 16.

[5] Carl Myers, "Privatisation: value for money?" *World Water and Environmental Engineering*, March 1997, Vol. 20, No. 3, p. 10.

[6] *Public Works Financing: 1999 International Major Projects Survey*, pp. 8-10, and *Public Works Financing: 2000 International Major Projects Survey*, pp. 10-12, summarize recent private water and wastewater projects in 67 countries. *Public Works Financing*'s monthly reports provide greater detail on many of the transactions. Other privatizing countries are discussed in Alex Orwin, *The Privatization of Water and Wastewater Utilities: An International Survey* (Toronto: Environment Probe, 1999); *World Water and Environmental Engineering*; Fitzroy Nation and Andrew Nickson, *Liquid Assets: Is water privatization the answer to access?*, Panos Media Briefing No. 29 (London: The Panos Institute, July/August 1998), pp. 7-8; and Frannie Leautier, "Public Private Partnerships in Infrastructure: Lessons from Developing Countries," presentation to *Narrowing the Gap*, conference sponsored by Canadian Council for Public-Private Partnerships, November 27, 2000.

[7] Lyonnaise des Eaux, "Lyonnaise des Eaux Signs the Water Management Contract of Johannesburg," Press Release, February 14, 2001.

Kingdom, many subsequent privatizers do not share her conservative ideology. Indeed, even staunchly communist governments are privatizing. Cuba has formed a joint venture with a Spanish water company to develop and operate drinking water systems for three cities over the next 25 years.[8] China has signed contracts for the construction and operation of three water supply systems and has contracted out the operation of at least 20 other water and wastewater facilities.[9] Vietnam has given two Malaysian-led consortia long-term contracts to build and operate a water pipeline and two treatment plants for Ho Chi Minh City.[10] Pragmatism, rather than ideology, drives most privatizations.

The privatization of water and wastewater utilities is attractive for a host of reasons that vary among countries. Governments commonly call on the private sector to invest in desperately needed infrastructure that they could not otherwise afford. The private sector has access to enormous pools of capital. The size of Suez Lyonnaise des Eaux's war chest would enable it to invest almost US$8 billion a year without borrowing money.[11] Private capital obviates the need for governments to borrow money or raise taxes, reducing their financial and political liabilities. Privatization carries other financial benefits as well: Proceeds from sales, concession fees, and tax revenues from privatized operations enable governments to invest in neglected infrastructure or reduce their debts.

Many governments privatize to increase the effectiveness of their water and wastewater systems. Struggling to comply with health and environmental standards, they turn to firms whose many years of experience and large investments in research and development have enabled them to develop a degree of expertise rarely found in the public sector. Governments that privatize also want to improve the economic performance of their utilities. The pursuit of job creation or other social goals has left many public utilities over-staffed and inefficient. Free from public-sector practices that hinder productivity and innovation, and able to take advantage of expertise and economies of scale, the private sector enjoys greater latitude to pursue efficiencies. Disciplined by competition and capital markets, it has powerful incentives to do so.

Privatization may correct other inefficiencies as well: those associated with the underpricing of water and wastewater services. Politicized decision making in the public sector distorts the relationship between prices and costs and encourages subsidies to various interest groups. Shifting responsibility to the private sector often allows governments to discontinue subsidies. In a fully competitive, or alternatively, a well regulated system, competition or regulation sets

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[8] "Havana water to Agbar," *Public Works Financing*, Vol. 126, February 1999, pp. 8-9; and "Cuba taps Spain for water concession," *Public Works Financing*, Vol. 132, September 1999, p. 5.

[9] "ADB loan for Chengdu water" and "Lyonnaise/New World in Chinese water," *Public Works Financing*, Vol. 128, April 1999, p. 25; "Road King/Anglian eye China water," *Public Works Financing*, Vol. 132, September 1999, p. 15; and "Beijing water RFP," *Public Works Financing*, Vol. 132, September 1999, p. 15.

[10] "Vietnamese water deal agreed" and "Binh An BOT water plant startup," *Public Works Financing*, Vol. 131, July/August 1999, pp. 22, 23.

[11] David Owen, Samer Iskandar, and Andrew Taylor, "Making a big splash," *Financial Times*, August 24, 1999.

prices that better reflect costs. Governments have fewer reasons to oppose accurate pricing – the private providers take most of the heat for price increases – and, in any case, have no authority to interfere with the markets' or regulators' decisions.

Privatization also allows for the de-politicization of environmental and health regulation. Governments that own, operate, and finance water and wastewater utilities cannot properly regulate them. All too often, conflicts of interest prevent them from enforcing compliance with laws and regulations. Privatization reduces those conflicts, freeing regulators to regulate and increasing the accountability of all parties.

For the above reasons, governments around the world have come to accept that their core function is to "steer rather than row."[12] Rather than owning, operating, and financing water and sewage works, they are setting policy. Rather than providing services, they are regulating them. As evidenced in the following chapters, the results of this shift have often – but not always – been impressive.

The owners, operators, funders, and regulators of Ontario's water and wastewater systems have much to learn from other jurisdictions' experiments with privatization. And they have no shortage of reasons to conduct experiments of their own. Across the province, hundreds of facilities fail to comply with provincial laws and standards. Many are inefficiently run: Some are grossly overstaffed; others are staffed by insufficiently trained operators. Many are in need of upgrades: One estimate of the investment required over 15 years exceeds $32 billion.[13] Water charges are insufficient to cover these costs. Clearly, many systems would benefit from the capital investment, expertise, efficiency, and accountability that privatization can bring.

The following chapters will examine what has worked, what has not worked, and why. They will focus on privatization in the United States, the United Kingdom, and Canada, those jurisdictions for which the most detailed information is available, whose experience is most similar to our own, and from whom we can learn the clearest lessons.

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[12] This phrase, coined by E.S. Savas, was popularized by David Osborne and Ted Gaebler in *Reinventing Government* (Reading, Massachusetts: Addison-Wesley, 1992).

[13] Canadian Water and Wastewater Association, *Municipal Water and Wastewater Infrastructure: Estimated Investment Needs 1997-2012*, revised April 1998, p. 27.

WATER AND WASTEWATER UTILITY PRIVATIZATION IN THE UNITED STATES

Although new to much of the globe, the water and wastewater privatizations of the last ten years built on a centuries-old tradition of private ownership and management in several western countries, including the United States. Private companies have supplied water to U.S. consumers since 1652, when the Water Works Company of Boston was established. At the beginning of the 19th century, private water companies served 94 percent of the U.S. market. Their share of the market fell as governments stepped in to service unprofitable areas. By the end of the century, their share had fallen to 47 percent.[14] It continued to fall, past 30 percent in 1910[15] to below 15 percent by 1986.[16]

A survey conducted in 1995 by the United States Environmental Protection Agency (EPA) found that 28,500 privately owned water systems served approximately 14 percent of the U.S. population.[17] These private systems were primarily located in small communities. Nonetheless, private systems did appear in many larger communities. Twelve percent of the systems serving more than 10,000 people were privately owned.[18] The EPA did not calculate the number of privately owned wastewater facilities. Its privatization coordinator estimated the number to be in the low thousands, primarily in trailer parks and small developments. A study that year by the National Regulatory Research Institute reported that public utility commissions regulated approximately 1,300 small, privately owned wastewater systems in 28 states.[19]

The more common approach to privatization in larger U.S. municipalities is the contracting out of the operation and maintenance of publicly owned water and sewage utilities. Burlingame, California, introduced this approach to the U.S. in 1972, when it contracted with Envirotech Operating Services to operate its wastewater treatment plant. Such contracts remained fairly rare in the 1980s, covering perhaps a few hundred facilities. The 1990s saw a rapid increase in their numbers. In 2000, 17 private firms surveyed by *Public Works Financing* operated 2,273 facilities

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[14] Janice A. Beecher, G. Richard Dreese, and John D. Stanford, *Regulatory Implications of Water and Wastewater Utility Privatization* (Columbus, Ohio: The National Regulatory Research Institute, July 1995), p. 21.

[15] David T. Beito, "From Privies to Boulevards: The Private Supply of Infrastructure in the United States during the Nineteenth Century," in *Development by Consent: The Voluntary Supply of Public Goods and Services*, ed. Jerry Jenkins and David E. Sisk (San Francisco: Institute for Contemporary Studies Press, 1993), pp. 25-6, 46-7.

[16] David Haarmeyer, *Privatizing Infrastructure: Options for Municipal Water-Supply Systems*, Policy Study No. 151 (Los Angeles: Reason Foundation, October 1992), p. 4.

[17] United States Environmental Protection Agency, *1995 Community Water System Survey: Overview, Volume I*, EPA #815R97001A, pp. 7-8.

[18] United States Environmental Protection Agency, *Small Water System Characteristics*, prepared by the Cadmus Group using data from *1995 Community Water System Survey*, draft dated January 7, 1999.

[19] Beecher, Dreese, and Stanford, *op. cit.*, p. 23.

for 1,882 public clients.[20] Cities contracting out water system operations now include Atlanta, Seattle, Houston, and Tampa. Those contracting out sewage system operations include Indianapolis, Milwaukee, New Orleans, and Cincinnati. Many more, including some of the country's largest cities, have been reported to be studying privatization options.

Why Privatize?

Although U.S. communities are embracing – or returning to – privately owned, financed, constructed, or operated water and wastewater systems for a variety of reasons, there is one overarching theme: Financially stressed communities with inadequate infrastructure cannot meet tough health and environmental standards on their own.

Many communities have found it difficult to comply with the Safe Drinking Water Act. In 1996, the EPA warned that one out of every five people received water from a facility that violated a national safety requirement.[21] That year, 5151 community water systems violated the EPA's maximum contaminant levels or treatment technique requirements; in addition, 15,182 community water systems violated monitoring and reporting requirements.[22] Serious problems remained in 1999, when the EPA reported that one out of every ten people was served by a water system reporting a health standard violation. The agency attributed at least a half-million cases of illness to microbial contamination in drinking water.[23] Many of these problems can be traced to inadequate infrastructure. Older distribution systems are deteriorating. Over one-third of the systems providing surface water need to install, replace, or upgrade filtration plants. Two-thirds of water systems need to improve storage facilities.[24]

Many communities have also failed to comply with the Clean Water Act, the major federal law governing sewage treatment. The U.S. Public Interest Research Group charged that 21 percent of major municipal facilities were significantly non-compliant with their permits during at least one quarter from January 1995 to March 1996.[25] The EPA has proposed expanding permitting under the Clean Water Act to reduce sanitary sewer overflows. Since at least 40,000 overflows occur

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[20] William G. Reinhardt, "U.S. Water/Wastewater Contract Services Show 16% Growth to $1.7 Billion in 2000," *Public Works Financing*, Vol. 149, March 2001, p. 2.

[21] United States Environmental Protection Agency, *Liquid Assets: A Summertime Perspective on the Importance of Clean Water to the Nation's Economy* , EPA #800-R-96-002, May 1996, p. v.

[22] United States Environmental Protection Agency, *Providing Safe Drinking Water in America: 1996 National Public Water System Annual Compliance Report*, EPA #305/R-98-001, September 1998.

[23] United States Environmental Protection Agency, *Liquid Assets 2000: America's Water Resources at a Turning Point*, EPA #840-B-00-001, May 2000.

[24] Nicolas Spulber and Asghar Sabbaghi, *Economics of Water Resources: From Regulation to Privatization*, Second Edition (Boston: Kluwer Academic Publishers, 1998), pp. 200-02.

[25] "'Dirty water acts' revealed by new report," *World Water and Environmental Engineering*, Vol. 20, No. 5, May 1997, p. 6.

each year, such a change will likely increase non-compliance figures.[26]

The challenges presented by the Safe Drinking Water Act and the Clean Water Act have driven many privatizations. In 1998, the Hudson Institute surveyed 29 water management contracts or asset sales in 11 states. Compliance with standards was the primary driver of privatization in 34 percent of the projects surveyed and the secondary driver in another 43 percent of the projects.[27] Clearly, many communities hope, along with the EPA, that "where local governments have had difficulty meeting permit limits, privatization may result in real environmental benefits."[28] One state – Georgia – is so confident that private expertise will increase compliance that it has passed a law requiring the owners of all large, chronically non-complying sewage treatment plants to contract out their operations and maintenance for between ten and 50 years.

One key factor in the private sector's ability to help communities achieve health and environmental compliance is financial. Estimates of the investments required in water and wastewater systems over 20 years vary. The EPA predicts that communities across the country will need to invest US$372 billion.[29] Others' estimates are much higher. The Water Infrastructure Network – comprised of state government organizations, local elected officials, environmental organizations, and industry associations – puts the cost at nearly $1 trillion.[30]

The required investments often overwhelm local governments that have to balance their budgets, are at the limit of their borrowing capacity, and fear voter opposition to tax increases. Local governments cannot count on federal assistance, since long-generous grant programs have been scaled back in recent years. As a result, many turn to the private sector for help. Bringing in private capital frees up public funds for more visible or politically popular projects. Privatization may also create income for municipalities, from the one-time windfall resulting from an asset sale, from concession fees, or from property taxes levied against private firms. Indeed, the financial attractions of privatization are so pronounced that many water and wastewater industry analysts simply assume that economic issues drive privatization. Typical are the words of privatization consultant Skip Stitt: "What's causing people to look at private management, and to a lesser degree private ownership, is simply money."[31]

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[26] United States Environmental Protection Agency, Office of Wastewater Management, "Proposed Rule to Protect Communities from Overflowing Sewers," EPA #833-01-F-001, January 2001.

[27] Hudson Institute, *The NAWC Privatization Study: A Survey of the Use of Public-Private Partnerships in the Drinking Water Utility Sector* (Washington: National Association of Water Companies, June 1999), pp. 26, 31, 50.

[28] United States Environmental Protection Agency, *Response to Congress on Privatization of Wastewater Facilities*, EPA #832-R-97-001a, July 1997, p. 7.

[29] "U.S. wastewater infrastructure needs $700Bn investment through 2015," *Edie Weekly Summaries*, April 16, 1999; and Hudson Institute, *op. cit.*, pp. 12, 19-20.

[30] Water Infrastructure Network, *Clean and Safe Drinking Water for the 21st Century*, April 2000, p. ES-1.

[31] Skip Stitt, in *Water Delivery Systems: An International Comparison*, Unedited transcript of panel discussion hosted by the Canadian Council for Public-Private Partnerships, Toronto, November 1998, p. 13.

Case studies confirm the role of fiscal pressures in the decision to privatize. Of the projects surveyed by the Hudson Institute, 62 percent cited financial reasons for privatizing. While half of these pointed to their need to reduce operating deficits or cut costs, the other half emphasized their need for capital investment – ranging from US$25,000 to US$250 million – as the primary driver of privatization. Another 31 percent of those surveyed cited financial issues as the secondary driver of privatization.[32] In a study of 30 water or wastewater privatizations in 16 states, prepared for the National Regulatory Research Institute, the need for funding for capital improvements tied with environmental compliance issues as the most often mentioned reason for privatization.[33]

Municipalities also privatize in hope that any capital – public or private – that is invested will be used more efficiently. Efficiencies can lower both capital and operating costs, freeing up money for other investments or reducing the rates charged to consumers. Governments are notoriously inefficient providers of water and wastewater services. Public servants have neither the tools nor the incentives to operate systems efficiently. Insufficient training has long plagued municipal wastewater systems across the U.S.[34] Constrained by rigid rules and procedures and given little discretion to operate creatively, even well trained workers can make but poor use of their knowledge. Worse, they are rarely held accountable for their actions: They are neither rewarded for increased efficiency nor punished for poor performance. These factors contribute to the "bureaucratic inertia" complained of in a report on privatization prepared for the Joint Economic Committee of Congress. That report noted that politicians also behave inefficiently, but for different reasons: "To win elections, politicians face strong incentives to confer benefits on narrow constituencies – like particular ... subgroups of public employees – and spread the costs across all taxpayers. Concentrating benefits and dispersing costs is a tried and true formula for reelection."[35] In other words, politicians face strong incentives to operate water and wastewater systems inefficiently, particularly by wastefully increasing staffing levels.

The incentives work differently in the private sector. Competition for contracts or sales motivates bidders to reduce costs. Even after securing business, owners or operators cannot relax. Under many contractual or regulatory arrangements, the profit motive spurs continuing efficiencies. The compensation of staff and management alike may be tied to performance. Poorly performing individuals may be fired. As John Stokes, president and CEO of Azurix North America, explained, "People who jeopardize the company are not tolerated."[36] Poorly performing firms may also be held accountable. Their shareholders may desert them. Falling

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[32] Hudson Institute, *op. cit.*, executive summary and pp. 28-9.

[33] Beecher, Dreese, and Stanford, *op. cit.*, pp. 67, 69, 72.

[34] Holly June Stiefel, *Municipal Wastewater Treatment: Privatization and Compliance*, Policy Study No. 175 (Los Angeles: Reason Foundation, February 1994), pp. 6-9.

[35] Jerry Ellig, *The $7.7 Billion Mistake: Federal Barriers to State and Local Privatization*, Joint Economic Committee Staff Report, February 1996, pp. 2-3.

[36] John Stokes, meeting with Elizabeth Brubaker and Mark Hudson, February 9, 2001.

stock prices may raise the cost of capital beyond that of more successful competitors. They may face the threat of a takeover. Furthermore, a tarnished reputation may prevent them from winning other contracts. Such incentives to perform can promote a host of innovations and efficiencies. Potential savings are tremendous: The BTI Consulting Group estimates that municipal utilities could save US$25 billion a year by adopting the industry's best management practices.[37]

When developing efficient approaches to construction, operation, and management, firms call on years – in some cases, centuries – of experience. Many of the U.S.'s largest investor-owned water utilities were founded in the nineteenth century. New Jersey's Elizabethtown Water Company was founded in 1845, the San Jose Water Company in 1866, the Indianapolis Water Company in 1867, and the American Water Works Company in 1886. The world's two largest private water companies – both French firms with U.S. operations – also have long histories: Vivendi, whose U.S. subsidiary is USFilter, traces its roots to 1853, while Suez Lyonnaise des Eaux, parent of United Water, dates back to 1880. Several water companies enhance the expertise they have gained from past experience with investments in innovation. In 1999, Vivendi and Suez Lyonnaise des Eaux invested almost US$200 million between them on research and development in the water sector.[38] Not surprisingly, investments of that magnitude have led to a number of important innovations for micro-filtration, pollution detection, remote monitoring of leakage from underground water mains, metering, and flow management. The resulting knowledge of state-of-art-technological solutions is dispersed throughout a network of hundreds or even thousands of employees whose expertise can be harnessed to solve local problems. Few, if any, municipalities can match such expertise. As they face increasingly complex technical challenges, the limitations of their staff hinder their ability to meet health and environmental requirements. Many have reached the point where, in Mr. Stitt's words, they "simply can't get it done without private expertise."[39]

There remains one category of reasons that U.S. municipalities give for privatizing their water and wastewater systems. Under the loose heading of depoliticization, this category includes goals as disparate as increasing accountability through clearly stated contractual obligations, bringing the pricing of water and wastewater services – which are notoriously underpriced and overused in the U.S. – in line with costs, and limiting government. The latter is especially common. In interviews with 117 officials, the General Accounting Office learned that governments are privatizing in large part to reduce the scope and size of government.[40] Since the private sector has demonstrated its ability to supply water and wastewater services efficiently

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[37] "The Right Price for Water," *Public Works Financing*, Vol. 127, March 1999, p. 17.

[38] John-Thor Dahlburg, "Water Companies: Tap Water Around the World Developing a French Flavor," *Los Angeles Times*, April 30, 2000.

[39] Stitt, *op. cit.*, p. 13.

[40] United States General Accounting Office, *Privatization: Lessons Learned by State and Local Governments*, Report to the Chairman, House Republican Task Force on Privatization, GAO/GGD-97-48, March 1997, pp. 6-7, 26-30.

and effectively, many communities feel that there is no obvious need to do so themselves. Communities are increasingly agreeing with New York Governor Mario Cuomo's statement that "the purpose of government is to make sure services are provided, not necessarily to provide services."[41]

Although the above generalizations describe most communities' reasons for selling or contracting out the operations of their water and wastewater systems, they are by no means the only factors exerting influence. Such decisions also reflect policies emerging from several federal bodies. Changes in federal tax policies have at various times raised and lowered incentives for private investment in infrastructure. Executive orders – such as those signed by President Bush in 1992 and by President Clinton two years later – have encouraged privatization by reducing regulatory impediments and assisting local initiatives. Congress, concerned about its ability to fund needy systems, has pushed for the removal of barriers to privatization. Likewise, the EPA has become an enthusiastic proponent of privatization. It established a Public-Private Partnerships Initiative, later renamed Partners Rebuilding America, to encourage municipalities to meet infrastructure needs with private financing. To assist municipalities in privatizing, the agency publishes case studies of privatization successes, a "self-help guide" for municipalities that wish to engage in public-private partnerships, and other materials providing guidance on financing options, partnership arrangements, and contract development.

The Results

Privatization in the U.S. has, on the whole, lived up to its promise, both financially and environmentally. Although no comprehensive data exists concerning the extent of capital investment, the experience of individual municipalities and firms suggests that water companies have invested considerable sums in infrastructure. United Water, for example, has invested almost US$10 million in advanced technologies for Atlanta's drinking water system.[42] The Hudson Institute's survey found that private firms that purchased or leased facilities invested far more than those that merely operated facilities. The 16 firms involved in operations and maintenance contracts or outsourcing agreements made no significant capital expenditures. In contrast, the nine firms that purchased assets invested US$38 million in new or upgraded facilities and equipment (exclusive of acquisition costs), while the four involved in long-term leases invested US$18 million.[43]

A legion of efficiencies has brought tremendous savings from privatization. By streamlining finance, design and engineering, procurement, and construction practices, private firms have reduced construction times and costs. Free from political constraints, they have cut staffing

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[41] Stuart Butler, "Privatization for Public Purposes," in *Privatization and Its Alternatives*, ed. William T. Gormley, Jr. (Madison: The University of Wisconsin Press, 1991), p. 24.

[42] United Water, *1999 Annual Report*, p. 13.

[43] Hudson Institute, *op. cit.*, pp. 35, 39.

levels. They have invested in costly equipment promising long-term savings. They have developed innovative management information systems and data processing technologies to improve cash flows, accounting, metering, billing, and debt collection. Large firms have taken advantage of bulk prices for chemicals and other supplies and have benefited from economies of scale in design, expertise, and equipment. The resulting savings have been, in the words of Mr. Stitt, "just mind boggling."[44]

Numerous studies give credence to such enthusiasm. Trent University economist Harry Kitchen reviewed three U.S. studies from the late 1970s. One study of 112 water suppliers found public firms to be 40 percent less productive than their private counterparts. When one of the public suppliers became private, the output per employee increased by 25 percent. Conversely, when one of the private suppliers became public, the output per employee declined by 40 percent. A second study of 143 water suppliers found costs to be 15 percent higher for public firms. A third study found public modes to be 20 percent more expensive.[45]

The Reason Foundation has repeatedly found private firms to be considerably more efficient than their public counterparts. A 1992 study concluded that contracting out water services achieved operating cost savings of between 20 and 50 percent. Examples included 40 percent savings on wastewater treatment in New Orleans and 30 percent savings on wastewater treatment in Schenectady.[46] In a 1996 study comparing the performance of ten government-owned California water companies with that of the state's three largest investor-owned water companies, the Reason Foundation calculated that annual operating expenses per connection averaged US$330 for the former and US$273 for the latter. Proportionally, the government-owned companies hired more than twice as many employees and spent almost three times as much of their operating revenues on salaries. Furthermore, they spent almost twice as much on maintenance to produce a product of the same quality.[47] When subsidies were accounted for, water from public operations cost 28 percent more than water from private operations.[48] Another Reason report documented savings in other jurisdictions, including those of 43 percent from the competitive contracting of operations of a water purification plant in Houston.[49]

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[44] Stitt, *op. cit.*, p. 22.

[45] Harry Kitchen, *Efficient Delivery of Local Government Service*, Government and Competitiveness Project, School of Policy Studies, Queen's University Discussion Paper No. 93-15, pp. 12-13.

[46] David Haarmeyer, *Privatizing Infrastructure: Options for Municipal Water-Supply Systems*, Policy Study No. 151 (Los Angeles: Reason Foundation, October 1992), pp. 26-7.

[47] Kathy Neal, Patrick J. Maloney, Jonas A. Marson, and Tamer E. Francis, *Restructuring America's Water Industry: Comparing Investor-Owned and Government-Owned Water Systems*, Policy Study No. 200 (Los Angeles: Reason Foundation, January 1996), pp. 3, 10.

[48] Adrian Moore, *Clearing Muddy Waters: Private Water Utilities Lower Costs and Improve Services* (Los Angeles: Reason Public Policy Institute, 1997), p. 1.

[49] Reason Public Policy Institute, "Wastewater Treatment," *Privatization Database* [online] [consulted December 16, 1999] <http://www.privatization.org>

Public Works Financing's estimates of the operating savings resulting from outsourcing, based on 45 operations and maintenance contracts with terms of over ten years, fall in roughly the same range as those reported above: 20 to 45 percent. The magazine reports that Milwaukee's ten-year wastewater treatment contract guarantees savings of 30 percent. New Haven's 15-year wastewater contract will likewise bring savings of 30 percent. In Seattle, the contract to design, build, and operate the Tolt River water filtration plant for 15 years was priced at 40 percent below the city's benchmark. Atlanta's 20-year contract to operate and manage its drinking water system will save the city 44 percent. Savings promise to be even higher in the future: In Tampa Bay, the cost of a 30-year contract to design, build, and operate a seawater desalination plant is expected to be just half the public benchmark.[50]

Other examples of the magnitude of savings from privatization abound. The privately designed, built, and operated water treatment plant for New Jersey's Howell Township cost 25 percent less than similar plants in the area; operating costs at the extensively automated plant are also lower.[51] In Mount Vernon, Illinois, the private expansion and operation of the wastewater treatment plant – undertaken in order to bring the plant into compliance with environmental regulations – not only saved the city 32 percent but also solved the problem six years earlier than the city could have done.[52]

A representative of one large water company suspects that some of the most dramatic savings mentioned above represent losses for the bidders. On the subject of Atlanta, for example, he commented, "It all boils down to who wanted to lose the most money for the longest time." To the extent that firms so highly value an opportunity to establish themselves that they are willing to underbid their competitors at a loss to themselves, savings will be more modest in the future. Nonetheless, even this cautious insider estimates savings of between ten and 30 percent – with an average range of ten to 20 percent – for both capital works and operations and maintenance.[53]

In addition to providing cost savings, privatization has frequently brought significant infusions of cash into municipal coffers. The nine asset sales examined by the Hudson Institute had a price tag of US$537 million. Lease agreements and operations and maintenance contracts may also provide cash up front. The Hudson Institute reviewed six concession fees totalling US$35

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[50] "Water/Wastewater Privatization Hits a Growth Spurt," *Public Works Financing*, Vol. 127, March 1999, p. 17; "IRS Rules in Favor of Pension Portability," *Public Works Financing*, Vol. 129, May 1999, p. 2; "Water Privatization Scorecard," *Public Works Financing*, Vol. 126, February 1999, p. 8; "Market Awaits Enron's Answer," *Public Works Financing*, Vol. 127, March 1999, p. 3; and "Tampa Bay Water Plant DBO," *Public Works Financing*, Vol. 129, May 1999, p. 8.

[51] Michael Ancell, "Privatization of Public Facilities: Panacea or Pipe Dream?" *The National Utility Contractor*, March 1993. Reprinted by the United States Environmental Protection Agency, May 1993, pp. 2-3.

[52] Thompson Gow and Associates, *Canada's Untapped Resource: Public-Private Partnerships in Water Supply and Wastewater Treatment*, Prepared for Technology Transfer Office, Environmental Technology Advancement Directorate, Environment Canada, Technology Transfer Series 2E, September 1995, pp. 48-50.

[53] Discussion between water industry representative (who wishes to remain anonymous) and Elizabeth Brubaker, April 2001.

million.[54] Municipalities have experimented with other arrangements as well. As part of its 25-year wastewater treatment plant lease, Cranston, Rhode Island, negotiated an upfront lease payment of US$48 million, which it used to repay debt and to establish a working capital fund to enhance the city's credit standing. The city expects other benefits of privatization to include upgrades to its facility, savings of US$96 million, and lower user fees.[55] Some contractors have combined one-time concession fees with additional annual payments. Scranton, Pennsylvania, negotiated a US$8 million concession payment and US$620,000 in annual fees over four years from its five-year wastewater contract, while in a 20-year contract for its water treatment plant, Rahway, New Jersey, negotiated US$13 million in concession fees over three years, followed by annual payments.[56]

The variations have seemed endless. Brockton, Massachusetts, was under considerable financial strain when it decided to contract out the operation, maintenance, and management of its water and wastewater plants. Facing a budget deficit of over US$10 million and restrained by state law from raising property taxes, the city wanted a spending breather. It negotiated a contract that allowed it to realize all of its savings from privatization up front, paying nothing for treatment in the first year. Nine years into the contract, the public works commissioner expressed his delight with the plant's performance, saying that "there has never been a day where we had to worry."[57]

The financial savings from privatization have sometimes – but by no means always – translated into lower rates for consumers. In the first four years following the 1995 sale of the Franklin, Ohio, wastewater treatment plant, rates fell by 14 percent. The EPA, comparing projected rather than actual rates, credits that privatization with a 28 percent reduction.[58] Milwaukee's wastewater contract enabled the city to cut sewer fees by 15.5 percent after one year.[59] In other cases, although rates have not fallen, neither have planned rate increases materialized. Through a 20-year water contract, Atlanta pared a projected 100 percent rate increase down to 30 percent.[60] The Hudson Institute found that privatization enabled several communities to completely eliminate planned rate increases of five, 35, and 50 percent. Other communities tempered rate increases significantly: One reduced a planned increase from 100 percent to annual increases of

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[54] Hudson Institute, *op. cit.*, p. 37.

[55] United States Environmental Protection Agency, *Response to Congress*, *op. cit.*, pp. 33-4.

[56] "Scranton, Pa., O&M Sole-Sourced," *Public Works Financing*, Vol. 127, March 1999, p. 9; "Rahway, N.J, Water Concession," *Public Works Financing*, Vol. 127, March 1999, p. 10; and "Rahway, N.J. Water Fees Back-Loaded," *Public Works Financing*, Vol. 132, September 1999, p. 14.

[57] Diane Kittower, "Serving the Public with Private Partners," Guide to Privatization, *Governing* (published by Congressional Quarterly Inc.), May 1997, p. 74.

[58] Daniel J. Kucera, "A Return to Franklin: How is Privatization Working?" *Public Works Online*, April 16, 1999; and United States Environmental Protection Agency, *Response to Congress*, *op. cit.*, p. 31.

[59] Adrian Moore, Geoffrey Segal, John McCormally, *Infrastructure Outsourcing: Leveraging Concrete, Steel, and Asphalt with Public-Private Partnerships*, Policy Study No. 272 (Los Angeles: Reason Public Policy Institute, September 2000). p. 22.

[60] Moore et al., *op. cit.*, pp. 22-3.

between three and five percent, while another reduced a planned increase from 50 percent to annual increases of between three and ten percent.[61] In contrast, the Reason Foundation's study of California utilities did not find rates to be lower for privatized water services. It concluded, however, that even though private companies must pay taxes – averaging US$41 per connection – that public companies avoid, and even though they do not enjoy public subsidies, their greater efficiencies enable them to offer comparable services at comparable prices.[62]

Communities have also benefited from the cleaner environment that often follows privatization. The private sector's capital investments have paid off in improved environmental performance. Of the facilities surveyed by the Hudson Institute, 12 had been out of compliance with environmental regulations at the time privatization. Within one year, all had achieved full compliance.[63] Improved compliance has not resulted from an infusion of private capital alone; it has also reflected private-sector expertise. The new owner of Franklin, Ohio's, plant attributes the drop in excursions from permit requirements – from 30-40 per year to one – not only to upgrades of the plant's aeration systems but also to more efficient plant operation.[64] Some communities have given their contractors financial incentives to improve environmental performance. Milwaukee established a system of performance payments and penalties related to the quality of effluents from its two wastewater treatment plants. For example, it rewards the contractor for reductions in annual average biochemical oxygen demand, adding US$100,000 to the contractor's service fee for every milligram per litre of improvement. For its first year of operations, the contractor earned a US$50,000 bonus along with kudos for consistently meeting national permit requirements for the first time in five years. It repeated this performance the following year.[65]

Not surprisingly, most communities appear to be satisfied with the results of their privatizations. Although some communities have recently "municipalized" water and sewage works, they are exceptions to the rule. *Public Works Financing* examined the 1998 record on contract renewals for 13 of the U.S.'s largest water contract operators. Of the 127 contracts that expired in 1998, 107 contracts – 84 percent – were renewed with the incumbent operator. Ten contracts were negotiated with different private operators. Two contracts fell into an unexplained "other" category. Eight contracts – six percent – were re-assumed by municipalities.[66] The magazine repeated the survey two years later, with similar results. Of the 166 contracts that expired in 2000, 151 contracts – 91 percent – were renewed with the incumbent operator. Six were

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[61] Hudson Institute, *op. cit.*, pp. 27, 36, 42.

[62] Neal et al., *op. cit.*, pp. 4-5, 9-10, 14-15.

[63] Hudson Institute, *op. cit.*, pp. 35, 39.

[64] Kucera, *op. cit.*

[65] Milwaukee Metropolitan Sewerage District, "Terms of the 10-year Contract," *Competitive Contracting News*, March 1998, p. 4; Milwaukee Metropolitan Sewerage District, *Competitive Contract Annual Report*, March 1999, p. 5; and Milwaukee Metropolitan Sewerage District, *Competitive Contract Annual Report*, March 2000.

[66] "Renewals, Lost Contracts for 13 Firms in 1998," *Public Works Financing*, Vol. 127, March 1999, p. 24.

negotiated with private competitors. Nine – just five percent – were re-assumed by municipalities.[67]

[67] "Renewals, Lost Contracts in Calendar 2000," *Public Works Financing*, Vol. 149, March 2001, p. 21.

TWO CASE STUDIES: ATLANTA, GEORGIA, AND INDIANAPOLIS, INDIANA

Water Utility Privatization in Atlanta, Georgia

Atlanta privatized its drinking water system for one overarching reason: Privatization would dramatically reduce annual operating costs. The city's water and, especially, wastewater systems required costly upgrades, and unhappy consumers faced dramatic increases in their water and sewer rates. Privatization would free up money for repairs while moderating rate increases. It provided an environmental, financial, and political lifeline.

Throughout much of the 1990s, Atlanta's wastewater system caused nightmares for residents and politicians alike. Aging sewers and inadequate treatment plants contaminated land and water. Twenty-foot-high "faecal fountains" periodically erupted from man holes. Overflows, spills, and leaks contaminated the Chattahoochee river system with raw sewage. Federal, state, and private complaints resulted in millions of dollars in fines and a consent decree specifying expensive corrective action.

Less severe problems beset the water system. Water main breaks were common in the winter. A 1994 rupture dramatically reduced water levels, necessitating extreme conservation measures.[68] In 1997, state inspectors cited the city for problems with record keeping, monitoring, staffing, and discharges of filter backwash water.[69] One privatization consultant described the system's management as "very political" and, perhaps as a result, "not terribly efficiency-conscious."[70] A local newspaper called the improperly functioning system "a dangerous embarrassment" and urged the city to "get the system out of bureaucrats' hands and into those of specialists who know what they're doing."[71]

Mayor Bill Campbell initially rejected privatization as a way of solving the system's problems. Indeed, the populist democrat opposed the privatization of city services when he was running for office.[72] Reflecting on his subsequent change of heart, he admitted to one reporter, "It's an odd circumstance, because I don't favour privatization philosophically."[73] To another reporter he explained, "Privatization is a government's admission of failure. Government ought to be able to accomplish projects as efficiently as business."[74] Apparently, grim economic realities swayed

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[68] Charmagne Helton, "Focus on Sewer Privatization: Atlanta Looks to Indianapolis for Guidance," *Atlanta Journal / Atlanta Constitution*, April 1, 1997.

[69] City of Atlanta, *Atlanta Water Commissioner's Updates*, November 21, 1997.

[70] "Atlanta: All eyes watch country's biggest privatization effort," *American City and County*, May 1998.

[71] "Campbell bridges troubled water issue," *Atlanta Business Chronicle*, September 4, 1998.

[72] Charmagne Helton, "Focus on Sewer Privatization," *op. cit.*

[73] Richard Lambert, "Investors: Come Splash Out in Atlanta's Water," *Financial Times*, March 6, 1998.

[74] Stephanie Ramage, "Campbell keeps battling," *Atlanta Business Chronicle*, September 4, 1998.

him. In an apologia explaining his decision to privatize, the mayor noted that the city's water and sewage systems needed almost US$1billion for immediate improvements and that, in the absence of privatization, average rates would increase immediately by over 50 percent.[75] Such increases, he said, would place "an unbearable financial burden" on ratepayers; for senior citizens and low-income residents, they would be "unacceptable, not to mention immoral." Privatization could generate needed funds without undue rate increases. Residents would benefit, the environment would benefit, and the city could focus its attention and energy on other pressing needs. "Privatization," the mayor wrote, "is one strategy whose time has come.... There simply is no viable alternative."[76]

Having explored its privatization options, and having rejected an asset sale as requiring more political discussion than its time frame permitted,[77] the city decided to proceed with a contract operations arrangement. At a cost of over US$2 million, it hired a number of engineering, financial, legal, and environmental consulting firms to help it design, execute, review, and revise the process.[78] Competitive selection commenced in 1998. Five firms responded to the city's request for qualifications, and all five went on to submit proposals, although only four completed the process. In evaluating the proposals, the city and its consultants used a point system that weighed, in declining importance, annual costs, technical and management quality, minority participation, employee relations, and experience.[79]

Opposition to the process came from several corners. City council member Clair Muller objected that the privatization process was moving forward too quickly and expressed concern that a 15- or 20-year contract would create a monopoly. Even so, she supported the idea of privatization.[80] Louder criticism came from the Metro Group, a group of current and former business and government leaders that opposed the commitments, in the proposed privatization agreement, to

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[75] According to Atlanta's *City Beat Online*, the city anticipated an increase of 81 percent. "Privatization Milestones," *City Beat Online*, Vol. 1, No. 14, August 22, 1998 [online] [consulted April 4, 2001] <http://www.ci.atlanta.ga.us/Citybeat/aug2298/page3.htm>

[76] Bill Campbell, "Why I believe privatization is the right thing to do," *Atlanta Constitution*, February 1998. Reprinted in *City Beat Online*, Vol. 1, No. 14, August 22, 1998 [online] [consulted February 28, 2001] <http://www.ci.atlanta.ga.us/Citybeat/aug2298/page2.htm>

[77] James Waddell, *Public Water Suppliers Look to Privatization*, White Paper included in Montgomery Research's Utilities Project, undated [online] [consulted April 3, 2001] <http://www.utilitiesproject.com>

[78] Bill Campbell, "Last Call for Privatization," Press Conference, August 19, 1998. Posted on *City Beat Online*, Vol. 1, No. 15, August 29, 1998 [online] [consulted April 4, 2001] <http://www.ci.atlanta.ga.us/Citybeat/aug2998/aug2998.htm>

[79] "Atlanta: All eyes watch country's biggest privatization effort," *op. cit.*; and United Water, "Atlanta signs United Water," undated [online] [consulted April 3, 2001] <http://waterindustry.org>

[80] "Atlanta: All eyes watch country's biggest privatization effort," *op. cit.*

affirmative action and equal opportunity.[81] This group and other critics also maintained that the mayor's handling of privatization was prone to corruption.[82] Concerns were raised both about the relationship of one of the city's privatization consultants to a firm bidding on the project and about contributions made by that firm to Mr. Campbell's mayoralty campaign – concerns not put to rest until the firm did not win the contract.[83] Despite such opposition, on the whole, privatization received accolades from local newspapers, council members, and business coalitions.[84]

In October 1998, with two dissenting votes, city council approved the selection of United Water Services Atlanta (UWSA), a partnership between United Water Services and Williams-Russell and Johnson, a local engineering firm. The partnership offered the lowest cost: At US$21.4 million, its annual cost for a 20-year contract was between US$1.3 million and US$4.5 million below that of its competitors.[85] Furthermore, it offered a good track record. United Water boasted many years of experience: It was founded in 1869, and its part-owner, the international water giant Suez Lyonnaise des Eaux, was established in 1858.[86] It could cite several notable privatization successes, even when measured in terms of labour relations. Indeed, the firm's good labour relations in Indianapolis and Milwaukee helped influence the choice of contractors.[87]

UWSA's bid was also attractive for its socio-economic promises. The minority-owned Williams-Russell and Johnson provided 35 percent minority participation in the business – an important factor in the city's decision.[88] Furthermore, it offered benefits to the city's poorer neighbourhoods, which were the mayor's power base.[89] In order to boost economic development in Atlanta's inner city "Empowerment Zone," UWSA agreed to locate its regional headquarters there and to encourage its employees to relocate there. It also committed to hiring 20 percent of its workforce from the zone, to helping companies start-up operations in the zone, and to

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[81] Andrew Young, "Statement on Privatization and the Metro Group," *City Beat Online*, Vol. 1, No. 14, August 22, 1998 [online] [consulted February 28, 2001] <http://www.ci.atlanta.ga.us/Citybeat/aug2298/aug2298.htm>; and "Privatization a Done Deal," *City Beat Online*, Vol. 1, No. 23, October 24, 1998 [online] [consulted April 4, 2001] <http://www.ci.atlanta.ga.us/Citybeat/Oct2498/Oct2498.htm>

[82] Ramage, *op. cit.*

[83] Jess Scheer, "Water privatization: Oversight firm tied to 'crony,'" *Creative Loafing*, August 22, 1998; and Jess Scheer, "Anonymous letter says water contract bid 'rigged,'" *Creative Loafing*, August 15, 1998.

[84] Ramage, *op. cit.*

[85] United Water, "Atlanta signs United Water," *op. cit.*

[86] United Water, *1999 Annual Report*, pp. i, 15.

[87] Bill Campbell, "Why I believe privatization is the right thing to do," *op. cit.*; and Carlos Campos, Julia Hairston, and David Pendered, "United Water 'a safe selection,'" *Atlanta Journal-Constitution*, August 8, 1998.

[88] "Privatization a Done Deal," *op. cit.*

[89] Adrian Moore, *Privatization 1999: The 13th Annual Report on Privatization* (Los Angeles: Reason Foundation, May 1999), p. 36.

providing US$1 million in annual funding for water research at the zone's Clark Atlanta University.[90] The firm may benefit from tax incentives offered through the Atlanta Empowerment Zone Corporation. Indeed, it has been suggested that anticipated tax incentives of up to $8,000 per employee contributed to UWSA's low bid price.[91]

The parties signed a twenty-year agreement that went into effect on January 1, 1999. The agreement covered the operations and maintenance of two water treatment plants serving 1.5 million people in the greater Atlanta area – an area covering 650 square miles. It also assigned to the company responsibility for 12 storage tanks, 7 pumping stations, 25,000 fire hydrants, 2,400 miles of water mains, billing, collections, and customer service.[92] Although Atlanta retained responsibility for most capital investments, UWSA agreed to invest almost US$10 million in automation and information technologies.[93]

The contract set UWSA's annual operations and maintenance fee at US$21.4 million – 44 percent less than the US$49 million the city had previously spent running the system. Some costs remained with the city: It would spend approximately US$6 million annually on power, insurance, and contract-monitoring.[94] Regardless, with 20 years of savings of between $20 million and $30 million a year, the city would be guaranteed savings of US$400 million over the life of the contract. Mayor Campbell vowed to use those savings to repair the water and sewer systems.[95]

One source of savings for UWSA was the reduction in staff made possible by cross-training, increased employee productivity, and computerization. The city's request for proposals had prohibited layoffs in the first three years of private operations.[96] UWSA went further,

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[90] Jeff Dickerson, "Ambitious Commitment: Empowerment Zone has new best friend," *Atlanta Journal-Constitution*, December 1, 1998; and "Water Privatization Floats Hope in Empowerment Zone," *City Beat Online*, Vol. 1, No. 20, October 3, 1998 [online] [consulted April 4, 2001] <http://www.ci.atlanta.ga.us/Citybeat/Oct0398/Oct0398.htm>

[91] "Drinking Success: Atlanta Project in Capsule" in Water Industry Council Information Archives [online] [consulted April 3, 2001] <http://waterindustry.org/frame-8.htm>

[92] United Water, *Municipal Info: Atlanta, GA*, undated [online] [consulted March 7, 2001] <http://www.unitedwater.com/atlanta.htm>

[93] United Water, *1999 Annual Report*, p. 13; and United States Conference of Mayors, "Best Practice Recognition: The City of Atlanta and United Water Services Atlanta Privatization of Water Services," Best Practices Database [online] [consulted April 4, 2001] <http://www.usmayors.org/uscm/best_practices/partnership/atlanta_reg.html>

[94] Moore, *op. cit.*, p. 36.

[95] "Administration Selects United Water Services to Run City's Water System," *City Beat Online*, Vol. 1, No. 16, September 5, 1998 [online] [consulted April 4, 2001] <http://www.ci.atlanta.ga.us/Citybeat/sep0598/sep0598.htm>; "Privatization a Done Deal," *op. cit.*; and United Water, *Municipal Info: Atlanta, GA*, undated [online] [consulted March 7, 2001] <http://www.unitedwater.com/atlanta.htm>

[96] Waddell, *op. cit.*

guaranteeing no layoffs for the life of the contract.[97] Regardless, many staff members left voluntarily. When the deal was approved in October 1998, the water department had 535 employees.[98] By the time UWSA took over, that number had declined to 479. All 479 were offered jobs with current wages and benefits; 417 accepted.[99]

In several important respects, labour gained ground in the privatization. The city had not previously recognized union employees, who had no collective bargaining agreement. Several months after signing its contract with the city, UWSA signed a three-year agreement with Local 1644 of the American Federation of State, County, and Municipal Employees. It was the first agreement in Georgia between a private firm and a public sector union. The union ended up with more dues-paying members than it had had before privatization. The agreement provided union members – many of whom had not had a raise in six years – with a signing bonus, wage increases, and bonuses for improvements in efficiency. [100] UWSA compensated for the decrease in some benefits with more generous pension contributions and better medical plans for the workers. Even so, not all workers were happy with the change. Concerned about the loss of health benefits after retirement, 250 employees tried unsuccessfully to block privatization in the courts.[101] Larry Wallace, the city's Chief Operating Officer, noted that some workers' "adverse attitudes" made the transition difficult.[102]

Several other challenges greeted UWSA in its new job. The firm inherited from the city between 4,000 and 7,000 outstanding requests for service, some of which were three years old. (The number varies in the city's and firm's estimates.) The backlog prevented the firm from responding to leaks within one day or installing meters within 15 days – performance requirements that would kick in later in the contract period – leaving customers, in the words of one columnist, "fed up over leaky pipes and lengthy repairs."[103] The firm tackled the problem by installing a computer system to track work orders and cross-training workers to enable them to

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[97] "Privatization a Done Deal," *op. cit.*; and American Federation of State, County, and Municipal Employees, "No layoffs for 20 years," *AFSCME Leader*, June 1999 [online] [consulted March 7, 2001] <http://www.afscme.org/publications/leader/99060110.htm>

[98] According to one newspaper account, the water department had 731 employees two years before privatization. The number declined as workers retired or found new jobs. Ann Hardie, "City, firm up to their necks in complaints," *Atlanta Journal-Constitution*, September 6, 1999.

[99] United Water, "Atlanta signs United Water," *op. cit.*; and United Water, *Municipal Info: Atlanta, GA*, *op. cit.*

[100] United Water, *Municipal Info: Atlanta, GA, op. cit.*; American Federation of Labor – Congress of Industrial Organizations, "Going with the flow," *Work in Progress*, April 19, 1999 [online] [consulted March 7, 2001] <http://www.aflcio.org/publ/wip1999/wip0419.htm>; American Federation of State, County, and Municipal Employees, *op. cit.*; "Unions Sign Up for Atlanta Water," *Public Works Financing*, April 1999, Vol. 128, pp. 14-15; and Louis Monteilh, telephone conversation with Krystyn Tully, April 11, 2001.

[101] Carlos Campos, "Atlanta water flows to United: New Jersey firm optimistic despite employee lawsuit," *Atlanta Journal-Constitution*, January 1, 1999.

[102] Gopal Tiwari, "Privatization of PEs good for public," *Kathmandu Post*, June 7, 2000.

[103] Ann Hardie, "City, firm up to their necks in complaints," *op. cit.*

repair pipes more efficiently.[104]

In terms of water quality, performance has neither dramatically improved nor worsened. Atlanta's drinking water met or surpassed all state and federal standards in the years immediately preceding and following privatization. Some contaminant levels decreased during the first year of private operations while others increased. The measure of total coliform bacteria fell from 1.4 percent in 1998 to 0.8 percent in 1999. Levels of copper increased from 180 to 200 ppb, lead from 4.1 to 5.5 ppb, nitrate as nitrogen from 0.5 to 0.6 ppm, and total trihalomethanes from 46 to 47.1 ppb. Sampling increased dramatically. In 1998, the city collected over 2,000 samples and conducted over 10,000 tests. In 1999, those numbers rose to 12,000 and 50,000 respectively.[105]

There has been limited public criticism of privatization. In 2000, mayoral candidate Gloria Bromell-Tinubu claimed that the private delivery of water services had not been effective. Although she offered no details, her comments on privatization in general provided insight into her thinking: If a responsive government delivers services that exceed the expectations of its citizens, she insisted, "the whole notion of privatization becomes moot."[106]

Overall, however, the city seems delighted with privatization. Mayor Campbell, no longer sounding like a reluctant partner, has indulged in the occasional rhetorical flourish on the subject: "We have learned that in rebuilding our city, the public and private sector are like the two wings of a bird. In today's climate of shrinking budgets and environmental challenges, each partner is needed to make the bird take flight."[107] In 1999, the mayor professed his administration "extremely pleased with our transition in this public-private partnership that has allowed us to make major investments in our infrastructure and to enhance environmental protection."[108] It was so pleased, in fact, that it was considering other privatizations. In a speech delivered in January 2000, the mayor announced his intention to build on the success of water privatization by privatizing the city's sewer system. Noting that water privatization had saved Atlanta's residents over US$20 million a year, the mayor expressed his hope that sewage privatization would "provide huge savings for our residents, as well."[109]

Wastewater Utility Privatization in Indianapolis, Indiana

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[104] Ann Hardie, "Backlog damming tries at timeliness," *Atlanta Journal-Constitution*, August 30, 1999.

[105] United Water Services Atlanta, *Atlanta's 1998 Drinking Water Quality Report*; and United Water Services Atlanta, *Atlanta Water System Water Quality Report for 1999.*

[106] Gloria Bromell-Tinubu, "Old ways won't solve problems," *Atlanta Business Chronicle*, July 7, 2000.

[107] "Water/Wastewater Privatization Hits a Growth Spurt," *Public Works Financing*, March 1999, Vol. 127, p. 17.

[108] United Water, *1999 Annual Report*, p. 13.

[109] Bill Campbell, "Building the New Atlanta Through Effective Partnerships," 2000 State of the City Millennium Business Breakfast [online] [consulted April 5, 2001] <http://www.ci.atlanta.ga.us/mayor/2000%20Speech/Page2.htm>

Privatization in Indianapolis has been an unqualified success.[110] The city contracted out the operations and maintenance of its two sewage treatment plants in 1994. Two years later, it contracted out the operations and maintenance of its sewage collection system. Combined, the contracts will save the city more than US$250 million by 2007.[111] Privatization has also enhanced environmental performance and improved relations with the systems' employees.

Privatization of the sewage treatment plants began with a competitive bidding process in which all documents, including the contract, became public. From a field of five bids, the city selected the White River Environmental Partnership (WREP), a consortium including IWC Resources (parent to the company that has supplied drinking water to Indianapolis for over 100 years), JMM Operational Services (now United Water Services), and Suez Lyonnaise des Eaux. WREP brought extensive expertise to Indianapolis. According to Mike Stayton, director of the city's public works department, "It's just a different league. These guys have resources our guys could only dream of." Mayor Stephen Goldsmith added, "WREP brought us some of the best technical experience in the world – the companies comprising the partnership employ more PhD civil engineers than the city of Indianapolis has employees. They literally wrote the book on water treatment."[112]

Its appreciation of the contractor's experience had not prepared the city for cost savings of the magnitude that occurred. Before privatization, consultants Ernst and Young had estimated that contracting out operations of the recently renovated and apparently well run sewage treatment plants would achieve savings of just five percent.[113] That estimate was off by a factor of eight. The city had spent US$30.1 million on its plants in 1993; in the first year of private operations, costs fell to US$17.6 million – a drop of almost 42 percent.[114] Over the first five years of the contract, the city saved US$72.8 million, including US$63.1 million in operations and maintenance costs and US$9.7 million in avoided capital expenditures.[115] These savings were US$7.9 million greater than promised in WREP's initial proposal.

In part, the savings reflect lower staffing costs. Rather than specifying staffing levels, the sewage treatment contract simply requires WREP to employ adequate staff to operate the plants at

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[110] The following discussion is largely drawn from Craig Golding, *A Wastewater Treatment Privatization Case Study: Indianapolis, Indiana* (Toronto: Environment Probe, March 2000).

[111] City of Indianapolis, "Goldsmith Announces Savings from Wastewater Privatization," Press Release, August 5, 1999, p. 2.

[112] Stephen Goldsmith, *The Twenty-First Century City: Resurrecting Urban America* (Washington, D.C.: Regnery Publishing, Inc., 1997), p. 35.

[113] Goldsmith, *op. cit*., p. 202.

[114] Jeff Bowden, Glena Carr, and Judi Storrer, *New Directions in Municipal Services: Competitive Contracting and Alternative Service Delivery in North American Municipalities* (Toronto: ICURR Press, 1997), p. 6.

[115] White River Environmental Partnership, *City of Indianapolis Contract Operations of the AWT Facilities and Collection System: Fifth Year Summary of Activities*, undated, p. 7.

specified performance levels.[116] This flexibility allowed WREP to reduce staff from 322[117] to 196 at the start of the contract.[118] Four years later, just 157 people remained at the plants – fewer than half the pre-privatization number.[119] WREP's decision to use chlorine rather than ozone to disinfect the plants' effluents brought further savings.[120] Savings also resulted from the use of technology that was previously unavailable to the city, economies of scale allowing for wholesale purchase agreements, and improved planning, including greater emphasis on preventative rather than corrective maintenance. In its first year, WREP decreased inventory from US$6.7 million to less than US$2 million and reduced the number of warehouses from 37 to 2.[121] By the end of the second year of private operations, utility costs had fallen by 20 percent, corrective maintenance costs had fallen by 30 percent, and unanticipated capital expenditures had fallen by 20 percent.[122]

Cost savings have enabled Indianapolis to keep taxes low, prompting Mayor Goldsmith to applaud privatization's "enormous benefits for taxpayers." Savings have also enabled the city to avoid raising sewer rates, which remain at 1985 levels. The city has invested much of the savings in repairing its crumbling sewer system. According to one source, the city's investment in sewers has totalled US$30 million.[123] Elsewhere, Mayor Goldsmith has been quoted as saying that privatization allowed the city to invest over US$90 million in re-building the sewer system.[124]

Under a differently structured contract, cost savings might have been even greater. While the contract obliges WREP to fund routine maintenance and operations, the city retains

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[116] *Amended and Restated Agreement for the Operation and Maintenance of the City of Indianapolis, Indiana, Advanced Wastewater Treatment Facilities*, contract between the City of Indianapolis and White River Environmental Partnership, amended December 1997, pp. 15, 30.

[117] Other sources put the number of city employees at between 321 and 328.

[118] White River Environmental Partnership, *Indianapolis Advanced Wastewater Facilities: One Year Summary*, submitted to Indianapolis City County Council March 20, 1995, p. 9.

[119] White River Environmental Partnership, *City of Indianapolis Contract Operations of the AWT Facilities and Collection System: Fourth Year Summary of Activities*, undated, p. 1.

[120] WREP calls its switch to chlorination/dechlorination temporary. It defends it on the grounds that the ozone system could not handle large flows, broke down repeatedly, and required costly repairs. It has proposed moving to a disinfection system that uses ultraviolet radiation and awaits city approval to do so. While many environmentalists oppose the use of chlorine, they see the switch as an acceptable temporary solution. As the Audubon Society's Richard van Frank explains, "The O3 system was nearly beyond repair and was down much of the time . . . Chlor/dechlor was the best immediate solution to the problem. UV would be better but, again, the city will not install it because of capital cost." E-mail to Craig Golding, December 4, 1999.

[121] White River Environmental Partnership, *Indianapolis ... : One Year Summary*, *op. cit.*, p. 4.

[122] White River Environmental Partnership, *Indianapolis Advanced Wastewater Treatment Facilities: Second Year Summary*, undated, p. 4.

[123] City of Indianapolis, "Goldsmith Announces Savings," *op. cit.*, p. 1 and Attachment D: WREP Savings Investments 1994-1998.

[124] United Water, "United Water Contract Extended for Indianapolis Partnership," Press Release, November 5, 1997.

responsibility for all major investments. It will fund up to US$3.5 million a year in corrective maintenance and minor capital improvements and another US$3 million a year in major capital improvements. The city's agreement to reimburse WREP for labour, materials, and subcontracting at cost plus 11 percent mark-up may curb WREP's incentive to reduce the costs of major maintenance and capital improvements.[125]

Labour relations

Despite extensive cuts to staff, relations between management and labour have improved. Thanks to job banking within city government operations and an extensive outplacement program funded by WREP, the transition from public to private operations left no workers unemployed: Sixty-seven found positions with the city; 43 found private sector jobs through the outplacement program; ten found jobs on their own; five retired; and one found a job with a WREP partner.[126]

Fostering good relations with those who remained at the plants, WREP became one of the country's first private companies to sign a bargaining agreement with the American Federation of State, County and Municipal Employees (AFSME).[127] It has rewarded staff with higher salaries and better benefits, leaving them between 9 and 28 percent ahead of their city counterparts. WREP's employees also enjoy more training and a safer work environment, bringing accidents down by 84 percent. Grievances fell from an average of 43 for the three years before privatization to an average of 0.4 for the five years following privatization.[128]

Although AFSCME formally opposes privatization – and even launched a court action to stop it – it now admits that privatization has improved the lot of its members. Union local president Steve Quick praises both the opportunities for training and advancement and the safer work environ-ment.[129] Steward Cherie Moore likewise defends the change, saying "Just because it's different, don't say it's not good."[130] Former local president Stephen Fantauzzo offers the most telling comment about former city workers: "The majority would say they don't want to come back."[131]

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[125] *Amended and Restated Agreement*, pp. 18, 23, 24, 26, 27; and Daniel Mullins and C. Kurt Zorn, "Privatization in Indianapolis: A Closer Look at Savings and the Wastewater Treatment Facility," *In Roads*, Vol. 1, No. 3, Fall 1996, endnote 22, p. 20.

[126] Charmagne Helton, "Focus on Sewer Privatization," *op. cit*.

[127] White River Environmental Partnership, *Indianapolis ... : One Year Summary*, *op. cit*., p. 1.

[128] City of Indianapolis, "Goldsmith Announces Savings," *op. cit*., p. 3; and White River Environmental Partnership, *City of Indianapolis ... : Fifth Year Summary of Activities, op. cit*., p. 2.

[129] White River Environmental Partnership, *City of Indianapolis ... : Fifth Year Summary of Activities, op. cit*., p. 2.

[130] Charmagne Helton, "New Management Gets High Marks," *Atlanta Journal / Atlanta Constitution*, April 1, 1997.

[131] David Osborne, "The Service Secret," *Washington Post Magazine*, December 8, 1996, p. 12.

Environmental performance

Like the union activists, environmentalists initially opposed privatization. Most were concerned that a profit-driven contractor would compromise environmental safety. To ensure environmental accountability, the city provided for extensive monitoring by WREP, an independent private company, the Department of Public Works, and the Indiana Department of Environmental Management (IDEM). Two advisory panels involving academics, stakeholders, and over 20 environmental groups also monitor WREP's performance. As a result, the city has more – and better quality – data than ever and can exercise greater control.[132]

In the Fall of 1994, the death of over 513,000 fish in the White River revived controversy over privatization's effects on the environment. Frank O'Bannon, Stephen Goldsmith's successful opponent in the state gubernatorial race, tried to politicize the fish kills, blaming them on WREP's operation of one of the sewage treatment plants. The *Indianapolis Star / News* accused Mr. O'Bannon's campaign of skewing some facts and suggested that overflows from the publicly operated sewage collection system were the likely culprit. It noted that state regulators had sent a letter praising WREP for its work in meeting environmental challenges and confirming that it had found no violations of the sewage treatment plants' permits.[133] Environmental groups, including the Indiana Environmental Institute and the Hoosier Environmental Council, agree that responsibility for the fish kills rests with the city's inadequate sewer system rather than with WREP.[134] In the words of Glenn Pratt, formerly with the Environmental Protection Agency and now with Friends of the White River (FOWR), "The fish kills had nothing to do with the operation of the wastewater treatment plants. The fish kills were caused by the discharge of raw sewage from the collection system ... [They] became very political events in which our new more political IDEM confused the facts for political mileage."[135]

The fish-kill controversy aside, privatization has clearly benefited the environment. The contract requires WREP not only to comply with all environmental laws and regulations but also to equal or better all aspects of the city's environmental performance.[136] WREP has more than halved permit exceedances and has reduced fecal concentrations to a quarter of what they were under

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[132] Goldsmith, *op. cit*., p. 208.

[133] Kyle Niederpruem, "City, State Strike Deal Over '94 Fish Kill," *Indianapolis Star / News*, February 2, 1997.

[134] Steven Cohen and William Eimicke, *Is Public Entrepreneurship Ethical? A Second Look at Theory and Practice*, School of International and Public Affairs, Columbia University, draft of May 18, 1998 [online] [consulted April 6, 2001] <http://www.columbia.edu/cu/sipa/COURSES/PUBMAN/pm4.html>

[135] Glenn Pratt, E-mail to Craig Golding, August 3, 1999.

[136] *Amended and Restated Agreement*, *op. cit*., pp. 14, 19; and City of Indianapolis, "Goldsmith Announces Savings," *op. cit*., p. 3.

city management.[137] The plants now regularly meet the targets, established by Indianapolis, for treatment efficiency, biological oxygen demand, suspended solids, and ammonia concentrations.[138] Furthermore, they are exceeding the standards established by the Environmental Protection Agency and have earned numerous environmental awards from the Association of Metropolitan Sewerage Agencies.[139] The system is also better able to handle stormwater and has reduced plant bypasses and combined sewer overflows.

As a result, privatization has won over local environmentalists. FOWR's Mr. Pratt had vocally opposed privatization in 1993, predicting that treatment standards would be lowered.[140] He now acknowledges that WREP has improved upon the city's performance.[141] The Audubon Society's Richard van Frank agrees that operations and maintenance have improved since privatization.[142] FOWR's Brant Cowser also has praise for privatization. Citing a good working relationship and good communication with WREP, he insists that contracting out wastewater operations "was a good move for our city.[143]

The city wholeheartedly agrees. On the first anniversary of the sewage treatment plant contract, Mayor Goldsmith boasted, "we have one of the most extraordinary competition successes in the world."[144] In 1997, the city extended by ten years the contracts to operate the collection and treatment systems. Two years later, Mayor Goldsmith expressed his ongoing delight with the arrangement: "The deal, which has proven to be a major victory for all Indianapolis taxpayers, has also benefited the local environment."[145] It is little wonder that *Public Works* magazine calls the arrangement a "model for public-private partnership."[146] It has, without doubt, been a victory for taxpayers, workers, and the environment.

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[137] City of Indianapolis, "Goldsmith Announces Savings," *op. cit.*, Attachment B: Effluent Performance Scorecard.

[138] City of Indianapolis, *2000 Annual Budget: Department of Public Works Contract Compliance Division* [online] [consulted April 6, 2001] <http://www.indygov.org/controller/budget2000/dpw_budget.pdf >

[139] City of Indianapolis, "Goldsmith Announces Savings," *op. cit.*, Attachment C: Awards.

[140] Diana Penner, "City Sewage Plants Go Private to Cut Costs," *Indianapolis Star / News*, November 13, 1993.

[141] Pratt, *op. cit.*

[142] Van Frank, *op. cit.*

[143] Brant Cowser, E-mail to Craig Golding, December 4,1999.

[144] Reason Foundation, "Indianapolis Wastewater Contract Praised by Public Officials," *Privatization Watch*, No. 221, May 1995, p. 1.

[145] City of Indianapolis, "Goldsmith Announces Savings," *op. cit.*, p. 1.

[146] Dennis Neidigh, "Indianapolis Continues Role as Model for Public-Private Partnership," *Public Works*, March 1999, p. 55.

WATER AND WASTEWATER UTILITY PRIVATIZATION IN ENGLAND AND WALES

In 1989, Margaret Thatcher's government sold off the assets of the ten regional water and wastewater authorities in England and Wales. That sale has become – at least in Canada – the most criticized and least understood of all privatizations. From labour and environmental activists it has received steady and harsh criticism, a good deal of which is baseless.

England and Wales privatized for many of the reasons discussed in previous chapters. A host of problems had long plagued underfunded systems. Almost a third of the treated water disappeared through leaking distribution and supply pipes, some of which dated back to the Victorian era.[147] Many sewage systems discharged untreated sewage directly into the ocean, making beaches unswimmable. The government, unwilling to insist on improvements that it would have to pay for, ignored – and in some cases, concealed – the problem.

The European Community made it impossible for Britain's government to continue denying the extent of sewage pollution. In 1975, when the EC issued a directive giving member countries ten years to bring their "bathing waters" up to uniform standards, the government tried to evade the issue by claiming that the country had only 27 beaches. Not until 1987 did it admit that hundreds of beaches encircled its island. It then had to also admit that sewage contaminated a third of those beaches: In 1988, only 241 of 364 designated beaches met European bathing water standards.[148]

By the late 1980s, the government estimated that £24 billion would be required within ten years to repair the water and sewage systems and to meet new European standards. However, "the financial harness of Whitehall" severely constrained any public investment. As former regulator David Kinnersley explained, "the government wanted this huge financing of additional investment to be taken out of the public sector ... The part of it that would come from borrowing, the government wanted to be private borrowing; the part that would come from price increases, the government wanted not to be the responsibility of ministers."[149] Under privatization, the government promised, the suppliers of water and sewage services would be "released from the constraints on financing which public ownership imposes."[150]

Privatization was driven not only by mounting financial pressures but also by the growing understanding that a government could not properly regulate facilities that it owned. Indeed, Mr.

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[147] Office of Water Services, *Leakage of Water in England and Wales*, May 1996, pp. 4, 11, 13.

[148] Donna Burnell, ed., *Waterfacts '95* (London: Water Services Association of England and Wales, 1995), p. 31.

[149] David Kinnersley, *Coming Clean: The Politics of Water and the Environment* (London: Penguin Books, 1994), pp. 4, 49, 60-1.

[150] The Secretary of State for the Environment et al., *Privatisation of the Water Authorities in England and Wales*, Government White Paper, February 1986, pp. 1, 2.

Kinnersley described the regulatory regime of the time as intentionally ineffective. A "potent culture of government concealment" kept public concern at bay and enabled the government to avoid prosecuting polluting facilities.[151] In 1987, the Secretary of State acknowledged that in a publicly owned system, the government acted as both "gamekeeper" and "poacher."[152] While responsible for controlling the discharge of pollutants, it was a major discharger in its own right. These dual roles put it in an inescapable conflict of interest and made good regulation impossible. By separating the polluter from the regulator, privatization would free regulators to regulate.

To prepare for privatization and to enable the public water and wastewater authorities' private successors to meet tough environmental standards, the government wrote off £5 billion of their debts and provided them with a "green dowry" – a £1.6 billion cash injection. It then transferred their infrastructure and most of their functions to ten new "water service companies" and sold shares in these companies in a public offering.[153] The new companies provided sewage services to all of the connected population and water services to approximately three- quarters of the connected population. The remaining quarter continued to be served by one of 29 previously existing private water supply companies, some of which had been in business since the seventeenth century. The government established environmental, health, and economic regulators to oversee both the new water service companies and the long-established water supply companies. This combination of privatization and regulation has by many measures – including capital investment, environmental performance, drinking water quality, and customer service – been a success. By other measures – notably popularity among consumers and workers – it has fared less well.

The Benefits

The ten new water service companies have invested enormous sums in infrastructure. By 1998-99, capital expenditures amounted to £33 billion and showed no sign of letting up. That year alone, investments neared £3.7 billion – £ 3.2 billion for new fixed assets and £0.5 billion for infrastructure renewals.[154] By 2005, the private companies will have invested £50 billion.[155] As one official from the Department of the Environment noted, "You just couldn't contemplate that

[151] Kinnersley, *op. cit.*, p. 202; and Lord Crickhowell, *House of Lords Hansard,* April 17, 1989, col. 579.

[152] Kinnersley, *op. cit.*, p. 53.

[153] Office of Water Services, *Privatisation and History of the Water Industry*, Information Note No. 18, February 1993.

[154] Office of Water Services, *1998-99 Report on the Financial Performance and Expenditure of the Water Companies in England and Wales*, September 1999, p. 33.

[155] Philip Fletcher, "The Future of the UK Water Regulatory Regime," speech to FT Global Water Conference, November 14, 2000.

kind of expenditure in the absence of privatization."[156] Indeed, capital expenditures before privatization had been minimal in comparison, remaining well under £1 billion a year (in 1993-94 cost terms) between 1920 and 1960, and generally fluctuating between £1 billion and £2 billion a year in the 1960s, 1970s, and 1980s.[157] Annual investment averaged £1.7 billion in the 1980s.[158]

The water companies' investments have paid substantial health and environmental dividends. In addition to financing the construction of new primary treatment facilities for the wastewater of more than seven million people and new secondary treatment facilities for the wastewater of more than 15 million people, the money has gone into upgrading more than 70 water treatment plants and nearly 600 wastewater treatment plants, improving more than 2,400 combined sewer overflows, and, between 1991-92 and 1997-98, building or renovating more than 46,000 kilometres of water mains and more than 10,000 kilometres of sewers.[159]

Environmental performance has improved by a number of measures. Between 1990 and 1998, the percentage of plants not meeting their "consent conditions" fell from ten to less than three.[160] The total polluting loads of sewage treatment plants fell by between 30 and 40 percent during the 1990s, depending on the pollutant. Ammonia discharges fell by 37 percent. Phosphates declined by 40 percent.[161] As a result, freshwater quality improved significantly. At the time of privatization, 37 per cent of the rivers and canals tested were classified as very good or good; between 1993 and 1995, that figure increased to 59 per cent. Not all waters improved: Between 1990 and 1995, the quality of about 225 kilometres of rivers and canals deteriorated. However, during that period, the quality of more than 3,000 kilometres improved significantly. In short,

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[156] Telephone conversation with Elizabeth Brubaker, March 18, 1997.

[157] Sue Tabb, ed., *Waterfacts '97* (London: Water Services Association of England and Wales, 1997), p. 57.

[158] Office of Water Services, *1998-99 Report on the Financial Performance*, p. 5.

[159] Office of Water Services, *The Urban Waste Water Treatment Directive*, Information Note No. 24, revised June 1998; Tabb, *op. cit.*, p. 58; Water UK, *Waterfacts '98* (London: Water UK, 1998), p. 61; and Thompson Gow and Associates, *Canada's Untapped Resource: Public-Private Partnerships in Water Supply and Wastewater Treatment*, Prepared for Technology Transfer Office, Environmental Technology Advancement Directorate, Environment Canada, Technology Transfer Series 2E, September 1995, p. 30.

A World Bank analyst noted that the water service companies may have initially over-invested in infrastructure, thanks to incentives in their early years to "gold-plate" investment plans. (Caroline van den Berg, "Water Privatization and Regulation in England and Wales, *Public Policy for the Private Sector*, The World Bank, June 1997, p. 10.) Ian Byatt, then Director General of Water Services, acknowledged issues about the cost-effectiveness of some of the water industry's expenditures but stressed that incentive regulation has generally promoted efficiency. (Ian Byatt, "Life After the 1999 Periodic Review," Speech to Royal Aeronautical Society, January 26, 2000.)

[160] Environment Agency, "Water Companies: Things Can Still Get Better, Says Agency," Press Release, September 1, 1999.

[161] Environment Agency, *Achieving the Quality*, June 2000, p. 13.

environmental gains outpaced losses by more than ten to one.[162] Gains continued unabated in the following five years. In 2000, the Environment Agency announced that rivers were the cleanest they had been since before the industrial revolution and that fish, otters, and other wildlife were returning to waters long devoid of life. The agency attribute the improvements in large part to investments made by the water companies. In Environment Minister Michael Meacher's words, "The billions being invested in cleaning up our rivers are really bearing fruit."[163]

Privatization has made coastal beaches swimmable. The number of beaches in England and Wales increased from 401 in 1989 to 461 in 2000. Compliance with European standards also rose dramatically, climbing from under 76 percent in 1989 to almost 92 percent in 2000.[164] Thus, private operators have brought England and Wales 118 more usable beaches.

The water companies have also made considerable progress in stemming water losses. The Environment Agency's director of water management notes that a severe drought in the mid-1990s "brutally exposed industry shortcomings in this regard."[165] Spurred by public opinion and regulatory pressure, the water companies reduced leakage from reservoirs, distribution mains, and supply pipes by nine percent in 1996-97, 12 percent in 1997-98, 11 percent in 1998-99, and another seven percent in 1999-2000. Ofwat, the economic regulator, has asked for further cuts of six percent and four percent in 2000-01 and 2001-02 respectively.[166]

Much work remains to be done before privatization can be said to have completely fulfilled its environmental mandate. In 1998, the wastes of 13 percent of those connected to the sewerage system still received only preliminary or no treatment.[167] The Marine Conservation Society complained in 2000 that 180 million litres of raw or partially treated sewage flowed into the U.K.'s waterways or the sea each day.[168] Not until 2005 will all collected sewage be treated.[169] In the mean time, the European Commission has complained to the European Court of Justice about

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[162] Environment Agency, *State of the Environment*: *Freshwater Quality*, 1999 [online] [consulted April 8, 2001] <http://www.environment-agency.gov.uk:80/s-enviro/viewpoints/3compliance/2fwater-qual/3-2-1.html>

[163] Environment Agency, "Water Companies: Things Can Still Get Better," *op. cit.*; and Environment Agency, "Industrial Heartland Rivers Come Clean," Press Release, September 21, 2000.

[164] Environment Agency, *State of the Environment*: *Bathing Water Quality*, 1999 [online] [consulted April 8, 2001] <http://www.environment-agency.gov.uk:80/s-enviro/viewpoints/3compliance/5bathing/3-5.html>; and *Bathing Water Survey – 2000 Results for England, Wales, Scotland and Northern Ireland*, Department of the Environment, Transport and the Regions, December 2000 [online] [consulted April 8, 2001] <http://www.press.detr.gov.uk/0012/pdf/0738.pdf>

[165] Environment Agency, "Water Companies: Things Can Still Get Better," *op. cit.*

[166] Office of Water Services, *Leakage and Efficient Use of Water*, September 2000, pp. 5, 9.

[167] Water UK, *op. cit.*, pp. 34-5.

[168] *Which?* [sic], "Pollution Can Be a Killer," undated [online] [consulted July 12, 2000] <http://www.which.net/publicinterest/freereport/03killer.html>

[169] Ted Thairs, Fax to Elizabeth Brubaker, July 1, 1998.

ongoing pollution at two beaches on England's northwest coast and has asked it to impose heavy fines on the government.[170]

However, there is little doubt that the remaining required capital improvements and repairs are more likely to be made under the new private system than under the former public system, if for no other reason than that the regulatory environment is far stricter than it was before privatization. Although bathing waters are cleaner than ever, Environment Minister Meacher has called them "not good enough" and vowed, "I want to see significant improvements and our bathing waters to be regarded among the best in Europe."[171] According to another minister, Baroness Hayman, "The government will not be satisfied until we achieve close to 100 percent compliance regularly."[172] Even the water companies agree that they must do better. In the words of one industry representative, "We are not happy – one incident is one too many."[173]

The rising number of prosecutions – despite the falling number of pollution incidents[174] – and their higher public profile also demonstrate a tougher attitude towards pollution. In 1999, the Environment Agency published its first annual "Hall of Shame" to call attention to the worst polluters, saying that "they have let down the public, the environment, and their own industry." The agency's chief executive complained that the fines imposed by the courts are too low, averaging just £3,489 for the industry and not exceeding the £36,500 paid by Wessex Water for five prosecutions: "Clearly this is not sending out a strong enough message to deter water and sewage companies who have the potential to seriously damage the environment."[175] Deterrence increased dramatically the following year, when a court imposed a record fine of £250,000 on Thames Water after a mixture of raw sewage and industrial chemicals overflowed and contaminated the Thames river and ten homes. The Environment Agency expressed unreserved delight regarding the fine.[176]

Regulators continue to toughen their stance. In 2000, the Environment Agency announced the details of a five-year National Environment Programme to further enhance water quality. It identified all of the water companies' known environmental problems and required more than 6,000 specific projects – with an estimated price tag of £5.3 billion – to increase treatment levels,

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[170] "Environmental Infractions to Cost UK, Germany Dear," Environment News Service, December 22, 2000 [online] [consulted April 7, 2001] <http://ens.lycos.com/ens/dec2000/2000L-12-22-11.html>

[171] "Water quality good but could be better," Edie Weekly Summaries, November 27, 1998 [online] [consulted April 8, 2001] <http://www.edie.net/news/Archive/442.html>

[172] "Utilities asked to act over polluted beaches," BBC online network, July 10, 1998.

[173] "Water firms slammed over pollution," BBC online network, May 29, 1998.

[174] Environment Agency, "Water Companies: Things Can Still Get Better," *op. cit.*

[175] "Hall of Shame flushes out water polluters," Edie Weekly Summaries, March 26, 1999 [online] [consulted April 9, 2001] <http://www.edie.net/news/Archive/916.html>

[176] Environment Agency, "Thames Water fined a record £250,000 for serious pollution offences at Sandcliff Road and at the Thames outfall, Erith, Kent," Press Release, February 24, 2000.

reduce storm water overflows, and otherwise clean up beaches and rivers. It expected the new requirements to bring 97 percent of the beaches in England and Wales into compliance with EC standards and to bring the water industry to the point where it would pose few threats to the water environment.[177] Indeed, the Environment Agency expects that "most of the environmental damage of the past 200 years will have been repaired by 2005."[178]

Drinking water has also improved steadily under privatization. Between 1990 and 1996, the percentage of zones fully complying with prescribed limits on individual pesticides increased from 70 to 87; on lead, from 77 to 87; on faecal coliforms, from 88 to 96; on aluminum, from 90 to 97; and on iron, from 70 to 76. Smaller improvements occurred for colour, turbidity, odour, taste, hydrogen ion, nitrate, nitrite, manganese, trihalomethanes, and other parameters. Only in one category – PAH, or polycyclic aromatic hydrocarbons – did performance decline.[179] The Drinking Water Inspectorate reports that compliance has continued to improve, especially for pesticides – which have been virtually eliminated from drinking water – and coliforms. In 1999, 99.82 percent of the 2.8 million tests conducted met the required standard. The number of tests not meeting the standard was just one-tenth of that in 1992.[180] The taste of water has also improved. The *Economist* reports that a test in 2000 indicated that tasters preferred London tap water to bottled mineral waters.[181]

Within the considerable limits imposed by its near-monopoly structure, privatization has also empowered consumers. Ten customer service committees advise the economic regulator on consumer issues. Extensive consultation and information programs involve customers in both policy and performance. Dissatisfied customers have access not only to effective complaints procedures but also to redress – in the form of set compensation payments – if companies fail to meet guaranteed standards for service. Several companies' "customer charters" provide for compensation beyond that required by statute. Water company managers explain that satisfying customers makes good business sense, since it increases the speed with which bills are paid, reduces the costs of processing complaints, and, most importantly, opens up other business opportunities by enhancing the companies' images.[182] Both this attitude and tough regulations likely account for post-privatization service improvements, reflected in steep declines in the number of properties at risk of either low pressure or sewer flooding.[183]

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[177] Environment Agency, *Achieving the Quality*, *op. cit.*, pp. 1-2, 11, 23.

[178] Byatt, *op. cit.*

[179] Tabb, *op. cit.*, p. 29.

[180] Drinking Water Inspectorate, "Chief Inspector's Statement," *Drinking Water 1999*, July 2000.

[181] "Pipe dreams," *Economist*, January 4, 2001.

[182] Stuart Ogden and Fiona Anderson, "Representing Customers' Interests: The Case of the Privatized Water Industry in England and Wales," *Public Administration*, Vol. 73, Winter 1995, pp. 541-3, 550, 552, 555-6.

[183] Ogden and Anderson, p. 536; Tabb, *op. cit.*, p. 20; and Office of Water Services, *Summary of the Director General's Annual Report 1997*, June 1998.

The Costs

Despite privatization's benefits, many customers – especially in the early years of adjustment – objected to its associated costs. The massive investments in infrastructure raised prices.[184] The real average cost of unmetered domestic water services rose by 38.3 percent in the decade following privatization, while the real average cost of unmetered domestic sewage services rose by 46.6 percent.[185] Some consumers faced above-average increases, the most dramatic of which received considerable press attention.

Over time, concerns about pricing subsided. Consumers seemed to accept higher prices. Perhaps they understood that environmental improvements were expensive: Ninety-five percent of those surveyed in 1997 said that they would prefer water company profits to be spent on environmental improvements than on cuts to their water bills.[186] Perhaps they appreciated that private-sector efficiencies offset costs that would have prompted even greater increases: Between 1993 and 1998, operating costs fell by nine percent.[187] Or perhaps they simply realized that Ofwat was determined to keep prices under control. In November1999, the economic regulator reset price limits for all of the water companies, reducing average household bills by 12 percent in real terms and generally stabilizing them until 2005.[188] In so doing, he explained that thanks to higher efficiencies, the average annual household bill should be only £38 higher in 2005 than it was at the time of privatization.

As prices rose in the 1990s, customers were particularly sensitive to water company executives' generous salary, benefit, and bonus packages, which have in some cases approached £300,000.[189] A poll commissioned by the BBC in 1998 found that while more than half of the respondents thought that they got value for money from their water companies, nearly three quarters thought that water company executives were paid too much.[190] Consumers also resented the water

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[184] Of course, costs would have risen in the absence of privatization: The real average cost of water and sewerage services to unmetered domestic customers had climbed over 22 percent during the seven years preceding privatization – and that was without major investments in infrastructure. Burnell, *op. cit.*, p. 35; and Water UK, *op. cit.*, p. 46.

[185] Office of Water Services, "Unmeasured water" and "Unmeasured sewerage," unpublished figures provided by Andrea Lort, March 2, 2000.

[186] "EA announces largest ever environmental improvement programme for waterways," Edie Weekly Summaries, July 7, 2000 [online] [consulted April 7, 2001] <http://www.edie.net/news/Archive/2913.html>

[187] Office of Water Services, *Annual Report of the Director General of Water Services for the Period 1 April 1998 to 31 March 1999*, p. 25.

[188] Department of the Environment, Transport and the Regions, *Water Industry Act 1999: Delivering the Government's Objectives*, February 2000, p. 4.

[189] "Water bosses defend bonuses," BBC online network, June 28, 1998.

[190] "Getting fat on water," BBC online network, March 23, 1998.

companies' profits and dividends. In the decade following privatization, shareholders' annual returns amounted to between 11 and 16 percent in real terms.[191] Large returns led 70 percent of those surveyed by one consumer magazine to state that shareholders have benefited more than customers from privatization.[192] Such concerns encouraged the government in 1997 to levy a one-time "windfall tax" on the profits of privatized water, electricity, and other utilities; the water companies' share was £1.65 billion.[193]

In the early years of privatization, the water companies' practice of disconnecting non-paying customers also drew fire. With only eight percent of the households on water meters, most people could do nothing to keep their costs down.[194] Many had just two options: They could simply pay their rising bills or be disconnected from their water supply. Private companies had not invented the penalty of disconnection: Their public predecessors had disconnected 9,187 and 9,218 households, respectively, in the two years preceding privatization,[195] in part because changes to social assistance in 1988 had made it more difficult for those receiving state benefits to pay their water bills.[196] However, the private companies demonstrated even less patience with non-paying customers. The number of households disconnected for not paying their water bills soared to 21,282 in 1991-92. It then fell steadily, reaching 1129 in 1998-99. That year, nine of the 27 companies disconnected no households.[197] In 1999, the new Water Industry Act banned disconnection of households and vulnerable water users such as day care centres, doctors' offices, nursing homes, and schools.[198]

When disconnections were at their peak, health and social policy organizations feared possible adverse health effects. They wondered if disconnections were linked to increases in dysentery and hepatitis A. Dysentery increased in 1992, with 16,960 cases reported that year – levels not seen since the 1960s, when between19,491 and 43,285 cases were reported annually. Hepatitis A also increased in 1992, by 426 cases, to 7,856. However, the following year, hepatitis A cases fell to 4,457 – just 84 percent of the 1989 pre-privatization baseline. They fell further in the following five years, staying at between 25 and 51 percent of that baseline. In 1996, 1997, and 1998, dysentery rates were also lower than they were at the time of privatization.[199]

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[191] Byatt, *op. cit.*

[192] Jamie Doward, "The cost of metering," *Observer*, June 14, 1998.

[193] Institute for Fiscal Studies, "Taxing the Privatised Utilities," *The Economic Review*, Vol. 15, No. 4, April 1998.

[194] Office of Water Services, *Paying By Meter*, Information Note No. 27, November 1995, Revised March 1996.

[195] Richard Kingston, University of Leeds, citing National Consumer Council, *Credit and Debt: The Consumer Interest* (London: HMSO, 1990); and Office of Water Services, *Annual Report 1990*, 1991.

[196] British Medical Association, Board of Science and Education, *Water: A Vital Resource*, 1994, p. 26.

[197] Office of Water Services, "Water disconnections fall for the seventh year running," Press Release, June 17, 1999.

[198] Department of the Environment, Transport and the Regions, *Water Industry Act 1999: Delivering the Government's Objectives*, p. 4.

[199] Public Health Laboratory Service Communicable Disease Surveillance Centre NOIDS Database. Data provided by Douglas Harding, January 26 and 27, 2000.

Researchers were unable to find any causal relationship between disconnections and disease. In 1993, the British Medical Association asked its Board of Science and Education to prepare a report on the health consequences of water disconnections. While the report stressed water's vital role in preventing disease and recommended making disconnections illegal, it concluded that "a causal link has yet to be established between water disconnections and infectious diseases, such as dysentery and hepatitis A." It noted that increased rates of the two diseases could be considered part of long-established cyclical patterns. It also noted that dysentery had increased in Scotland, where water suppliers do not disconnect non-paying customers.[200]

Other researchers reached the same conclusions. In Sandwell, where high numbers of both water disconnections and cases of dysentery and hepatitis A appeared within the same post codes, doctors reported that none of the reported infections occurred in a household where the water had been cut off. Although the Director of Public Health wondered if other cases may have gone unreported, he could conclude on the basis of the evidence only that "there is a direct association between both diseases and poverty. Families who are poor and more likely to be at risk of having their water cut off, are also at most risk of these infections." Britain's Chief Medical Officer also reviewed the possible relation between gastrointestinal infections and water disconnections, finding in 1992 that "there is no evidence at this time stage that the two are connected." The following year, the Faculty of Public Health Medicine, while stressing its opposition to disconnections, likewise stated, "we accept that a convincing case has not yet been made on epidemiological grounds."[201] The economic regulator confirmed such conclusions in 1999: "Ofwat has seen little evidence of a link between water disconnections and public health.... [T]he issue is not mentioned in any Ofwat documents on disconnection."[202]

While concerns about prices, disconnections, and health effects have been put to rest, one concern about privatization remains in the mind of some critics: Privatization has reduced the number of jobs at the water utilities. In 1989, the water service companies employed 47,807 people. By 1998, that number was down to 31,310, a reduction of almost 35 percent.[203] The companies continue to cut staff: In December 1999, five companies responded to planned reductions in water prices with announcements of 3,200 layoffs. Analysts assume that further layoffs will follow.[204]

Organized labour admits that various benefits have helped offset the job losses. While confirming its opposition to privatization, the Amalgamated Engineering and Electrical Union notes that severance and early retirement packages have often been generous, making job losses tolerable if not welcome. It also notes that remaining employees have gained from their shares in

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[200] British Medical Association, *op. cit.*, pp. 2, 12, 14, 39, 44.

[201] *Ibid.*, pp. 13, 36, 37.

[202] Alex Meredith, Letter to Elizabeth Brubaker, March 5, 1999.

[203] Burnell, *op. cit.*, p. 48; and Water UK, *op. cit.*, p. 64.

[204] "Water: Behind the Tide of Job Cuts," BBC online network, December 9, 1999.

the privatized companies and that they tend to be better paid, better trained, and enjoy better working conditions.[205] The Reason Foundation points out that workers outside of the water utilities have also benefited. Workers in the construction industry have gained from the upgrading of the water and wastewater systems. And those in export or consultancy have gained from the British companies' new international prominence.[206]

If the water companies' role is to keep as many people as possible employed, privatization in England and Wales has failed. If, on the contrary, their role is to bring capital to a system long starved of cash, to upgrade and repair crumbling infrastructure, to clean up rivers and beaches, and to provide better water and better service to their customers, privatization looks much more like a success. Neither the water companies nor the environmental or economic regulators have yet achieved all that they set out to achieve. As the environment department's Michael Williamson explained, "we're still in the early days of feeling our way. Let's face it, this was the most radical and most complex privatization that's ever been adopted in the world and I don't profess that we've got it absolutely right." However, his caution hardly tempered his enthusiasm: "we've got such a wonderful water industry in England and Wales that I can go on madly about privatization."[207] Reviewing the first decade of private ownership and operations, Ian Byatt, then the water industry's chief economic regulator, was only slightly more restrained. The privatization of the water companies, he said, coupled with their regulation under a system that acts at arm's length from government, had resulted in dramatically improved service delivery, much greater efficiency, steady prices, and good returns to shareholders. He concluded, "There have been spectacular successes."[208]

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[205] Amalgamated Engineering and Electrical Union, *Employees' View of Privatization in the UK*, undated. This document discusses a number of privatizations and does not distinguish the water and wastewater privatization from others. However, it was provided in April 2001 in response to a request for trade unions' positions on water and wastewater utility privatization.

[206] Kathy Neal, Patrick J. Maloney, Jonas A. Marson, and Tamer E. Francis, *Restructuring America's Water Industry: Comparing Investor-Owned and Government-Owned Water Systems*, Policy Study No. 200 (Los Angeles: Reason Foundation, January 1996), p. 18.

[207] Michael Williamson, in *Water Delivery Systems: An International Comparison*, Transcript of panel discussion hosted by the Canadian Council for Public-Private Partnerships, November 1998, pp. 9, 29.

[208] Byatt, *op. cit.*

THE PRIVATIZATION OF CANADA'S WATER AND WASTEWATER UTILITIES

The Growing Recognition of the Need for Private-Sector Involvement

"Canadians have been slow to capitalize on the benefits of public-private partnerships in water and wastewater." So lamented Thompson Gow and Associates in a study prepared in 1995 for Environment Canada. The authors warned, "If present trends continue, Canadians may soon be facing a growing crisis in water and wastewater infrastructure. Aging infrastructure, increasing demand for services, and reduced government resources are all major contributing factors to this crisis. As experience in France, England and Wales, and the United States demonstrates, private sector participation in the water and wastewater industry could be an important part of the solution to the problems facing Canada."[209]

The crisis that Thompson Gow and Associates warned of may well be upon us. The Walkerton tragedy called attention to severe problems plaguing water infrastructure all across Canada. In the months following the tragedy, governments issued boil-water advisories for 90 Quebec drinking water systems in need of urgent repairs[210] and for 188 Newfoundland communities with inadequate or no chlorination.[211] Similar advisories covered more than 50 communities in southeastern B.C.[212] and another 28 in Saskatchewan.[213] Water systems in 171 aboriginal communities were reported to pose health risks.[214] Inspections revealed deficiencies at 357 of Ontario's 645 water treatment plants.[215]

A primary problem identified by Thompson Gow and Associates was the public sector's inability to meet the required levels of capital investment. Fixing Canada's water and wastewater problems will require billions of dollars. The National Round Table on the Environment and the Economy suggested in 1996 that over the following 20 years, Canada would need to invest between $38 billion and $49 billion to maintain and refurbish existing water and sewage infrastructure. In addition, it estimated, it would need to invest $41 billion in new stock. These investments would be required to meet existing standards; tighter standards would require even

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[209] Thompson Gow and Associates, *Canada's Untapped Resource: Public-Private Partnerships in Water Supply and Wastewater Treatment*, Prepared for Technology Transfer Office, Environmental Technology Advancement Directorate, Environment Canada, Technology Transfer Series 2E, September 1995, pp. 1, 39.

[210] Ingrid Peritz, "Quebec calls for urgent repair of drinking-water systems in 90 communities," *Globe and Mail*, August 19, 2000; and "Boil-water orders issued," *National Post*, August 19, 2000.

[211] Sharon Boase, "One town in four now boiling water," *St. John's Telegram*, June 24, 2000.

[212] "Decade-old water advisory lifted in B.C. village," CBC News, December 28, 2000.

[213] "Saskatchewan issues water warnings," CBC News, December 15, 2000.

[214] Andrew Orkin, "The message of Walkerton," letter to the editor, *Globe and Mail*, May 30, 2000; and Mark MacKinnon, "Native reserves harbour dirty secrets," *Globe and Mail*, August 8, 2000.

[215] Ontario Ministry of the Environment, "Environment ministry completes inspection of 645 water treatment plants," News Release, December 21, 2000.

higher investments. The Round Table stressed that its estimates were conservative, noting high-end projections for new infrastructure requirements of $100 billion.[216] The Canadian Water and Wastewater Association roughly echoed the Round Table's projections, estimating that between 1997 and 2012, $27.6 billion would be required to renew water treatment and distribution and $61.4 billion would be needed to upgrade sewers and wastewater treatment. It warned that further investment would be required to serve an expanding population or to meet more stringent standards.[217]

The tens of billions required are not, however, readily available. Michael Power, president of the Association of Municipalities of Ontario, charged in June 2000 that "the single most important impediment to the successful maintenance and rehabilitation of Ontario's municipal infrastructure is a shortage of funds."[218] In recent years, subsidies – federal and provincial alike – have declined. As municipalities struggle to meet their needs with less help from upper levels of government, their other traditional financing sources – taxes and debt – are increasingly constrained. The downloading of responsibilities from provincial governments has stressed municipal budgets and rising tax rates have led to "ratepayer fatigue."[219] Politicians are also reluctant to tap consumers for their share of the costs, fearing a voter backlash and an industrial and commercial exodus.[220] As the Quebec government's Commission on Water Management notes, engaging in costly infrastructure repair is "politically speaking, unprofitable" for municipalities.[221]

Within government bureaucracies and consulting circles, there is widespread recognition that privatization could help solve this and other problems troubling our water and wastewater systems. Throughout the 1990s, numerous studies of privatization resulted in almost as many endorsements of the process. The studies identified a tremendous range of potential benefits. Thompson Gow and Associates enumerated the economic and environmental benefits as follows: higher levels of financing; shorter construction schedules; greater incentives to implement new technologies; reduced maintenance costs; increased tax revenues; revenue windfalls from asset

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[216] National Round Table on the Environment and the Economy, *State of the Debate on the Environment and the Economy: Water and Wastewater Services in Canada*, 1996, pp. 10, 35.

[217] Canadian Water and Wastewater Association, *Municipal Water and Wastewater Infrastructure: Estimated Investment Needs 1997 to 2012*, April 1997, revised April 1998, p. iv.

[218] Michael Power, "Municipal Action Plan – Protecting Ontario's Water," Speech to the City of Windsor, June 12, 2000.

[219] Price Waterhouse, *Study of Innovative Financing Approaches for Ontario Municipalities*, commission by the Municipal Finance Branch of the Ontario Ministry of Municipal Affairs, March 1991, pp. 13-4; Michael Shaen, ed., *The "3Ps" of Municipal Infrastructure: How Local Governments Can Use Public/Private Partnerships to Finance, Build and Operate Services*, Acumen Consulting Group, September 1997, p. 11; and Provincial-Municipal Investment Planning and Financing Mechanism Working Group, *Meeting the Challenge*, no date (the group was established in November 1991), p. 18.

[220] Thompson Gow and Associates, *op. cit.*, p. 8.

[221] Commission sur la gestion de l'eau au Québec, "The commission opposes the privatization of municipal water services," Press release, May 3, 2000.

sales; better valuation of water resources; and improved environmental performance. It also noted that public-private partnerships in Canada would improve the domestic water industry's capacity to export services to growing world markets.[222]

The National Round Table on the Environment and the Economy stressed this last point in its Sustainable Cities Initiative, where it promoted the private provision of water and wastewater systems in Canada as a way of positioning Canadian firms abroad to meet the growing demand for private involvement in water and wastewater infrastructure. Before they can compete to provide services abroad, Canadian firms need experience at home. "The most important action that Canadian governments at every level can take is to use the PPI [public-private infrastructure] model themselves," the Round Table explained, adding, "Canada has a window of opportunity to position itself as a front-runner, rather than an also-ran, in providing real urban solutions. We just need to get started – now."[223] The interest in opening up a major export market also appeared in the Round Table's 1996 report on water and wastewater services. Perhaps more important was that report's acknowledgement of the domestic gains to be had from privatization. While noting the lack of a national consensus on privatization, the report concluded, "given public fiscal realities, a major infusion of private capital is required to maintain existing systems and build new facilities."[224]

Among the government agencies persuaded of privatization's advantages was Industry Canada, which saw in it potential for meeting domestic environmental needs while building a base for the export of environmental services. In 1995, the agency sponsored a series of workshops across the country to stimulate interest in public-private partnerships for municipal environmental infrastructure and services. The Vancouver workshop helped prompt a federal-provincial initiative to involve the private sector in solving British Columbia's wastewater treatment problems. The report of a subsequent "awareness workshop" touted public-private partnerships – covering a broad continuum from operations and maintenance contracts to build-own-operate agreements – as a "robust and flexible" framework for dealing with municipal sanitation. Their benefits, the report elaborated, include: access to capital; enhanced debt ratings; otherwise unaffordable investment in new or improved facilities; more rapid development; more efficient operation; greater cost control; new revenues; reduced public-sector risk; improved valuation and accounting of water resources; improved environmental performance; increased quality control; better asset preservation; deep technical expertise; greater incentives for technological developments; and improved capacity for domestic companies to compete internationally.[225]

Ontario was bombarded by similar information. The Ministry of Municipal Affairs heard it from

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[222] Thompson Gow and Associates, *op. cit.*, pp. v, 40, 41, 41.

[223] National Round Table on the Environment and the Economy, *The Sustainable Cities Initiative: Putting the City at the Centre of Public-Private Infrastructure Investment*, no date, pp. 3-4.

[224] National Round Table on the Environment and the Economy, *State of the Debate*, *op. cit.*, pp. 4, 17.

[225] The Delta Partners, *Final Report: Awareness Workshops for Public-Private Partnerships in Wastewater Treatment in British Columbia*, March 1997.

Price Waterhouse after commissioning a study of innovative financing approaches for municipal infrastructure, including water and waste water systems. The consultant sang the praises of voluntary private sector participation, calling it "perhaps the most desirable mechanism for funding municipal infrastructure." Among the significant benefits for the public sector were: access to capital; access to technology; revenue enhancement; risk allocation; increased efficiency; and reduced construction costs and times.[226]

The message resurfaced in the report of the Provincial-Municipal Investment Planning and Financing Mechanism Working Group, whose membership included representatives of local and regional municipalities, school boards, and the Ontario government. The report noted that the private sector is often better positioned than the government is to manage the risks associated with project financing, operating, marketing, and regulation. Communities taking advantage of the private sector's experience and skills, flexibility, and access to funding could look forward to undertaking projects that could not otherwise have gone forward, to lower project and operating costs, and to re-directing government resources to other pursuits. Furthermore, firms could develop highly exportable expertise.[227] Another working group – this one an infrastructure services subcommittee with representatives of the Ministry of Environment and the regions and municipalities in the Greater Toronto Area – included public-private partnerships in its list of basic strategic initiatives and related options.[228]

Despite a seemingly endless stream of studies endorsing the concept, privatization remains the exception to the rule in Ontario and, more generally, in Canada. Ontario has made several feints toward privatization. In 1996, then Environment Minister Norm Sterling announced his intention to privatize the Ontario Clean Water Agency. Although the Office of Privatization began a review of the agency in 1998, the proposal languished.[229] Another privatization initiative surfaced in June 2000. A cabinet document prepared by the Minister of Municipal Affairs revealed plans to instruct the province's 571 municipal governments to examine services in order to determine whether public or private provision would provide the best value. If governments could not prove that a public service provided better value, they would not be permitted to directly provide that service.[230] The press caught wind of these plans at the time the government was establishing Walkerton Inquiry. Sensitive, perhaps, to the inquiry's plans to broadly review the provision of water services, Premier Harris denied any intention to force municipalities to

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[226] Price Waterhouse, *op. cit.*, Appendix 1, pp. 2-3.

[227] Provincial-Municipal Investment Planning and Financing Mechanism Working Group, *op. cit.*, pp. 20-1.

[228] Infrastructure Working Group Services Subcommittee, *GTA 2021 Infrastructure Requirements, Part 3: Water and Sewer Systems*, March 1992, p. 3.22.

[229] Martin Mittelstaedt, "Ontario to sell water, sewage agency," *Globe and Mail*, October 17, 1996; Daniel Girard, "Sterling says water sell-off in works," *Toronto Star*, October 18, 1996; and "Ontario to sell clean water agency," *Financial Post*, October 18, 1996. Critics maintain that "poison pills" in the agency's contract with Peel Region have rendered it unsellable. John Ibbitson, "Crown firm won bid, avoided selloff with contractual 'poison pill,'" *Globe and Mail*, April 6, 2000.

[230] John Gray, "Tories study privatizing municipal water, sewage," *Globe and Mail*, June 13, 2000.

examine privatization. “Nobody,” he insisted, “is considering any development or privatization that I know of, of water or sewer.”[231] Seven months later, however, the premier announced that SuperBuild Corporation would be hiring consultants to advise it on the restructuring of the province’s water sector. The corporation would “see what kind of interest there is” within the private sector and explore private finance, design, construction, and operation options.[232]

Barriers to Privatization

Given the Ontario government’s interest in privatization, the consensus among experts that privatization holds great promise, and the overwhelming evidence of privatization’s benefits elsewhere, why do the province and its municipalities so often lose their courage when faced with a decision to privatize? Some are slowed by financial impediments, both real and imagined. A number of tax policies tilt the playing field in favour of the public sector.[233] Furthermore, municipalities commonly believe that public capital may be obtained more cheaply than private capital. Public borrowing costs may indeed be lower for municipalities with good credit ratings. The so-called advantage of public financing, however, fails to recognize the real costs of cheap money: the reduced credit ratings and increased future borrowing costs that may accompany higher levels of debt, the opportunity costs associated with using the capital for water and wastewater systems instead of other projects, and the assumption of financing risks by taxpayers rather than shareholders.[234] Perhaps more important is the fact that private-sector efficiencies are generally large enough to offset any financial advantages provided by public operations.

Generally, it is politics rather than economics that gets in the way of privatization. Unions lobby hard for services to remain in the public realm. Many environmentalists likewise fight greater private sector involvement, often on the grounds that water is a uniquely precious substance that must not be tainted by the marketplace. Anti-privatization activists also raise the spectre of water exports, oblivious to the reality that private firms acquire the right to serve customers in a given area rather than an unlimited right to extract water from a given source for whatever purpose suits them.

Given the barrage of anti-privatization “information” – however inaccurate and irrational – Canadians have been exposed to, it is hardly surprising that many would develop concerns about the process. The Canadian Union of Public Employees claims that Canadians, by a margin of five to one, prefer publicly owned to privately owned water utilities.[235] The Canadian Environmental Law Association and Great Lakes United report the results of another poll: When

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[231] Richard Mackie, “Harris drops privatization; more E. coli found,” *Globe and Mail*, June 15, 2000.

[232] Richard Mackie, “Water systems to be revamped, Harris confirms,” *Globe and Mail*, January 23, 2001.

[233] Thompson Gow and Associates, *op. cit.*, p. 8.

[234] Mylène Levac and Philip Wooldridge, “The fiscal impact of privatization in Canada,” *Bank of Canada Review*, Summer 1997, p. 38.

[235] Canadian Union of Public Employees, *Hostile Takeover*, p. 23, citing November 1998 Vector Poll.

asked who should control water systems, 76 percent of the respondents said municipal officials.[236] Although these polls didn't test public support for publicly controlled, privately operated systems, many agree that the public harbours concerns about privatization and that governments' fears of adverse public opinion may be barriers to successful partnerships.[237]

Another factor preventing governments from embracing privatization is simply the fear of the unknown. Municipalities have little experience. They want more information on what works and what doesn't. They want case studies, templates for successful contracts, and models for creating and managing partnerships and assessing their success or failure. As their counterparts both within and beyond Canada's borders accumulate and share experience, they will doubtless gain confidence. Ultimately, as one provincial official noted, they will just have to take the plunge: "The public sector needs to jump in the pool and try it. They are looking too long. They need to be bolder. Part of the learning process is making mistakes."[238]

Promising Experiments

While privatization remains rare, Canadians are takings steps in that direction. In 1998, the Canadian Council for Public-Private Partnerships (CCPPP) inventoried dozens of planned or completed public-private partnerships for water and wastewater projects across the country.[239] The same year, CCPPP, the Canadian Chamber of Commerce, and the Federation of Canadian Municipalities sponsored a national survey of 211 players, including 34 provincial government representatives and 97 politicians and administrators from 57 municipalities with over 40,000 residents. Of the municipal and provincial respondents, five to 15 percent expected to see new or expanded partnerships for sewer construction or water supply within two years.[240]

Canada's early contracts have generally brought specialized skills and savings to communities. They have less often brought infusions of private capital, in part because, as noted above, many municipalities believe they can obtain public capital more cheaply. It is likely only a matter of time before private financing becomes commonplace. At least four contracts in Alberta, Manitoba, and Ontario have involved a mix of public and private financing.[241] Moncton, New Brunswick's, new drinking water plant – discussed in detail below – was completely privately

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[236] Claire Farid, John Jackson, and Karen Clark, *The Fate of the Great Lakes: Sustaining or Draining the Sweetwater Seas?* (Toronto: Canadian Environmental Law Assn. and Great Lakes United, February 1997), p. 69.

[237] Canadian Council for Public-Private Partnerships, *Building Effective Partnerships*, September 1998, pp. 26, 40, 49, 50.

[238] Canadian Council for Public-Private Partnerships, *Building Effective Partnerships*, *op. cit.*, pp. 4, 34, 39.

[239] Canadian Council for Public-Private Partnerships, *Public-Private Partnerships: Canadian Project and Activity Inventory – 1998*, September 1998.

[240] Canadian Council for Public-Private Partnerships, *Building Effective Partnerships*, *op. cit.*, pp. 16-17.

[241] Canadian Council for Public-Private Partnerships, *Public-Private Partnerships*, *op. cit.*, pp. 38, 54, 65, 39; and John Presta, Personal communication, August 4, 2000.

financed. USF Canada, the firm that won that job, is confident that, with its parent Vivendi, it can meet the capital needs of any Canadian municipality.[242] United Water Canada, backed by Suez Lyonnaise des Eaux, likewise assures prospective clients of its financial capabilities: "With combined revenues of over $40 billion worldwide and over $3 billion in assets already under management in North America, United Water has the financial resources necessary to finance capital improvements."[243]

Ontario

More than two dozen Ontario communities have entered into water or wastewater agreements with private operators.[244] Another five communities in northern Ontario are served by privately owned water works.[245] Typical arrangements involve three-to-five year contracts for operating the sewage treatment plants of small communities such as Forest, Listowel, Petrolia, and Plimpton. Tiny communities can also work with private firms, as is evidenced by the contract to finance, design, build, and operate a sewage system for Campden, a hamlet with just 80 homes.[246] Rarer are contracts that cover many facilities spread out over a large geographic area, such as that signed in 1998 by the Regional Municipality of Haldimand-Norfolk and the Professional Services Group; the contract covered seven wastewater treatment plants, six lagoon systems, and 43 pumping stations serving 46,600 people living in a 2,800-square-kilometre area.[247] Also rare are contracts for systems serving large populations, such as the 400,000 people in the Regional Municipality of Hamilton-Wentworth – a contract described in detail below.

In December 2000, the Ontario town of Goderich – population 7,500 – entered into a water and wastewater operations and maintenance contract with USF Canada. The town had received eight submissions in response to a request for qualifications, and had weighed four proposals. The five-year contract, renewable for another five, will bring savings of over $71,000 a year.[248] While the decision ultimately rests with the town council, town administrator Larry McCabe assumes that savings will be used to benefit the water and wastewater systems.[249] The savings largely reflect a reduction in staff from eight to six, made possible in part by integrating the operations of the water and wastewater systems, which had previously been split between the local Public

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[242] Wally MacKinnon, E-mail to Elizabeth Brubaker, April 3, 2001.

[243] United Water Canada, *Delegated Management*, undated brochure.

[244] Ontario Office of Privatization, "Government's role in operation of water and sewage treatment systems to be reviewed," Press Release, March 9, 1998; and Thomas Walkom, "Is our water seeping into corporate hands?" *Toronto Star*, January 27, 2001.

[245] Ontario Ministry of the Environment, *Drinking Water in Ontario: A Summary Report 1993-1997*, 2000, p. 10.

[246] Canadian Council for Public-Private Partnerships, *Public-Private Partnerships*, *op. cit.*, pp. 64-8, 74-5, 78-9.

[247] USFilter, "Haldimand-Norfolk, Ontario," *Statement of Qualifications*, September 2000.

[248] Larry McCabe, Fax to Elizabeth Brubaker, November 8, 2000.

[249] Larry McCabe, E-mail to Elizabeth Brubaker, December 6, 2000.

Utility Commission and the municipality. In keeping with council's concern for its employees' welfare, no staff were laid off: One was re-deployed to the electric utility and another took early retirement. All of the transferred staff were given equal or better wages and benefits.[250]

Savings, while welcome, did not drive Goderich's decision to privatize. "The primary objective," mayor Delbert Shewfelt explained, was "to improve safety and reduce the risk of harm to our residents, and we feel that a public-private partnership best accomplishes these goals."[251] The town also anticipated improvements in service – in particular, a reduction in the number of bypasses at the sewage treatment plant – and in computer-enhanced equipment maintenance.[252] The town looked forward to taking advantage of USF's – and parent Vivendi's – expertise. The deal gave the town access to state-of-the-art management systems along with technology at below-market costs.[253] It also gave it an operator who can't afford to make mistakes. In the words of the mayor, "The chances of getting in trouble decrease because they have a huge reputation to live up to."[254] The mayor welcomed the transfer not only of responsibility for treatment but also of "some of the liabilities," noting the inherent hazards of providing water in an agricultural area. The Walkerton tragedy, it seems, had reminded the town of its own potential vulnerability.

Ontario's largest – and most controversial – privatization to date occurred in Hamilton.[255] The municipality signed two contracts, effective January 1, 1995, with Philip Utilities Management Corporation (PUMC) and its parent, Philip Environmental. A ten-year contract covered the management and operation of one water treatment plant and three wastewater treatment plants, and a renewable shorter-term contract covered the outstations and a high lift pumping station. In 1999, Azurix purchased PUMC and took over the firm's contracts.

The partnership's successes and failures have been vigorously debated. Hamilton officials have repeatedly praised the arrangement for bringing savings in operating costs and economic development benefits.[256] In contrast, CUPE has called it "the worst example, bar none, of the

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[250] USFilter, "Goderich, Ontario," *Statement of Qualifications*, September 2000.

[251] Tim Cumming, "Town, USF sign deal to run water, wastewater," *Goderich Signal-Star*, November 1, 2000.

[252] Canadian Council for Public-Private Partnerships, *Overview of Successful Public-Private Partnerships in the Water Sector*, November 2000, p. 13.

[253] "Benefits of a Partnership Between the Town of Goderich and USF Canada," undated. Provided by Larry McCabe.

[254] Christopher Guly, "Goderich water goes private," *Ottawa Citizen*, July 25, 2000.

[255] On January 1, 2001, the six municipalities comprising the Region of Hamilton-Wentworth amalgamated to become the City of Hamilton.

[256] Art Leitch, E-mail to editor@summitconnects.com, February 3, 2000; and Canadian Council for Public-Private Partnerships, *Overview of Successful Public-Private Partnerships, op. cit.*, p. 2.

horror stories we've heard about privatization."[257] The truth lies somewhere in between: Hamilton's approach to privatization has brought limited savings and investment and has permitted the city to offload labour-relations problems. On the other hand, neither PUMC nor its successor have yet solved many of the severe performance problems plaguing the city's systems.

Before privatization, Hamilton's poorly managed, over staffed, persistently polluting wastewater system disgraced the community. Yet privatization was not driven by a search for solutions to these problems. Instead, Hamilton privatized primarily in order to aid a local company and to reap economic development benefits. Rather than engaging in a competition to find the most experienced operator at the best price, it negotiated a sole-sourced agreement. Hamilton was not troubled by the newly formed PUMC's lack of expertise; indeed, providing it with experience was a key element of the venture.[258] Nor did Hamilton mind passing up greater opportunities for savings. KPMG's Will Lipson, hired to evaluate the fairness of the proposal, explained, "sole sourcing may not be the way to get the absolute best deal, but it is a way to get a fair deal that's good enough, that's a win-win situation and addresses the criteria that matter the most, which in this case revolve around economic development."[259]

PUMC and Philip promised a variety of investments in the community.[260] They lived up to approximately one-half of their promises. PUMC did locate its head office in Hamilton, but instead of constructing new office space, the firm, with Hamilton's blessing, refurbished several floors of an existing building.[261] By the end of 1998, PUMC had invested $6.5 million in the region.[262] Although it had promised $15 million in capital investments, Hamilton agreed that it had fulfilled its obligations in this regard.[263] Hamilton was also satisfied that Philip had lived up

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[257] Jon Wells, "Water deal with PUMC called a horror story," *Hamilton Spectator*, January 30, 1999, quoting CUPE president Judy Darcy.

[258] John Anderson, *Privatising Water Treatment: The Hamilton Experience*, Report prepared for the Canadian Union of Public Employees, January 1999, p. 6, citing Leo Gohier's presentation at *Forming Successful Public Private Partnerships*, Toronto, May 1997.

[259] Nolan Bederman, "Philip Utilities Management Corp. and the Region of Hamilton-Wentworth: Public-Private Partnership for Wastewater Treatment," in *Case Studies in Public-Private Partnerships*, Nolan Bederman, Frank DeLuca, and Michael J. Trebilcock, Jointly sponsored by the Canadian Council for Public-Private Partnerships and the Centre for the Study of State and Market at the University of Toronto Faculty of Law, August 1996, p. 25.

[260] The Region of Hamilton-Wentworth, Philip Utilities Management Corporation, and Philip Environmental, *Plant Operations Agreement*, December 30, 1994, Article 12.01, pp. 56-8.

[261] Bederman, *op. cit.*, p. 29.

[262] M. Stirrup and K. Stolch (signatories), *1998 Philip Utilities Management Corporation (PUMC) Performance Review (ENV99025)*, March 25, 1999.

[263] *Plant Operations Agreement: Fourth Amending Agreement and Consent*, May 17, 1999, Section 2 (d), p. 6 and Schedule S.

to its promise to create 100 jobs.[264] At the time of PUMC's sale to Azurix, Azurix inherited the unfulfilled promises to develop an environmental enterprise centre and to establish an international training centre.

Privatization brought savings in operating costs. Hamilton agreed to pay the operator an annual fee equal to the $18.6 million it had previously budgeted to run the plant, less $500,000 in guaranteed savings, $103,000 to cover the environmental services department's overhead, and $100,000 for contract co-ordination.[265] The contract also allotted Hamilton a portion of further cost savings, should they materialize. The operating savings – comprising less than four percent of Hamilton's previous costs – were modest compared to those achieved in jurisdictions that have contracted out operations through a competitive bidding process. When Azurix purchased PUMC, it sweetened the pot somewhat. As a condition of taking over the contract, it agreed to design and build, at its own expense, a pre-treatment facility for the Woodward Avenue sewage treatment plant – a commitment valued at $7.5 million.[266]

Staff reductions – made possible in part by changes in plant processes and computerized automation – generated many of the operating savings. PUMC's contract with the region required the firm to retain existing staff for 15 months. Once that limit had passed, it lost no time in paring numbers. By 2000, just 51 employees remained in a system that had maintained 122 positions five years earlier.[267] The deep cuts – along with management's expectations that workers would cross-train and multi-task – poisoned labour relations. Union opposition to the operator's introduction of a training program to facilitate automation, equip workers to perform a wide variety of tasks, and ensure literacy and numeracy led to a 111-day strike in 1999. Labour relations have improved since then. Representatives of both the operator and the union now sound optimistic – in the latter's case, cautiously so – about their working relationship.

The contractor's environmental performance is more difficult to assess. Decades of inadequate sampling make meaningful comparisons between the public operator and its private successors impossible. Taking Hamilton's effluent data at face value, one measure of performance – biochemical oxygen demand – has improved while others – suspended solids, phosphorus,

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[264] M. Stirrup and K. Stolch, *op. cit.*; and *Plant Operations Agreement: Fourth Amending Agreement and Consent, op. cit.*, Section 2 (d), p. 6. Azurix further strengthened local employment numbers by locating its North American headquarters in Hamilton and moving an engineering division there.

[265] *Plant Operations Agreement, op. cit.*, Article 5.01, p. 30, and Schedule M.

[266] *Plant Operations Agreement: Fourth Amending Agreement, op. cit.*, Section 2 (c), p. 4; and Art Leitch, E-mail to editor@summitconnects.com, February 3, 2000.

[267] Mark Hudson, E-mail to Elizabeth Brubaker, February 12, 2001.

Others' figures on staffing levels vary. The *Plant Operations Agreement* (Schedules G1, G2, and G3) lists 138 positions (not all of which were filled) in 1994. According to Leo Gohier and Jeff McIntyre, approximately 25 voluntary retirements at the end of 1994 brought the number of positions down to approximately 113, approximately 12 of which were vacant. Thus, PUMC started out with approximately 101 filled positions. Meeting with Elizabeth Brubaker, December 20, 2000.

According to Mr. Hoath, the number of filled, unionized positions fell from 108 before privatization to 32 in January 2001. E-mails to Elizabeth Brubaker, January 25, 2001 and February 21, 2001.

nitrogen, and ammonia – have worsened.[268] In any case, it is clear that myriad problems have continued to beset the sewage system. Sewage has frequently bypassed at least one stage of the full treatment process.[269] Levels of suspended solids, phosphorus, and biochemical oxygen demand have periodically exceeded municipal and provincial limits.[270] A series of sewage spills have fouled local environments. The worst incident occurred in January 1996, when a pump failure at the Woodward Avenue treatment plant flooded more than 100 homes and businesses and spilled 182 million litres of raw sewage mixed with rain and melting snow into local creeks and Hamilton harbour. PUMC insisted that the spilled wastewater, extremely diluted, was cleaner than the receiving water and that "the bay was not affected one iota."[271] Regardless, as a "goodwill gesture," it donated $27,000 to the Bay Area Restoration Council, a group monitoring the rehabilitation of Hamilton harbour.[272] It was harder to lay to rest the question of liability for flood damages. One-hundred-fifteen victims had claimed $2.5 million in damages, and squabbles with Hamilton over who should pay dragged on for years. Not until 1999, when Azurix sought council's consent to PUMC's sale, did Hamilton obtain relief: Azurix agreed to resolve the claims at its expense.[273]

Municipal staff generally defend the contractor's environmental performance. They maintain that it is, however imperfect, an improvement over that which the city itself could achieve. They point out that poor performance often reflects circumstances beyond the operator's control. The system needs $570 million in expansion and upgrades – which are Hamilton's responsibility.[274] As Leo Gohier, then Hamilton's Director of Water and Wastewater, explained, "It's falling apart faster than we can fix it."[275]

The West

A number of Alberta communities are also experimenting with contracting out the operations and maintenance of their water or sewage systems. In its 1998 inventory, CCPPP described five

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[268] Effluent quality data for the period from 1990 through 1999 were provided by Water Quality Manager Mark Stirrup, April 12, 2000.

[269] Steve Buist, "Ministry investigates Woodward sewage spill," *Hamilton Spectator*, February 2, 1999; Steve Buist, "Sewage plant can't handle volume," *Hamilton Spectator*, February 2, 1999; John Percy, Letter to Greg Hoath, March 18, 1999; and Rick Hughes, "Ministry, region at odds over effluent measuring," *Hamilton Spectator*, March 13, 1999.

[270] Steve Buist, "Ministry investigates Woodward sewage spill," *Hamilton Spectator*, February 2, 1999; and Wylie Rogers, "Illegal wastewater dumping triples," *Hamilton Spectator*, October 11, 1999.

[271] Standing Committee on Resources Development, *Hansard*, April 16, 1997, 1610.

[272] Mark McNeil, "Is Ontario going soft on polluters?" *Hamilton Spectator*, February 6, 1998.

[273] *Plant Operations Agreement: Fourth Amending Agreement*, *op. cit.*, Section 2 (b), p. 4.

[274] Eric McGuinness, "Sewage upgrade tab is $570m," *Hamilton Spectator*, April 28, 2000.

[275] Steve Buist, "The business of wastewater treatment," *Hamilton Spectator*, November 28, 1998.

such arrangements in the province. Among the contracting agencies was the Alberta Capital Region Wastewater Commission, which has contracted out the operations of some of its facilities for more than 15 years. In 1998, it awarded an eight-year contract to OMI Canada for the operation and maintenance of one sewage treatment plant and five pumping stations serving approximately 150,000 people in 12 municipalities surrounding Edmonton. The contract brought savings of approximately ten percent in the first year and 18 percent in subsequent years. The savings will average $400,000 per year.[276]

Several communities outside Edmonton took a different approach to their water supply system. In the early 1990s, Tofield, Ryley, and their neighbours wanted to pipe treated water from Edmonton. Their county approached CU Water Ltd., a division of a natural gas company that owned a right-of-way along the highway and could thus build a pipeline without spending time or money acquiring land or easements. Two years of negotiations and a plebiscite gaining public support for the project followed. CU agreed to design, build, own, operate, and maintain a pipeline in exchange for an exclusive 25-year franchise. It also agreed to finance $7.1 million of the construction costs, with the province providing the balance of $4.9 million. The agreement entitles the Alberta Public Utilities Commission to buy back the system at net book value at the 15th, 20th, and 25th years of the agreement, with a five-year notice period. Ryley administrator Bob Luross called the deal a godsend, adding, "It's been a big load off our minds. Our treatment plant was 40 years old and it was a big chore to keep up. Now they run everything and we are out of the water business."[277]

Privatization is also gaining momentum in British Columbia, where 187 privately owned water utilities serve approximately 30,000 households in the province.[278] More than half of these utilities are very small, serving fewer than 50 customers in trailer parks, resort areas, subdivisions, or isolated communities. The largest – White Rock Utilities – has been operating since 1913 and supplies 18,500 people.[279] The province's two largest cities are slowly involving the private sector in water and wastewater projects. Victoria has contracted with a private firm to treat septage from approximately 100,000 people.[280] The Greater Vancouver Regional District (GVRD) is engaging the private sector in the design, construction, and operation of the Seymour water filtration plant. The plant – the district's first filtration plant – will remove Giardia and Cryptosporidium cysts, reduce bacteria and organic matter, and eliminate turbidity in order to make disinfection more effective, ensure compliance with provincial and federal standards, and

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[276] Canadian Council for Public-Private Partnerships, *Public-Private Partnerships*, *op. cit.*, pp. 36-9; and Canadian Council for Public-Private Partnerships, *Overview of Successful Public-Private Partnerships*, *op. cit.*, pp. 6-7.

[277] Canadian Council for Public-Private Partnerships, *Public-Private Partnerships*, pp. 37-8; Shaen, pp. 41-2; and Paul Waldie, "Private water system running in Alberta," *Financial Post*, February 12, 1994.

[278] B.C. Ministry of Environment Lands and Parks, Water Management Branch, Utility Regulation Section, *Annual Report for the Period Ending March 31, 2000*, draft; and Rick Couroux, Telephone conversation with Elizabeth Brubaker, May 15, 2000.

[279] Chester Merchant, Telephone conversation with Elizabeth Brubaker, May 17, 2000.

[280] Mike Williams, Telephone conversation with Elizabeth Brubaker, May 10, 2000.

improve the appearance of the water.[281]

GVRD issued a request-for-qualifications in the fall of 2000 and, in February 2001, announced a shortlist of four consortia from which it will invite full proposals. It plans to issue a draft request-for-proposals in May 2001, followed by a final version in June. To help offset the costs of preparing proposals, it will offer $100,000 honoraria to the consortia that submit unsuccessful proposals. It expects to award a contract in 2002 and to see the plant completed in 2005. It envisions a contract with a 20-year operating term. According to lead engineer Mark Ferguson, involving the private sector is "all about efficiency." The district has simply found public-private partnerships to be more competitive than purely public alternatives. GVRD believes, however, that its triple-A bond rating gives it access to cheaper money than the private sector can obtain. It therefore expects to finance the project itself.[282]

Atlantic Canada

Atlantic Canada has also seen some private sector involvement in both water supply and sewage treatment. Nova Scotia's most important private wastewater initiative is currently underway in Halifax Regional Municipality. The proposed project – the design and construction of four new sewage treatment plants and their private operation for 30 years – will stop the centuries-old practice of dumping raw sewage into Halifax Harbour. The 1998 request for expressions of interest drew 22 responses, convincing Halifax that the private sector had sufficient capacity to undertake all aspects of the project, including financing.[283] The city continues to consider several financing options: It is prepared to finance two-thirds of the capital costs; it is soliciting federal and provincial funding; and it is also open to private financing should that option be less expensive than public alternatives.[284] Halifax has received proposals from two private consortia and a reference bid from staff. It has applied to the Supreme Court of Nova Scotia for declaratory relief regarding the completeness of the proposals and the appropriateness of evaluating them. If it gets a favourable ruling from the court, it will review the proposals by the end of June, 2001, and sign a contract a month later.[285]

The East coast is also home to Canada's largest completed private drinking water project. USF Canada operates and maintains the water filtration plant that it financed, designed, and built in Moncton, New Brunswick. Prior to the plant's construction, the city had struggled with

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[281] Greater Vancouver Regional District, Seymour Filtration: Project Overview, September 2000 [online] [consulted April 11, 2001] <http://www.gvrd.bc.ca/services/water/projects/seymour/Seymour_DBO/overview.htm>

[282] Mark Ferguson, Telephone conversation with Elizabeth Brubaker, May 9, 2000; and Mark Ferguson, E-mail to Elizabeth Brubaker, April 11, 2001.

[283] K. R. Meech, "Request for Expressions of Interest, Harbour Solutions Project," Memo to Mayor Fitzgerald and members of Halifax Regional Council, July 2, 1998.

[284] Maurice Lloyd, E-mail to Elizabeth Brubaker, May 9, 2000.

[285] Maurice Lloyd, Telephone conversation with Elizabeth Brubaker, April 12, 2001.

discoloured, bad tasting, sub-standard water for many years. High bacteria counts in the municipal water system had led to several boil-water orders, including one in 1997 that stretched for 36 days.[286] The following year, the city's water failed to meet standards for pH, turbidity, and total trihalomethanes.[287] At one point in 1999, contamination with coliform bacteria prompted the city to haul clean water in stainless steel tanker trucks from another town's treatment plant.[288] One reporter marvelled over city council's decision to solve the problem by constructing its own filtration plant: "Imagine drinking water right out of the tap and enjoying it. For most Greater Monctonians, that concept is as foreign as some of the substances they have found in their water over the past couple of years."[289]

Unable to obtain provincial or federal funding for a water treatment system, Moncton turned to the private sector for help. Ron LeBlanc of the city's engineering department explained that working with the private sector was the only way the city could afford to construct a state-of-the-art system.[290] In 1998, after a competitive bidding process that initially saw expressions of interest from nine firms, the city signed an agreement with Greater Moncton Water, a company owned by USF Canada and the Hardman Group. The company offered considerable expertise: Parent USFilter, a subsidiary of the French water giant Vivendi, manages over 260 facilities in North America.[291] Moncton is delighted to gain access to the company's patented technologies, computerized systems, and resulting efficiencies. In the words of City Manager Al Strang, "We came up with a far superior deal than if we could have built it ourselves."[292]

Privatization brought immediate financial benefits to Moncton. The arrangement relieved the city of having to make any up-front capital investment. Equally important were the substantial cost savings. Greater Moncton Water built the plant for $23 million – between $8 million and $10 million less than a publicly designed and built plant would have cost. Those savings resulted in part from a 40 percent reduction in the size of the building, which was made possible by the choice of a particular kind of filtration. Operating costs will also be lower than they would have been at a publicly-run plant. All told, the city expects to save between $14 million and $17 million in capital and operating costs over the course of the 20-year lease; estimates of savings have ranged from $12 million to $20 million. The city will pass along these savings to consumers. The average household will pay $91 a year for the plant instead of the $119 anticipated under the public alternative. Mr. Strang expressed his pleasure with the deal, calling

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[286] Richard Foot, "Moncton shuts down as broken water pipe leaves city high and dry," *National Post*, July 15, 1999.

[287] City of Moncton, *Annual Water Quality Report*, 1998, pp. 3-6.

[288] James Forster, "Free water today," *Moncton Times and Transcript*, October 1, 1999.

[289] "City approves $23.1-M water treatment plant," *Moncton Times and Transcript*, April 7, 1998.

[290] Charles Perry, "Water woes should be over next year," *Moncton Times and Transcript*, October 28, 1998.

[291] City of Moncton, New Brunswick, and USFilter, "Canada's first major drinking water public-private partnership begins delivering water," Press Release, October 21, 1999.

[292] Christopher Guly, "Goderich water goes private," *Ottawa Citizen*, July 25, 2000.

both the city and the company "winners."[293]

Moncton's privatization also brought dramatic health benefits. In an editorial congratulating the city for its decision to proceed with a public-private partnership, the local newspaper enthused that residents "should be able to celebrate clean, clear, and contaminant-free drinking water for the first time in recent memory."[294] The contract requires the operator to meet or exceed Canadian drinking water guidelines. Its requirements for aluminum and colour are considerably stricter than the guidelines.[295] The contract also specifies turbidity levels of less than 0.1 nephelometric turbidity unit (NTU) at all times. This significant improvement over the average 1.87 NTUs recorded in 1998 will improve the taste and smell of the water and reduce chlorine requirements and subsequent trihalomethane formation.[296] Mr. LeBlanc boasted, "We believe the water that we have specified will be the best in Canada," adding, "If they don't meet the specs, then they ain't getting paid."[297] The new plant quickly lived up to its promise. After four months in operation, trihalomethanes had been reduced by almost 75 percent and chlorine consumption had been reduced by more than 70 percent.[298]

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[293] City of Moncton, New Brunswick, and USFilter, *op. cit.*; Al Strang, E-mail to Elizabeth Brubaker, May 9, 2000; L. E. Strang, letter to Ken Meech, Chief Administrative Officer for Halifax Regional Municipality, February 29, 2000; and USFilter, "Moncton, New Brunswick," *Statement of Qualifications*, September 2000.

[294] "Clean water is worth cost," *Moncton Times and Transcript*, March 18, 1998.

[295] James Forster, "Water treatment begins," *Moncton Times and Transcript*, October 21, 1999.

[296] City of Moncton, op. cit., pp. 4, 7.

[297] James Forster, "Water treatment begins," *Moncton Times and Transcript*, October 21, 1999.

[298] USFilter, "Moncton, New Brunswick," *Statement of Qualifications*, September 2000.

PRIVATIZATION: FACILITATING THE ENFORCEMENT OF LAWS AND REGULATIONS ENSURING SAFE DRINKING WATER

Most discussions of the benefits of privatization focus on capital investment, cost savings, and improved performance. An equally important – albeit it less often recognized – benefit of privatization is greater accountability. Privatization enables governments to more vigorously enforce compliance with laws and regulations.

In the months following the Walkerton disaster, inspections by the Ministry of the Environment revealed that more than half of Ontario's drinking water facilities failed to comply with provincial standards. Inspectors found deficiencies at 357 of the province's 645 municipal water treatment plants.[299] The most common problem was insufficient sampling, followed by inadequate maintenance of disinfection equipment, inadequate operator training or certification, and lack of compliance with minimum treatment guidelines. A number of newspaper articles linked the inspection results to staff and budget cuts at the environment ministry, deregulation, and the devolution of responsibilities from the province to municipalities.[300]

The facilities' blatant disregard of provincial rules, however, is nothing new and can hardly be blamed on recent changes to policy or spending. It points to a long-standing problem: Governments, paralysed by conflicting objectives and loyalties, have rarely forced publicly owned, publicly operated, or publicly financed water treatment plants to comply with provincial laws and standards.

The problem of municipal non-compliance has been in the public eye for well over a decade – at least since 1988, when the provincial auditor expressed concerns about the province's water and sewage systems. The auditor reported that the environment ministry failed to monitor plants to ensure compliance with legislation and policy. Although 163 environmental officers had the power to conduct inspections, take samples, and lay charges for non-compliance, they rarely did so. In fact, most plants had not been inspected in the preceding two years. The auditor also complained of the ministry's poor public reporting practices: Its reports on sewage facilities understated non-compliance, and its reports on drinking water facilities ignored compliance altogether.[301]

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[299] Ministry of the Environment, "Environment ministry completes inspection of 645 water treatment plants," News Release, December 21, 2000.

[300] Caroline Mallan, "Half of Ontario water plants flawed," *Toronto Star*, December 22, 2000; Martin Mittelstaedt, "Ontario's water-treatment facilities riddled with problems, inspectors find," *Globe and Mail*, December 22, 2000; and Mary Vallis, "Most water plants fail province's safety blitz," *National Post*, December 22, 2000.

[301] Office of the Provincial Auditor of Ontario, *1988 Annual Report*, pp. 80-5. Also see Ontario Ministry of Environment and Energy, *Provincial Sewage and Water Inspection Program: Summary Report*, October 1992, p. 3 and Appendix 2.

These deficiencies existed despite that fact that in 1985 the ministry had initiated the Drinking Water Surveillance Program, "which for the first time provided utilities and the public with up-to-date, detailed, and

In response to the auditor's concerns, the Ministry of Environment and Energy developed a Sewage and Water Inspection Program (SWIP). Because the ministry could not locate Certificates of Approval for half of the water plants, and because many of the Cs of A that it did find contained no conditions governing operation, monitoring, or reporting, it initially had difficulty assessing compliance. In the program's first two years, between April 1990 and March 1992, the ministry could say with confidence only that 22 per cent of the plants were in compliance with their Cs of A and permits to take water. Nor were most plants complying with provincial guidelines or objectives. Fewer than half complied with policies regarding surface water and groundwater. Fewer than half complied with the health related parameters found in the Ontario Drinking Water Objectives. (The ministry was unable to assess a quarter of the plants.) Just 60 per cent of the plants complied with the ministry's bacteriological sampling program.[302]

In its first report on the SWIP program, the ministry distinguished between legal and non-legal violations, with the former relating to Cs of A or permits to take water and the latter relating to policies, guidelines, or objectives. The ministry identified legal non-compliance at 18 per cent of the water plants and non-legal non-compliance at 61 percent of the plants. It identified a host of violations: problems with the maintenance and operation of equipment, inadequate sampling, monitoring, and reporting; a lack of training and manpower; inadequate treatment levels. It concluded that the province needed "a more structured approach to water supply regulations."[303]

The report also distinguished between minor and significant non-compliance. Significant non-compliance indicated "measurable adverse environmental impact or health hazards." Although the report found most non-complying facilities to be in minor non-compliance, it identified 151 water treatment plants as being significantly non-compliant.[304]

Meanwhile, consultants for the ministry were conducting a Water Plant Optimization Study. Between 1987 and 1993, they studied 44 water supply systems covering approximately 70 per cent of the provincial population served by piped water. They identified 32 performance-limiting factors at the plants. Most common were problems with flow measurement (identified at 61 per cent of the plants), chemical selection and application (at 55 per cent of the plants), turbidity monitoring (at 50 per cent of the plants), filter operation (at 45 percent of the plants), chemical mixing (at 41 per cent of the plants), control of chemical feeds and dosages (at 41 per cent of the plants), plant hydraulics (at 39 per cent of the plants), record keeping and data management (at 36 per cent of the plants), and process testing (at 32 per cent of the plants). Additional factors disproportionately limited the performance of the smaller systems studied. The smaller systems

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reliable data on drinking water quality." Ontario Ministry of Environment and Energy, *Water Plant Optimization Study: Compendium Report*, March 1995, p. 1.

[302] Ontario Ministry of Environment and Energy, *Provincial Sewage and Water Inspection, op. cit*., pp. 20-21.

[303] *Ibid*., pp. 30-1.

[304] *Ibid*., pp. 1, 26; and Ministry of Environment and Energy, *151 Water Supply Inspection Points Identified in the MOEE 90-92 SWIP Inspection Report as Having Significant Non-Compliance, with Current Status*, Sessional Paper No. 387, tabled November 17, 1994.

experienced problems with chlorine residual monitoring, alarm capability, start/stop operation, upflow clarifier operation, and plant flow control. Worsening matters, 55 per cent of the smaller plants had no operations manual. Although the consultants did not specifically address operators' skills or training, the 1995 report on the study identified operator expertise as "a major problem at many water plants." Many operators, it noted, "do not understand the fundamentals of water treatment in terms of chemistry and the unit processes. Consequently, they are unable to optimize plant operation and have difficulty adapting to changes in raw water quality."[305]

This series of reports indicating widespread problems at the province's water treatment plants prompted little tough action by provincial regulators. In his 1994 report, the provincial auditor again complained about the number of plants that were not sampling sufficiently, not conforming with minimum treatment guidelines, or not meeting water quality standards. He noted that the environment ministry continued to inadequately monitor hundreds of smaller plants. And he noted the ministry's failure to take action when it did uncover problems. The inspection files that he had examined indicated that problems had been outstanding for an average of 17 months. He warned, "We are concerned about the lack of timely follow-up action on problems identified by inspection staff."[306]

In response, the ministry made reassuring noises about new, proactive inspections units and improved follow-up. It vowed to continue working with plants to obtain conformance with provincial policies and guidelines.[307] In the following years, it did increase the number of plants inspected. But non-compliance persisted. By the end of 1997, the Drinking Water Surveillance Program covered 145 municipal water works, nearly a third of which had experienced compliance problems in the preceding four years. Between 1993 and 1997, the ministry documented 46 water supplies that exceeded the province's health-related drinking water objectives at least once.[308]

Why didn't provincial regulators compel non-complying plants to improve? The first SWIP report offered a variety of explanations. In the early 1980s, it suggested, the environment ministry had had other priorities. Once drinking water safety gained its attention, progress was slow, since it took from five to ten years to upgrade a plant. The report also noted that the ministry lacked effective tools to enforce standards at most facilities but that this should eventually change: Development of enforceable limits to ensure compliance should be completed by December 1996. In the mean time, the ministry assumed that better communication would solve many of the problems. Its approach was to advise operating authorities of their responsibility to satisfactorily manage their works. Once such advice had been dispensed, the

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[305] Ontario Ministry of Environment and Energy, *Water Plant Optimization*, *op. cit.*, pp. 1, 8-14.

[306] Office of the Provincial Auditor of Ontario, *1994 Annual Report*, p. 80.

[307] *Ibid.*, p. 81.

[308] Ontario Ministry of the Environment, *Drinking Water in Ontario: A Summary Report 1993-1997*, 2000, p. 12.

regulators anticipated, considerable reductions in minor infractions would follow.[309]

That the province consciously chose a cooperative rather than a confrontational approach to water supply was made clear by the Ministry of the Environment representatives whose testimony opened Part IB of the Walkerton Inquiry. The three current and former employees described the high levels of cooperation, dialogue, encouragement, and trust that characterized the relationship between the ministry and the municipalities.[310] Erv McIntyre, who worked for the province between 1960 and 1993 and held several senior positions in the environment ministry, including two in which he was responsible for ensuring compliance, evidenced a strong bias against prosecution in matters relating to a C of A. Despite its enforceable conditions, he claimed, a C of A was not absolutely critical; instead, it was a "facilitation tool."[311] Even in light of the events at Walkerton, he insisted, prosecuting an owner for not having a C of A would not serve a useful function. "What [was] a prosecution going to prove," he asked, and continued, "I don't view that taking anything to court makes water any safer."[312] Accordingly, prosecutions were extremely rare under his watch. The ministry worked with, rather than against, offenders. It "tried to help people, rather than take them to court."[313] In a later exchange, Mr. McIntyre confirmed his misgivings about prosecution, explaining that it "wasn't always the fastest answer" and that, in terms of deterrence, he was "not sure that it achieves a whole lot."[314]

Mr. McIntyre's testimony also contained hints as to why the ministry was so reluctant to prosecute municipalities. Municipalities, he explained, "were considered children of the Province."[315] The ministry also thought of municipalities as its clients.[316] Either way, he agreed, the relationship between the regulator and the regulated was "very close."[317]

This cozy relationship created conflicts of interest. Before making demands, Mr. McIntyre acknowledged, the ministry always had to take into consideration "the cost and the ability of the municipality to pay for the costs."[318] He neglected to mention that the province itself often bore the costs. Indeed, until 1993, grants from both the Ministry of the Environment and the Ministry

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[309] Ontario Ministry of Environment and Energy, *Provincial Sewage and Water Inspection, op. cit.*, pp. 1-3, 33-4, 36.

[310] Walkerton Inquiry, *Transcript*, March 6, 2001, p. 31, line 20 - p. 32, line 7; p. 71, line 16; p. 84, lines 19-24; p. 107, lines 1-5; p. 123, lines 6-8 and 14-17; March 7, 2001, p. 100, lines 19-25; p. 185, lines 14-17; p. 193, lines 23-5; and p. 208, line 3.

[311] Walkerton Inquiry, *Transcript*, March 6, 2001, p. 71, lines 19-22.

[312] *Ibid*., p. 72, line 12 - p. 73, line18.

[313] *Ibid*., p. 74, lines 8-19.

[314] Walkerton Inquiry, *Transcript*, March 7, 2001, p. 200, lines 18-19, and p. 225, lines 14-7.

[315] *Ibid*., p. 115, line 12-13.

[316] *Ibid*., p. 198, lines 12-15.

[317] *Ibid*., p. 196, lines 7-10.

[318] *Ibid*., p. 196, line 24 - p. 197, line 3.

of Northern Development meant that the province funded up to 92.5 per cent of the capital costs of water treatment facilities in some communities.[319] While the grant programs have changed over the years, the province continues to feel responsible for capital improvements in smaller municipalities. Yet provincial budgets are limited, locking the province into the conflict of interest that plagues any government that both funds and regulates a system.

Mr. McIntyre also failed to mention an even more important relationship: For many years, the province wasn't just close to the owners and operators of water plants – in many cases, it *was* the owner and operator. Until 1997, the province owned approximately 77 water treatment plants. Few would have expected impartiality from a regulator that was also an owner. The arrangement violated a fundamental rule of natural justice: the rule against bias. The Oxford Dictionary of Law elaborates on the principle that "no man may be a judge in his own cause," explaining that in any exercise of administrative authority, "any decision, however fair it may seem, is invalid if made by a person with any financial or other interest in the outcome or any known bias that might have affected his impartiality."[320] Certainly the province, as the owner of water plants, had an interest in the enforcement – or the lack thereof – of provincial rules. That interest very likely helps explain its strong bias against prosecuting violators in order to force compliance.

Norm Sterling, then Minister of Environment and Energy, described the conflicts presented by plant ownership to the Standing Committee on Resources Development when it held hearings into Bill 107, which transferred the ownership of 230 water and sewage plants from the province to municipalities. "Right now the province is in an ambiguous position, being the regulator, the owner, the operator and sometimes the funder of water and sewage services," he explained. "Confused ownership and fragmented administration are hindering the delivery of water and sewage services in Ontario." Divesting itself of ownership, he promised, "will help the provincial government focus on its real job ... and that is setting and enforcing tough performance standards for water and sewage treatment plants and ensuring that those standards are met."[321]

The following day, a surprising voice reiterated concerns about government conflicts, albeit from a very different perspective. Sid Ryan, president of the Canadian Union of Public Employees, Ontario, expressed misgivings about transferring ownership of water and sewage systems to municipalities in the absence of an independent public regulator. He warned of a "fox-in-the-henhouse scenario, where municipalities will monitor and enforce their own programs and services."[322] Of course, Mr. Ryan did not recommend privatization in order to avoid the conflict. Regardless, it is noteworthy that he acknowledged the perils involved when the fox guards the henhouse.

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[319] Office of the Provincial Auditor of Ontario, *1994 Annual Report,* p. 86.

[320] "Natural justice," *Dictionary of Law* (Oxford University Press, 1997).

[321] Ontario Standing Committee on Resources Development, *Hansard,* April 14, 1997, 1556.

[322] Ontario Standing Committee on Resources Development, *Hansard,* April 15, 1997, 1336.

Although the province did, with Bill 107, cease owning plants, it did not cease operating them. Through the Ontario Clean Water Agency (OCWA), a provincial crown corporation, it continues to operate 161 municipally owned water treatment plants – a responsibility held by the ministry itself until 1993.[323] Although the creation of OCWA has created some distance, the province remains reluctant to prosecute its own agency. It may likewise be reluctant to aggressively prosecute non-compliant municipalities, since doing so would set precedents that might then apply to OCWA.

In 1998, the province referred OCWA to the Office of Privatization with instructions to consider options – ranging from reorganization to full privatization – for the agency's future.[324] To date, no action appears to have been taken. The dismantling or sale of OCWA would further increase the distance between the operator and regulator, thus reducing potential conflicts. It would not, however, eliminate these conflicts as long as municipalities – those children of the province – continue to own their plants and the province continues to finance upgrades. Only full privatization and the cessation of all subsidies would effectively distance the regulator from the owner, operator, and funder.

Nonetheless, partial privatization – for example, the contracting out of operations and maintenance – does increase the chances of compliance. Enforceable contracts with specific performance criteria provide municipalities with powerful tools to compel compliance. Carefully drafted contracts are covenants that may guarantee water quality, maintenance levels, and capital expenditures. They may include financial guarantees and penalties for non-compliance. United Water points out that custom-tailored service agreements may thus provide municipal officials with greater control over their water and wastewater systems.[325] Contracts that assign to private firms full responsibility for capital improvements and offload to these firms at least some of the political costs of increasing water rates to finance such improvements also provide municipal officials with greater incentives – or, at least, fewer disincentives – to compel compliance.

That accountability inheres in privatization is well-recognized in the United States – so much so that some experts consider it the fundamental reason for privatizing services. In a 1996 staff report for the Joint Economic Committee of the US Congress, senior economist Jerry Ellig wrote, "Privatization is based on the principle that private ownership generates greater accountability than the political process."[326]

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[323] Prior to November 1993, the Ministry operated 113 water plants. By 1998, OCWA operated 123 water plants. Office of the Provincial Auditor of Ontario, *1994 Annual Report*, p. 78; and Office of Privatization, *Fact Sheet: The Ontario Clean Water Agency*, March 1998.

[324] Office of Privatization, *Information Sheet: The Ontario Clean Water Agency*, October 1998.

[325] United Water, *Frequently Asked Questions: Public-Private Partnerships in the Water and Wastewater Industry*, no date.

[326] Jerry Ellig, *The $7.7 Billion Mistake: Federal Barriers to State and Local Privatization*, Joint Economic Committee Staff Report, February 1996, p. 1.

The Reason Foundation has consistently stressed accountability as a primary benefit of privatization. Back in 1988, Reason president Robert Poole wrote, "Part of writing a good contract is to define measures of performance and allocate some city staff function to actually keeping track of what those performance levels are ... One of the surprising benefits of privatization has been that when a service is contracted out, it's often the first time that anyone has thought about quantitative performance measures."[327] Mr. Poole expanded on these ideas in a 1999 speech delivered to a Toronto audience, saying that the request-for-proposal process may lead to a more precise definition of what needs to be provided.[328] Privatization increases the accountability not only of service providers but also of governments. In clarifying objectives, partnerships help de-politicize governments' decisions about services. Bill Eggers, director of Reason's Privatization Center, has also noted the need to de-politicize: "You need to physically separate policy from service delivery. There are all sorts of conflicting objectives if you have the same agency doing regulation, providing services, and giving policy advice."[329]

A 1996 Reason Foundation policy study comparing investor-owned and government-owned water systems elaborated on privatization as an enforcement mechanism:

> [T]he historical record indicates that government-owned companies have been less likely to comply with environmental and health standards than the investor-owned sector in a whole range of policy areas. Government-owned water companies are more likely to use their political leverage to fight stringent standards on whatever service they provide. In addition, the regulating agency has a more difficult time forcing government-owned companies to adopt the costly policies necessary to meet their standards. While the government can tell investor-owned companies to cut their dividends or operate with less profit, government-owned companies often demand increased subsidization, and thus increased taxes, to support any improvements. Since it is politically unpopular to raise taxes, the politicians have been known to look the other way on enforcement issues.[330]

In a privatized system, the market itself provides a kind of enforcement that regulators are unable to provide. The consequences of non-compliance are fundamentally different in the public and private sectors. Azurix president and CEO John Stokes succinctly described the outcome of irresponsible behavior for a private firm: "If you are negligent, you are history."[331] The

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[327] Robert W. Poole, Jr., "The Limits of Privatization," in *Privatization: Tactics and Techniques*, Proceedings of an International Symposium, ed. Michael A. Walker (Vancouver: The Fraser Institute, 1988), p. 96.

[328] Robert W. Poole, Jr., Speech to The Canadian Council for Public-Private Partnerships, Toronto, May 18, 1999.

[329] Bill Eggers, "The Nuts and Bolts: Overcoming the Obstacles to Privatization," Speech published as part of the "Commonwealth Conversations" series by the Commonwealth Foundation for Public Policy Alternatives, April 1997, p. 7.

[330] Kathy Neal, Patrick J. Maloney, Jonas A. Marson, and Tamer E. Francis, *Restructuring America's Water Industry: Comparing Investor-Owned and Government-Owned Water Systems*, Policy Study No. 200 (Los Angeles: Reason Foundation, January 1996), p. 17.

[331] John Stokes, meeting with Elizabeth Brubaker and Mark Hudson, February 9, 2001.

environment ministry's Mr. McIntyre confirmed this under cross-examination at the Walkerton Inquiry. Private-sector suppliers, he said, "couldn't stay ... in the business of providing water if they were providing unsafe water. If you were a customer, would you buy their water from them, if they were providing unsafe water?" If the owners of private water works made a mistake, he repeated, "they'd be put out of business."[332] That punishment does not threaten municipal or provincial service providers.

[332] Walkerton Inquiry, *Transcript*, March 7, 2001, p. 214, lines 11-21.

PRIVATIZATION: FACILITATING THE ENFORCEMENT OF LAWS AND REGULATIONS LIMITING SEWAGE POLLUTION

In their examination-in-chief launching Part 1B of the Walkerton Inquiry, Jim Jackson and William Gregson suggested that the Ontario government's cooperative approach to enforcement was unique to water works. Sewage works, these representatives of the Ministry of Environment repeatedly said, did not enjoy the same status. Mr. Jackson traced the distinction to 1884, when the *Public Health Act* established stricter rules for the construction of sewers than for water works. "The legislature apparently expected people to do the right thing with respect to water works," he explained. "Pollution emitting things," however, "were treated differently."[333] For sewers, a violation of provincial rules was an offence. Mr. Gregson maintained that a similar distinction existed in the 1960s, 1970s and early 1980s. He contrasted the "high levels of cooperation [and] mutual agreement" characterizing matters relating to drinking water with the "adversarial relationship" characterizing approvals relating to contaminant discharges.[334]

Although the province may have been less forgiving of industrial polluters, in reality, the relationship between the province and municipal sewage dischargers has been far from adversarial. Unchecked sewage pollution has plagued Ontario for more than a century. Although laws have long been in place to prevent such pollution, they have rarely been enforced. Indeed, the problem of provincial governments refusing to enforce their own clean-water laws dates as far back as the laws themselves.

The draft study prepared by Jamie Benidickson for Part 2 of the Walkerton Inquiry provides an excellent overview not only of the province's broad powers to prevent municipalities from polluting but also of its reluctance to exercise them.[335] As early as 1882, the province established the Provincial Board of Health to, among other things, advise municipalities on sewage disposal. By 1895, the board had acquired authority to "impose any conditions with regard to the construction of such sewer or system of sewerage or the disposal of sewage therefrom as it may deem necessary or advisable in the public interest." Amendments to the *Public Health Act* in 1906 forbade the discharge of sewage into waters that were the source of public water supplies and provided for fines against violators. Further amendments in 1912 broadened the prohibition against sewage pollution: "No garbage, excreta, manure, vegetable or animal matter or filth shall be discharged into or be deposited in any of the lakes, rivers, streams or other waters in Ontario." After the Department of Health was created in 1923, it assumed responsibility for prohibiting sewage pollution. Not until 1957, when the Ontario Water Resources Commission assumed many of its responsibilities, did the health department lose its power to issue mandatory orders to

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[333] Walkerton Inquiry, *Transcript*, March 6, 2001, p. 123, lines 4-13.

[334] *Ibid*., p. 84, lines 17-24. Also see *Transcripts*, March 6, p. 32, lines 5-8; March 6, p. 113, lines 5-8; and March 7, 2001, p. 208, lines 3-8.

[335] Jamie Benidickson, *The Development of Water Supply and Sewage Infrastructure in Ontario, 1880-1990s: Legal and Institutional Aspects of Public Health and Environmental History*, Background paper for the Walkerton Inquiry, Draft, February 2001 pp. 4-10.

establish or improve sewage treatment plants.

Despite the province's clear authority over municipal discharges, sewage pollution was commonplace. Mr. Benidickson paints a grim picture.[336] In the first decades of the 20th century, the widespread construction of sewers without treatment facilities greatly increased municipal pollution. In 1916, 60 of the province's 95 sewer systems discharged untreated sewage into surface waters – in obvious violation of the Public Health Act. Although many communities built sewage treatment facilities in the following decades, much collected sewage remained untreated. By 1936, of the 134 municipalities with sewer systems, only 72 had treatment facilities; 62 discharged their sewage untreated. Sewage pollution was by no means unremarked upon by regulators. As early as the turn of the century, the Provincial Board of Health noted the contamination of many lakeshore communities. Nor were its adverse effects unknown. In 1914, the International Joint Commission attributed the high rates of typhoid fever around the Great Lakes to untreated sewage. Regardless, Mr. Benidickson could find no examples from the century's first decades of provincial regulators exercising their authority to impose specific measures on unwilling local governments.

The issue gained political prominence in the 1950s. The *Globe and Mail* accused Toronto, its suburbs, York Township, and Georgetown of dumping raw sewage into Lake Ontario and the Don, Humber and Credit rivers with impunity, despite provincial laws "theoretically prohibiting pollution."[337] The Conservation Council of Ontario complained in a letter to candidates in a provincial election that the government had "virtually ignored the greatly aggravated problem of waste disposal."[338] The government's awareness that many municipalities used their rivers as sewers is clear from the legislative debates of the time. One MPP described the Grand River as "nothing more or less than an open sewer."[339] Another noted that Ottawa had no sewage disposal plant.[340] There were several references to Toronto's pollution having become the subject of international protests.[341] The Attorney General estimated that, in all, 65 Ontario municipalities were polluting local waters with sewage.[342]

Yet the government continued to refuse to exercise its power to prevent pollution. When the Department of Health did issue clean-up orders, municipalities simply ignored them, confident that they would not be enforced. The Premier acknowledged in 1956 that his government's

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[336] Benidickson, *op. cit*., pp. 16, 20, 22, 30, 38.

[337] "Pollution – a Threat to Health," *Globe and Mail*, July 15, 1952.

[338] Benidickson, *op. cit*. p. 70.

[339] G. T. Gordon, *Legislature of Ontario Debates, Official Report – Daily Edition*, February 28, 1956, p. 578.

[340] T. D. Thomas, *Legislature of Ontario Debates, Official Report – Daily Edition*, February 11, 1957, p. 271.

[341] L. Frost, *Legislature of Ontario Debates, Official Report – Daily Edition*, February 11, 1957, pp. 263-4. Also see L. Frost, *Legislature of Ontario Debates, Official Report – Daily Edition*, February 28, 1956, p. 558.

[342] A. K. Roberts, *Legislature of Ontario Debates, Official Report – Daily Edition*, March 27, 1956, p. 1578.

orders had been "more disregarded than they have been observed."[343] The following year, the Minister of Health could recall only one time that the government had pursued a mandatory clean-up order under the *Public Health Act*; even that had ended in failure. "As far as I know," he admitted, "in the annals of our history, there was one order where the court order was carried out and they were fined $100 a day, some 20 or 30 years ago; that is the top fine. It mounted up to $75,000 or so, and the government of the day forgave them or whatever one likes to call it."[344]

The government didn't just protect municipal sewage polluters from its own statutes. Starting in 1956, in response to two court cases, it also shielded them from full liability under tort law. In both cases, the courts had issued injunctions forbidding municipalities from dumping raw sewage into local rivers.[345] In amendments to the *Public Health Act*, the government dissolved the injunctions and then extended protection to other polluting communities by deeming all sewage projects approved by the Department of Health to be operated by statutory authority, immunizing them from the threat of future injunctions.[346] The *Globe and Mail* called the new law "arbitrary" and "evil" and charged it with making it "a positive policy of the Ontario government to permit the pollution of streams, contrary to the public interest." It warned that "no denial of common law remedies can be considered as a remedy for laws which can be either evaded or ignored."[347]

Why did the government go to such lengths to protect polluting sewage plants? The legislative debates suggested that the government was determined to protect its purse. It feared that forcing municipalities to clean up would set an expensive precedent. It expected sewage works projects to cost $1.3 billion over 20 years. Since many municipalities lacked the capital or the credit to borrow money to pay for necessary repairs, it understood that it would likely have to foot the bill for any upgrades required, despite its own tight financial situation.[348] The government was thus in a financial conflict of interest. The cross examination at the Walkerton Inquiry of government lawyer Jim Jackson suggested that the province was also in an operational conflict of interest. "At the time that was passed," Mr. Jackson explained, "the province was embarking on a program of constructing sewage works pursuant to contracts with municipalities throughout the province, so that had the effect of protecting the province, the Ontario Water Resources Commission (OWRC), from lawsuits with respect to sewage works that were being operated with their approvals and the orders." Granting statutory protection to sewage works, he

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[343] L. Frost, *Legislature of Ontario Debates, Official Report – Daily Edition*, February 28, 1956, p. 562.

[344] M. Phillips, *Legislature of Ontario Debates, Official Report – Daily Edition*, February 11, 1957, p. 263.

[345] *Burgess v. The City of Woodstock*, [1955] O.R. 814; and *Stephens v. The Village of Richmond Hill*, [1955] O.R. 806, aff'd [1956] O.R. 88.

[346] These protections still exist: They now reside in Section 59 of the *Ontario Water Resources Act*. As long as the works are in compliance with the *Ontario Water Resources Act* and the *Environmental Protection Act*, they are deemed to be operated by statutory authority. For a detailed discussion, see Elizabeth Brubaker, *Property Rights in the Defence of Nature* (London: Earthscan, 1995), pp. 83-92.

[347] "A Bad, Arbitrary Law," *Globe and Mail*, April 2, 1956.

[348] L. Frost, *Legislature of Ontario Debates, Official Report – Daily Edition*, February 28, 1956, pp. 558, 561, 562.

continued, would make it "very difficult to undertake a successful action."[349]

Soon after protecting polluting sewage plants from tort law, the province made it still easier to protect them from statutory requirements. It gave OWRC extensive administrative and judicial powers over water supply and sewage treatment. Not only would OWRC construct and operate water and sewage works but it would also enjoy broad powers to use, control, and regulate water. In his report for the Royal Commission Inquiry Into Civil Rights, Commissioner James McRuer called OWRC's power to use the waters of any lake or river as may be deemed necessary for its purposes "an arbitrary power of confiscation of the rights of riparian owners." The absence of safeguards or rights to compensation were, he wrote, "unconscionable." The Commissioner objected to OWRC's wide powers to permit pollution by itself or others. After noting that sewage discharges approved by the OWRC would not contravene legislation making pollution an offence leading to a fine or imprisonment, he stated, "It is difficult to understand why any approving authority should have power to grant an approval of a discharge ... 'which may impair the quality of the water' so as to escape the penalties provided by the Act." More generally, the Commissioner questioned the appropriateness of granting administrative and judicial powers to a body engaged in the business of providing water and sewage services, suggesting that a conflict of interest could arise in the exercise of the different functions.[350]

Commissioner McRuer was right to worry. Conflicts of interest did afflict OWRC. Although OWRC no longer exists, similar conflicts continue to bind the province to this day. And to this day, sewage pollution continues to foul Ontario's lakes and rivers.

In 1998, the last year for which figures are available, 56 municipal sewage facilities violated water quality standards: 43 failed to comply with their Certificates of Approval, and another 13 did not conform with provincial policies or guidelines. A total of 204 violations occurred at these facilities over the course of the year. Many of the non-compliant municipalities were repeat offenders: 45 per cent had also appeared on the 1997 list, and 63 per cent had offended at least once during the previous six years. Walkerton's sewage facility had appeared on the non-compliance lists for five years running. A number of the chronically offending municipalities had problems dating back a decade. Moosonee's annual violations dated back to 1989. Waterloo had violated water quality standards in 1987, 1988, and 1989, and then again each year between 1992 and 1998.[351]

Sadly, 1998's dismal figures look better than some of their predecessors. The many environmentalists who blame water pollution on Mike Harris's budget cuts have apparently forgotten that previous governments tolerated even greater numbers of municipal polluters. In

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[349] Walkerton Inquiry, *Transcript*, March 7, 2001, p. 118, line 23 - p. 119, line 12.

[350] Honourable James McRuer, *Royal Commission Inquiry Into Civil Rights: Report No. 3*, Volume 5, February 22, 1971, pp. 2106-7, 2109, 2112-13.

[351] Ontario Ministry of the Environment, *1998 Waste Water Discharges Summary*, pp. 27-41; and Sierra Legal Defence Fund, *Who's Watching Our Waters?*, May 2000, pp. 21-89.

1986, under the watch of David Peterson's Liberal government, 151 municipal facilities exceeded provincial guidelines.[352] By 1990, when Bob Rae's NDP government took over, 93 facilities exceeded provincial guidelines and 13 exceeded limits established in their Certificates of Approval. The decline reflected improvements only in removing phosphorus from sewage effluent; the environment ministry admitted that the preceding four years had brought no improvements in BOD or suspended solids removals.[353] Although the following years saw some progress, the number of non-compliant facilities remained high: 91 in 1991, 83 in 1992, 73 in 1993, and 75 in 1994, the NDP's last full year in office.[354]

Despite the persistent problems, governments of all stripes have steadfastly resisted prosecuting non-compliant facilities. Information on enforcement, albeit spotty, is discouraging. In 1989, when 110 facilities exceeded provincial limits, the Liberal government brought only two enforcement actions.[355] One municipality pleaded guilty and paid a paltry $2,500 fine. The other action went to court in 1990; the defendant was fined $5,000 in 1992.[356] In 1991, when 91 facilities were out of compliance, the NDP government investigated just two suspected infractions; it laid no charges. In 1996, although the Conservative government recorded violations of water pollution limits at 52 municipal sewage facilities, it prosecuted only one: the Russell Waste Stabilization Pond. The operators made a voluntary conservation donation of $6,000 to supplement their $2,000 fine.[357]

The absence of enforcement is bound to have had a pernicious effect. Municipalities certainly would have noticed the province's reluctance to enforce limits set out in Certificates of

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[352] Ontario Ministry of the Environment, *Report on the 1989 Discharges from Municipal STPs in Ontario*, June 1991, p. 31.

[353] Ontario Ministry of Environment and Energy, *Report on the 1991 Discharges from Municipal Sewage Treatment Plants in Ontario*, Volume 1, September 1993, pp. 25, 26, 28.

[354] Ontario Ministry of Environment and Energy, *Report on the 1991 Discharges*, *op. cit*., p. v; Ontario Ministry of Environment and Energy, *Non-Compliance Report / 1992*, undated; Ontario Ministry of Environment and Energy, *1993 Waste Water Discharges Report*, March 1995; Ontario Ministry of Environment and Energy, *1994 Waste Water Discharges Report*, December 1996.

The report summarizing the first two years of the Sewage and Water Inspection Program tells a slightly different but equally discouraging story for the period between April 1990 and March 1992. Because of assessment difficulties, the ministry could be confident only that 34 per cent of the province's water plants were in compliance with their Certificates of Approval. It identified widespread non-compliance with ministry policies and guidelines: 42 per cent of the plants failed to comply with policies governing effluent limits, sampling and monitoring, and plant design and maintenance. Ontario Ministry of Environment and Energy, *Provincial Sewage and Water Inspection Program: Summary Report April 90 - March 92*, October 1992, pp. 16, 29.

[355] Ontario Ministry of the Environment, *Report on the 1989 Discharges*, *op. cit*., p. 29.

[356] Ontario Ministry of Environment and Energy, *Report on the 1991 Discharges*, *op. cit*., p. v; and Suzan Deeder, Telephone conversation with Lisa Peryman, April 2001.

[357] Martin Mittelstaedt, "Water polluters escaping prosecution," *Globe and Mail*, March 1, 1999; and Sierra Legal Defence Fund, "Polluters in Your Region!" Press release, March 1, 1999.

The province's discharge report puts the number of non-complying plants at 50. Ontario Ministry of the Environment, *1996 Waste Water Discharges Summary*, undated.

Approval, policies, and guidelines. They may well have perceived such limits as non-binding and have lost their fear of sanction. Should we be surprised if they became lazy or sloppy?

A report prepared for the Ministry of Environment and Environment Canada in 1992 suggested exactly that. The report examined 19 sewage treatment plants in order to identify the principal factors contributing to poor performance. Although some of the factors involved inadequate infrastructure, many simply reflected bad management and training. Among the latter were a general lack of understanding of the fundamentals of sewage treatment processes, policies of plant administration, lack of support provided to plant operational staff, inadequate process monitoring, and inadequate manuals detailing operations and maintenance. The authors concluded that modifications to operating strategies and minor physical plant changes would improve performance at 83 per cent of the plants. But they didn't sound optimistic about that happening, given the absence of enforcement:

> Generally, the sewage treatment facility is the least visible component of the infrastructure for which the municipality is responsible. Hence, it generally receives a lower priority in terms of financial and other support than more visible elements ... The emphasis is often placed on controlling the costs of the plant operation rather than on improving performance. There is little incentive through regulatory enforcement programs for municipalities to optimize the performance of the STP, and, in most cases, little disincentive to continue to operate in a non-complying mode.[358]

"Increased enforcement activities," the authors advised, would "provide an incentive to optimize performance." Indeed, they emphasized in bold type, this factor "must be addressed before long-term improvements can be made at STPs with performance problems."[359]

The study's authors were not alone in telling the government that it had to get serious about enforcement. One of the loudest and most constant voices came from the office of the provincial auditor. The 1992 auditor's report called discharges from municipal sewage systems "the most serious pollution control issue" and warned, "Given that pollution from sewage treatment plants is believed to be the single largest source of water pollution, progress in reducing or eliminating their toxic effluents is vital to achieving the Ministry's water quality objectives."[360] Two years later, in reviewing the 1991 discharge report, the auditor noted that although approximately half of the non-compliant plants had been out of compliance between three and five years, no control orders had been issued. He recommended that "the Ministry should strengthen its enforcement efforts, including the issuance of control orders, to ensure that treatment plants with compliance

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[358] XZG Consultants Ltd., *Assessment of Factors Affecting the Performance of Ontario Sewage Treatment Facilities*, Technical Report prepared for the Ontario Ministry of Environment and Environment Canada in cooperation with the Municipal Engineers Association, November 1992, p. 83.

[359] XZG Consultants Ltd., *op. cit*., p. iii.

[360] Office of the Provincial Auditor of Ontario, *1992 Annual Report*, pp. 59, 65.

problems take timely corrective actions."[361] Last year, the auditor renewed his call for better enforcement, albeit not specifically in the context of municipal sewage polluters. He complained that "the Ministry did not have satisfactory systems and procedures in place to ... enforce compliance with environmental legislation" and that it "relied extensively on facility operators to comply voluntarily rather than impose stringent enforcement measures, such as issuing control orders or laying charges. This was of particular concern as one third of the violators were repeat offenders."[362] He repeated his by now familiar recommendation: "For environmental legislation to be effective, the Ministry needs to be taking enforcement action in an aggressive, appropriate and timely manner when violations are identified, particularly repeat violations. Our audit concluded that more stringent enforcement is required."[363]

Neither the auditor nor other critics have often explored the reasons behind the lax enforcement. The environment ministry has occasionally offered excuses. Reports in the early 1990s mentioned that plant modifications and expansions would take time – in some cases, as long as five or ten years.[364] Even more daunting than time was money. The Deputy Minister of the Environment responded to the 1992 auditor's report with the following explanation: "The large expenditures required for upgrading sewage treatment plants have been the primary reason for delays."[365] The province understood that it would bear many of those expenditures. As was true of water treatment works, it funded up to 92.5 per cent of the total capital costs of sewage facilities in some communities.[366] Tight provincial budgets would inevitably have put the province into the kind of conflict that kept it from prosecuting non-compliant water works.

The same conflict exists elsewhere in the country. To provide but one example, Columnist Les Leyne contrasted the presence of many municipalities on British Columbia's list of worst polluters with their absence from the province's list of charges and convictions. "There is nary a single town or regional district on the entire docket," he wrote. "The reason for this is simple. The provincial government finds it difficult to slap pollution charges against mayors and councillors because sewage treatment is a cost-shared responsibility."[367]

With sewage, as with water treatment, Ontario's financial conflict is exacerbated by an operational conflict. The Ontario Clean Water Agency (OCWA) operates 233 municipal sewage

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[361] Office of the Provincial Auditor of Ontario, *1994 Annual Report*, pp. 81-2.

[362] Office of the Provincial Auditor of Ontario, *Special Report on Accountability and Value for Money*, November 21, 2000, p. 111.

[363] Office of the Provincial Auditor of Ontario, *Special Report on Accountability*, *op. cit*., p. 120.

[364] Ontario Ministry of the Environment, *Report on the 1989 Discharges*, *op. cit*., p. 27; Ontario Ministry of Environment and Energy, *Report on the 1991 Discharges*, *op. cit*., p. 17; and Ontario Ministry of Environment and Energy, *Provincial Sewage and Water Inspection*, *op. cit*., p. 1.

[365] Office of the Provincial Auditor of Ontario, *1992 Annual Report*, p. 71.

[366] Office of the Provincial Auditor of Ontario, *1994 Annual Report*, p. 86.

[367] Les Leyne, "Worst offenders get off easiest on polluters' list," *Victoria Times Colonist*, October 1, 1997.

systems, many of which have appeared on non-compliance lists over the years. If the province were to prosecute the violators, it would be prosecuting its own crown corporation – a predictably rare scenario. This conflict was even more pronounced in the early 1990s. Prior to November 1993, when it transferred responsibilities to OCWA, the Ministry of the Environment itself operated 233 sewage facilities, 153 of which were owned by the provincial government.[368] In 1997, the province transferred ownership of its plants to municipalities, but OCWA continued to operate facilities.

Provincially owned and operated plants have been notorious for their poor performance. In 1991, seven of the 10 worst performing sewage treatment plants were operated by the Ministry of the Environment. Nineteen of the 40 plants that had been out of compliance with provincial guidelines for three or more consecutive years were operated by the ministry. Fifty-three of the 97 plants that were either non-compliant with guidelines or provided insufficient data for assessment were operated by the ministry.[369] Protecting these provincial plants was one of the reasons behind the province's reluctance to prosecute even municipally owned and operated plants. In the early 1990s, a former government prosecutor complained that his bosses forbade him from going after municipal sewage polluters, since doing so would set precedents that might then apply to provincial plants.

In 1995, environmental lawyer Dianne Saxe described the difficulty of prosecuting non-compliant ministry-operated water and sewage facilities:

> Despite repeated complaints by the provincial auditor, and aggressive prosecution of similar facilities, no enforcement action was ever taken against these provincial plants or their employees. Why? The answer is simple. Until recently, these plants were operated by the ministry itself. The MOEE had more than enough labour relations problems with its plant staff ... and capital improvements were limited by tight budgets. Senior management knew that prosecuting plants would only make their own jobs harder.[370]

Ms. Saxe's analysis, albeit unusual in Ontario, would be considered common sense in other jurisdictions. In a study for the Reason Foundation, Holly June Stiefel described the conflicts posed by the dual federal role of funder and regulator of sewage treatment plants in the United States. When the federal government took responsibility for water pollution control in 1972, it established a grant program to help municipalities meet the new country-wide discharge limits. The absence of a federal grant soon excused non-compliance. Ms. Stiefel argued for the cessation of federal support and the privatization of municipal sewage treatment plants to promote compliance. Private firms "realize that lack of funding will not be an acceptable excuse

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[368] Office of the Provincial Auditor of Ontario, *1994 Annual Report*, p. 78.

[369] Ontario Ministry of Environment and Energy, *Report on the 1991 Discharges*, *op. cit.*, pp. 67-73.

[370] Dianne Saxe, "Sauce for the Goose, Sauce for the Gander," *Hazardous Materials Management*, October/November 1995, p. 94.

for noncompliance."[371] With privatization, compliance shifts from the political arena to the contractual arena. Well drafted contracts clearly define and assign responsibilities. Of course, as Ms. Stiefel had noted in an earlier paper, "responsibility without accountability is useless."[372] Accountability is inherent in an enforceable contract. A contract's provisions for fines, termination, or other penalties in case of non-compliance create accountability. In her Reason study, Ms. Stiefel also pointed out that the periodic competitive rebidding of contracts creates incentives for operators not only to meet standards but to exceed them. Otherwise, they might lose out to more effective competitors. "Unlike municipal operation," she noted, "contract service is not a monopoly. Competition from other contract firms serves as a constant incentive to improve performance."[373]

Regulators' reluctance to sanction municipalities is by no means a strictly North American problem. The Organisation for Economic Co-operation and Development noted in 1997 that a similar problem exists in France. The country's extensive array of laws forbidding pollution are rarely enforced against municipalities; "genuinely dissuasive sanctions are seldom used."[374] The OECD attributed local problems to a lack of both funding and political will. In fact, the two are linked, given the public ownership of all sewage facilities in France and their wide-spread reliance on public subsidies. In a report to the United Nations, Jihad Elnaboulsi, an economist with the French government, acknowledged the potential problems inherent in public ownership, noting that municipalities that both own and operate their treatment systems run "the risk of a potential conflict of interest."[375] He noted that a 1995 law tried to remedy the problem of municipal pollution with provisions for the prosecution of local executives and mayors. However, once the government saw how effective the law could be – several mayors were prosecuted for sewage pollution – it backtracked and passed legislation limiting officials' criminal responsibility for harm wrought by their non-negligent actions. The Minister of the Interior assured a gathering of high-ranking civil servants that the new law was immediately applied to cases in progress and made it possible to exonerate some of their colleagues.[376]

In England and Wales, the conflict of interest between utility and regulatory functions was one of the reasons for the privatization of water and wastewater utilities. This conflict was debated in England and Wales in the early 1970s on the occasion of the creation of 10 regional public water

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[371] Holly June Stiefel, *Municipal Wastewater Treatment: Privatization and Compliance*, Policy Study No. 175 (Los Angeles: Reason Foundation, February 1994), pp. 1-2, 9, 25.

[372] Holly June Stiefel, *Privatization of Municipal Wastewater Treatment Plants: Effect on Responsibility and Compliance*, Masters Thesis, Penn State Environmental Pollution Control Program, May 1992, p. 47.

[373] Holly June Stiefel, *Municipal Wastewater Treatment*, *op. cit.*, p. 21.

[374] Organisation for Economic Co-operation and Development, *Environmental Performance Reviews: France* (Paris: OECD, 1997), p. 156.

[375] Jihad Elnaboulsi, *Organization, Management and Privatization in the French Water Industry*, Report to the United Nations, ECLAC, 1998, p. 14.

[376] Jean-Pierre Chevenement, Speech to Assemblée générale de l'association du corps préfectoral et des hauts fonctionnaires, November 1997.

authorities that would be responsible not only for treating sewage but also for regulating sewage pollution. Critics warned that expecting one body to act as both utility and regulator was as unwise as asking one person to act as both poacher and gamekeeper. The issue re-surfaced in 1987 with the following comments by the Secretary of State for the Environment: "In our consideration of the future for the water industry, we have been increasingly concerned by the role of the water authorities as both poachers and gamekeepers in this field. They are responsible for controlling discharges from industry and agriculture; but they are responsible for sewage treatment, and are major dischargers in their own right." The proposed solution? To privatize the utility functions, and to establish an independent authority to regulate the discharges.[377] David Kinnersley, who served first as a chief executive for a water authority and later as a board member of the new regulatory agency, identified the separation of the operator from the regulator as the "most significant gain" of the British water privatization. He praised the new "clarity of purpose in the different agencies," saying, "This could be a framework in which water utility privatization comes to be seen as sustainable."[378]

Indeed, in England and Wales, privatization greatly enhanced the enforcement of environmental laws. As the chairman of the environmental regulatory agency that was established upon privatization noted, Britain's old pollution permit system had been "designed with a view to avoiding an embarrassing number of failures and an excessive number of prosecutions of public organisations."[379] Accordingly, prosecutions were rare. The 1989 privatization changed that. Under the new system, prosecutions for environmental offences became the norm. By 1996, there had been 250 successful prosecutions of water and sewage companies.[380] The numbers of prosecutions increased even as environmental compliance improved. Nor does the trend show signs of letting up. In 1999, the Environment Agency prosecuted Thames Water on eight separate occasions; it took Anglian Water and Southern Water to court six times, Dwr Cymru four times, and Northumbrian Water three times.[381] Although the fines resulting from these prosecutions have often been low, considerable progress has been made.

Ontario's experience is still too limited to determine whether privatization has increased the likelihood that sewage pollution will be punished. Improved enforcement in Hamilton provides reason for optimism. Hamilton contracted out operations and maintenance of its sewage treatment facilities in 1995. Before privatization, Hamilton had a long history of violations. Its Waterdown plant appeared on the 1987 non-compliance list, and its Woodward Avenue plant appeared on the lists for 1987, 1988, and 1991. The city's most frequent offender was the Dundas plant, which appeared on the lists for 1987, 1992, 1993, and 1994. The province was

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[377] David Kinnersley, *Coming Clean: The Politics of Water and the Environment* (London: Penguin Books, 1994), pp. 47, 53; and Rt. Hon. Nicholas Ridley, Speech, May 22, 1987, Reprinted by the National Rivers Authority, *The Government's Proposals for a Public Regulatory Body in a Privatised Water Industry*, December 1997, p. 41.

[378] Kinnersley, *op. cit*. p. 204.

[379] Lord Crickhowell, *House of Lords Hansard*, April 17, 1989, col. 579.

[380] David Wallen, "Profiteering claims mark British privatization," *Globe and Mail*, October 17, 1996.

[381] Environment Agency, "Environmental Gains Marred by Pollution Failures," Press Release, July 26, 2000.

remarkably patient with the city. In 1993, it noted that it was negotiating a voluntary abatement plan to achieve compliance at the Dundas plant. It repeated that remark in 1994. The plant's reappearance on the non-compliance lists for 1995, 1996, and 1998 testify to the ineffectiveness of the voluntary plan. For a number of reasons discussed elsewhere in this paper, privatization was no panacea for Hamilton. It did not increase Hamilton's concern about its ongoing pollution. Nor did it light a fire under the Ministry of Environment. But one thing did change: Once a private firm assumed responsibility for operations, the International Union of Operating Engineers became a remarkably effective watchdog, relentlessly pressuring the ministry to enforce environmental laws. Representatives wrote numerous letters notifying the ministry of violations, made speeches, and talked to the media. After privatization, poor enforcement – long ignored by the union, the press, and the public – became an important issue. Private pollution was apparently less tolerable than public pollution. Finally, the ministry acted: Between June 2000 and January 2001, it laid 14 charges in connection with violations at the Woodward Avenue, Dundas, and Waterdown facilities in 1998 and 1999.[382]

Of course, privatization alone is not sufficient to ensure enforcement. The provincial government has a long history of coddling private polluters. Other measures are required to inform citizens and to empower them to act when the government drags its feet. The public must have ready access to information about sewage pollution. (The Hamilton union's access to detailed information helped make it an effective watchdog.) Those adversely affected by sewage pollution must once again be empowered to take court action when the government fails to protect their lakes and rivers. As we learned in the 1950s, citizens with strong property rights will use them to curb pollution. In fact, as the *Globe and Mail* so rightly pointed out at the time, "Only where aroused citizens have taken action to enforce the pollution laws has there been a determined effort to stop this practice."[383] To restore citizens' rights to sue those that harm them, the government must repeal section 59 of the *Ontario Water Resources Act*, which deems facilities complying with that act and with the *Environmental Protection Act* to be operated by statutory authority, thus shielding them from challenges under tort law. Furthermore, the government must specify in all acts, regulations, and permits regarding sewage collection, treatment, and disposal that its approvals confer neither authority to create nuisances nor protection against tort challenges.

Thus privatization is just one factor in better enforcement. But it is an important factor. The further we go in separating the ownership, operation, and financing of utilities from their regulation, the more we will reduce the conflicts that now paralyse our regulators.

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[382] Terry O'Neill, Telephone conversation with Elizabeth Brubaker, January 26, 2001. Thirteen of the charges are described in Eric McGuinness, "Sewage plant firm charged," *Hamilton Spectator*, January 16, 2001.

[383] "Pollution – a Threat to Health," *Globe and Mail*, July 15, 1952.

CONCLUSION

Experience with different forms of privatization in the United States, England and Wales, and Canada demonstrates that privatization – regardless of the form – is the cheapest and most effective way to solve a wide variety of problems plaguing water and wastewater utilities. Privatization has brought investment in infrastructure. It has made available greater expertise. It has encouraged innovation. It has promoted efficiency, in part by facilitating reductions in unnecessarily large workforces. It has reduced the conflicts-of-interest that prevent governments from enforcing laws and regulations. As a result of all of these factors, it has improved performance and brought greater compliance with health and environmental standards.

Each form of water and wastewater utility privatization has its own advantages. Because the various forms that privatization can take are still relatively new to most of the world, no single model has yet proven superior to others. Privatizing through asset sales has promoted the most capital investment. It has also created the greatest accountability, in part because it has unambiguously assigned responsibilities and in part because it has created the greatest distance between owners and government regulators. On the other hand, privatizing via competition for contracts has brought the greatest savings, with the additional advantage that these savings have been internally generated rather than externally imposed by a regulator. Long-term contracts have provided more opportunities for capital investment than their short-term counterparts and have generally assigned more responsibility to private operators.

Ontario's municipalities will benefit from either asset sales or long-term contracts. Municipalities will have to examine their own needs, assess their privatization options, compare the gains from privatization to the status quo, and choose the model that will work best for them.