BRING BACK OUR BEACHES

Britain did. We should take the plunge, too

BY ELIZABETH BRUBAKER

"When future generations see this splendid development and enjoy its privileges, they must declare that the men who conceived it had vision," Toronto Mayor Alfred Maguire predicted upon opening Sunnyside Beach and Pavilion on June 28, 1922.

His pride was well founded. The new city beach offered lifeguards, swimming instructors, water slides, diving platforms, swimming and diving competitions, and, for evening swimmers, floodlit sands and waters. Sterilized bathing suits
catered to the large numbers who, after sweltering in the afternoon sun, headed for the shore, storing their clothes in one of the pavilion’s 7,700 lockers. After the swim, they could rent beach chairs or return to the pavilion for a hot shower. Visitors preferring to be on Rew, rather than in, the water could hire canoes and other boats. For landlubbers, Sunnyside offered daily afternoon and evening concerts, dances, softball games, and an amusement park where young and old alike would try their hands at games of skill and chance and ride the Ferris wheel, merry-go-round, or roller-coaster. No child lacked the means to get to the beach: Kids carrying bathing suits travelled the streetcars free on the six routes that provided a special bathing-car service.

Along with other urban beaches, Toronto’s had long been centres of social life, with these summer playgrounds surpassing all other entertainment amenities. When the city’s sandy peninsula broke off from the mainland in an 1858 storm, determined citizens crossed the harbor to the newly formed islands, first by horse-powered paddleboat and later by steamer, to swim in the clean waters and enjoy the cool breezes. By the turn of the century, the islands boasted boardwalks and parks, resort hotels, a baseball stadium, dog and pony circuses, diving horses, and other entertainment.

Beaches sprang up everywhere to meet an appreciative citizenry’s needs. The Scarborough Beach Park offered 250 bathers shallow waters, and the opening of Beaches Park drew 60,000 Torontonians for a giant bonfire.

Back in 1922, Mayor Maguire had reason to be proud of his legacy to future generations. He had made Sunnyside a priceless asset, a lakefront property open to working class families who couldn’t afford summer camps or the gentry’s cottage-country estates. Sunnyside had become a parcel of real estate that provided a clean summer sport for city kids, a centre of recreation that promoted fitness in an era that didn’t need high-tech exercise machines to keep muscles toned.

But the mayor’s legacy didn’t last long. Swimmers no longer plunge, carefree, into Sunnyside’s waters. Because children get coughs or earaches after playing in the waves, many parents forbid them to go to the beach. Even those brave—or ignorant—enough to swim, all too often have no choice: Sunnyside, like so many other urban beaches across Canada, is often closed. The city shore conjures up visions no longer of playlands, but of wastelands. We have come to think of a day at the beach as an event that demands a two-hour drive to the country.

PUBLIC HEALTH AUTHORITIES ROUTINELY CLOSE—OR “POST”—BEACHES WHEN HIGH LEVELS OF BACTERIA CONTAMINATE BORDERING WATERS, SCARING OFF WOULD-BE SWIMMERS WITH SIGNS TYPICALLY READING: “WARNING. UNSAFE FOR BATHING. HIGH LEVELS OF BACTERIA IN THESE WATERS MAY POSE A RISK TO YOUR HEALTH.”

Last summer, Toronto’s Department of Public Health posted beaches on the city’s west side some three-quarters of the time. Some years, it warns swimmers away for virtually the entire summer. Recent years have also seen beach closures in other communities along the Great Lakes’ shoreline, from Thunder Bay to the St. Lawrence river, among them Hamilton, Ajax, Oshawa, Belleville, and Kingston. Gananoque simply gave up on its beach: After repeated pollution-related closings in the 1980s, the town’s recreation director told the Kingston Whig-Standard that “it just proved to be not worth it any longer.”

In the nation’s capital, the Ottawa Citizen described Ottawa’s Britannia Beach as a giant toilet that doesn’t always flush. Britannia is often closed by late summer; in some years, the water becomes contaminated as early as May.

Even coastal cities—where ocean temperatures, tidal and wave action, and the sheer volume of water might be expected to moderate pollution—aren’t spared. Bacterial contamination periodically prevents swimming at Halifax’s beaches and has even caused the cancellation of windsurfing competitions in the city’s harbor. On the West Coast, authorities post, among others, four Richmond beaches year round. Temporary postings, far more common, have closed beaches in New Westminster, White Rock, Nanaimo, and other B.C. communities.

YOU’RE LOOKING AT THE PRIMARY POLLUTOR OF OUR CITIES’ BEACHES EVERY MORNING WHEN you look at yourself in the bathroom mirror. Although animal wastes and storm sewers are sometimes the chief culprits, most of the problem comes from our own toilets. Government regulators know of—and permit—the sewage pollution. We can’t blame some wicked industry that, driven by lust for profit, discharges effluent in the middle of the night. We can only blame ourselves, our publicly owned sewage works, and our government regulators, who allow the desecration of our beaches to continue unchecked.

Sewage pollution has transformed city beaches into sources of sickness, and not just of skin, eye, ear, nose, and throat infections. Salmonella and Shigella, bacteria common in sewage, cause diarrhea and other gastrointestinal problems. Giardia, a parasite, causes beaver fever. Bacteria in sewage can also cause more serious diseases such as tuberculosis, cholera, and typhoid fever, while viruses can cause hepatitis, meningitis, polio, and a host of other illnesses.

While sewage treatment and the monitoring of beaches have prevented the sewage pathogens from causing epidemics, they do not prevent individual infections. A 1980 study of typical Ontario beaches found that 69 of every 1,000 swimmers had become ill within 10 days of swimming,
compared with 29 of every 1,000 nonswimmers. Even relatively clean beaches sicken swimmers. The Natural Resources Defense Council warns that Great Lakes waters that meet U.S. Environmental Protection Agency standards will cause eight illnesses per 1,000 swimmers. In other words, if 100 people swim on 10 occasions at a “passed” beach, say each Saturday and Sunday in August, eight will fall ill. Environment Canada assumes a higher rate of illness in people who swim in waters that meet its own looser standards: It predicts that between 10 and 20 of every 1,000 swimmers will get sick. Children are especially at risk, in part because they tend to swallow water.

Because of the expense of testing for all of the different contaminants—especially viruses, which are difficult to detect—health officials generally take a short cut, testing either for fecal coliforms, bacteria found in the feces of warm-blooded animals, or for E. coli, a particular species of fecal coliform. When a litre of beach water contains more than 2,000 fecal coliform colonies, the federal government and most provincial governments consider it time to close a beach. In Ontario, where guidelines are more stringent, a count of 1,000 E. coli rates as too much.

Testing only for fecal coliforms can be misleading: Sewage treatment that knocks out fecal coliform bacteria might leave dangerous doses of the harder viruses in place for weeks or months. And once the sewage, whether treated or untreated, reaches a lake, river, or ocean, the bacteria in it are inactivated more rapidly than the viruses. The absence of fecal coliforms guarantees nothing. Waters that pass the health department’s fecal coliform tests, especially recently contaminated waters, will often make you sick. If the water quality changes regularly, according to Dr. Pierre Payment, professor of virology at the University of Quebec’s Armand Frappier Institute, the risk of becoming ill doubles.

Testing procedures present additional problems. Health officials generally sample only the water itself. But the sediment under the water and the spray above it may contain higher concentrations of contaminants. The University of Toronto’s Dr. Patricia Seyfried, who found levels of some micro-organisms to be at least 10 times higher in sediment than in surface water, warns that swimmers may stir up bacteria, increasing their exposure as they play. American research found that aerosols in ocean spray can concentrate viruses 200-fold.

If all this makes you think twice about swimming in urban waters, you’re not alone. In a study prepared for Canada’s Minister of Health and Welfare, Dr. Payment concluded: “Surface waters contaminated by non-disinfected treated or untreated wastewater would not normally be suitable at any level for recreational activities involving immersion.” The professor is telling us not to swim in sewage—even, in most cases, treated sewage.

The bacteria, parasites, and viruses found in human sewage have an easy time making their way to our beaches. Maritimers flush their toilets directly into their harbors: Over 600,000 people in Atlantic Canada discharge an annual 100 million cubic metres of untreated sewage, more than a quarter of the region’s domestic and commercial wastewater. Halifax and Dartmouth produce more than half of this pollution, discharging almost 55 million cubic metres of untreated sewage into Halifax harbor. Were this sewage spread over the City of Halifax, residents would be thigh-deep in the stuff. Under a similar scenario, those living in St. John’s, which dumps over 38 million cubic metres a year of raw sewage into its harbor, would find themselves knee-deep.

On the West Coast, 13 municipalities merelyscreen or chop up their wastes before sending them seaward. While most of these polluting communities are small, the group does include, to the disgust of neighboring Washington state, the City of Victoria, which argues that quick dispersal in the ocean renders its wastes harmless.

Even inland Quebec, which doesn’t have ocean currents to justify dirty habits, discharges raw sewage. Though Quebec has come a long way since 1978, when it treated only two per cent of its sewage, a million and a half people living in 376 communities still flush their sewage directly into the province’s lakes and rivers.

Not that sewage treatment plants necessarily make all that much of a difference. Inadequate sewer systems often prevent sewage from reaching the treatment plants. Combined sewers, which carry both sanitary sewage and stormwater to sewage treatment plants, are especially dicey. During a rainstorm, the water volume overwhelms them: The sewers either back up into people’s basements, or, more commonly, allow their contents—raw sewage and all—to overflow through emergency outfalls into nearby waters.

The combined sewers that service much of Vancouver and New Westminster, along with a portion of Burnaby, often discharge some 200 times a year, flushing 62 million cubic metres of untreated sewage into the Fraser river and Burrard inlet—a volume equivalent to, as the Sierra Legal Defence Fund points out, 1,489 Exxon Valdez oil spills, or four spills each day of the year. Combined sewers in Victoria, Edmonton, Regina, Winnipeg, Brandon, Hamilton, Toronto, Ottawa, Quebec City, Montreal, and Charlottetown also overflow.

Even sewage that makes it to treatment plants may soon spoil local waters. Many plants provide only “primary” treatment: They hold the wastes in large tanks, skimming off the scum and allowing the solids to settle before releasing the
liquids. In his Health and Welfare study, Dr. Payment concluded that primary treatment has little effect on the bacterial or viral content of wastewater. Yet 2.2 million Quebeckers, 1.6 million British Columbians, 1.3 million Ontarians, and 165,000 Atlantic Canadians rely on nothing more.

The more common “secondary” treatment, in which micro-organisms break down and consume the organic matter in the wastewater, fails to remove many of the parasites and viruses that threaten public health. This partial treatment, Dr. Payment warns, “constitutes a major public health risk if the receiving waters are to be used for recreational activities.” Only a disinfecting “tertiary” treatment—preferably using ozone or ultraviolet light—protects swimmers.

Many plants are too small to handle the sewage they receive; others are simply ill maintained or badly operated. From sea to slummy sea, the effluents of hundreds of such plants regularly fail to comply with provincial standards. The problem threatens to worsen in coming years as populations grow, overburdening the many treatment plants that are already working close to their capacity.

The Ontario government’s reports on discharges from sewage treatment plants tell a grim story. In 1993, the last year for which it published figures, 72 facilities exceeded their approved discharge limits. The reasons given for the unacceptable discharges varied: Inadequate levels of treatment, insufficient capacity, construction errors, equipment breakdowns, improper handling, incorrect operating procedures, inadequate sampling and testing, unusual influent and weather all show up in the list of excuses. The operators’ determination to correct the problems also varied: While some addressed their plants’ problems shortly after the polluting incidents occurred, others allowed the problems to continue unabated for years. The fact that almost a third of 1993’s scofflaw facilities had also been out of compliance in the previous year indicates the government’s lax enforcement. And the fact that data on sewage pollution occurring in 1994, 1995, or 1996 still isn’t available increases suspicions that pollution control does not top the government’s list of concerns.

Regulators in other provinces are hardly more attentive to pollution from sewage treatment plants. The Nova Scotia Department of the Environment’s M. T. Grant assumes most of the province’s plants to be delinquent. In the absence of sufficient manpower and good monitoring, she adds, it is very hard to know what is going on. “The enforcement you would expect is not there.”

Nor is the enforcement there in Quebec. Every year, Quebec’s Ministry of Environment grades the province’s sewage treatment plants. In 1993, the last year for which information is available, 69 plants received unacceptable grades. Another 57 plants were not evaluated; 16 poor performers among them likely failed to comply.

Non-complying plants are also the norm in British Columbia. More than half of the province’s sewage treatment plants either are known to be out of compliance with provincial water quality regulations or, having failed to submit required monitoring data, are deemed by provincial regulators to be out of compliance. One chronic offender, Vancouver’s Annacis Island plant, has appeared in 13 of the province’s last 14 semi-annual non-compliance reports.

Our sewage systems’ owners and operators shrug off their shameless record. No one gets fired, or even reprimanded, not because provinces lack tough laws, of which they have several, but because laws are rarely enforced. Government regulators also disregard the federal Fisheries Act, which provides for fines of up to $1 million a day and jail terms of up to three years for those who deposit “a deleterious substance of any type in water frequented by fish,” and which should, in theory, guard against virtually all sewage pollution. Those in charge of enforcing our laws behave as if those very laws simply didn’t exist. Neither Nova Scotia nor Quebec has ever prosecuted a polluting sewage plant. And in Ontario or British Columbia, you could count the prosecutions on one hand.

Our governments’ reluctance to curb sewage pollution is hardly surprising. After all, they would have to fund many of the required improvements. Some provinces, such as Ontario, own or operate many sewage treatment plants. Other provinces have assumed financial responsibility for the construction and repair of municipally owned plants. Quebec finances between 85 and 94 per cent of the construction cost. In Newfoundland, financial assistance ranges from 30 to 80 per cent. In British Columbia, from 25 to 75 per cent. In Nova Scotia, the figure is 50 per cent.

If governments enforced tough laws against sewage pollution, they would face enormous bills. A study by Ontario’s Ministry of Environment and Energy estimates it would cost $100 million merely for the province’s secondary treatment plants to comply with existing guidelines. Ontario’s Halton region expects its new water and sewage system to cost between $400 million and $500 million. The Remedial Action Plan office, set up under the U.S.-Canada Great Lakes Water Quality Agreement, has calculated that Metropolitan Toronto’s combined sewers and inadequate sewage treatment plants could require an investment of $885 million. A report by the National Round Table on the Environment and the Economy estimated that, over the next 20 years, Canada will need to invest between $38 billion and $49 billion just to maintain its existing water and sewage infrastructure. On top
of that, the round table predicts, we will need to invest $41 billion in new stock. Tighter standards would mean even higher costs.

Governments — federal, provincial, and municipal alike — are increasingly reluctant to foot the bill for sewage system repairs or upgrades. Lacking the money — and, more important, the political will — to meet even current standards, they are extremely unlikely, on their own, to eliminate combined sewer overflows or to upgrade plants to provide full treatment with disinfection. Governments are going to need help. And the help is going to have to come from the private sector.

Governments across Canada are already turning to the private sector for help. A debate about privatization has engaged Quebec for several years. As early as 1993, former Treasury Board president Daniel Johnson suggested that the private sector should administer water treatment facilities. “Every time public services can be offered based on the market forces of competition and efficiency,” he explained, “they cost less for the taxpayer.” Such words have delighted the Montreal government, a strong advocate of privatization, while frightening the city’s unions, which increasingly resist the prospect. Nova Scotia, too, hopes for private sector assistance with sewage pollution problems — such as those in Halifax harbor — that are just too big for the government to solve on its own. In 1994, Ross Bragg, Nova Scotia’s former Economic Development minister, explained his uncomplicated position to the Globe and Mail: “I see a big, big role for the private sector. Government can’t go out and finance all these things themselves. Why not let the private sector do some of these sewer and water projects?”

Taking a different approach, Ontario is talking of selling the Crown corporation that operates many of the province’s sewage treatment plants. A number of Ontario cities have begun experimenting with private sector involvement. Since Hamilton-Wentworth first contracted out the operations of its water and sewage works in 1995, the list of communities eyeing some degree of privatization has grown to include Ottawa-Carleton and the regions of York, Halton, and Waterloo.

This growing interest in the privatization of water and sewage services distresses many Canadian journalists. Toronto’s newspapers overflow with warnings of skyrocketing prices and plummeting services, should water and sewage be privatized. The doomsayers inevitably base their case on Britain’s recent experience with privatization. The Toronto Star’s Christina Blizzard, calling Britain’s “lousy experiment” a “nightmare,” fears “water torture” for Ontarians if politicians proceed with privatization. James Laxer, writing in the Toronto Star, urges Ontarians to pay heed to the results in England and Wales, where privatization has engendered “popular loathing.” In the Globe and Mail, David Wallen refers to “accusations of blatant profiteering” on the part of Britain’s private water and sewer companies. Likewise, on television, the fifth estate’s Linden Macintyre recounts “a cautionary tale” from Britain.

Not surprisingly, labor also warns of higher prices and poorer quality — not to mention fewer unionized jobs — under a privatized system. Labor organizations have formed a coalition with environmental groups, who seem equally certain that, based on Britain’s experience, privatization will spell doom for Canadians: Toronto’s Safe Sewage Committee refers to Britain’s “gross mismanagement of water resources,” while the Canadian Environmental Law Association calls the British experience “an important caution.”

What has happened in Britain? The privatization, in 1989, of the companies responsible for water supply and sewage treatment in England and Wales has, for some, been a nightmare. Average water and sewerage prices doubled between 1989 and 1996, creating hardship for the thousands of poor who have been disconnected for not paying their bills. Even well-off customers resent the fact that they can’t keep their bills down by using less water. Only eight per cent of the households in England and Wales have water meters, without which consumers are powerless to control their costs. It’s not just water prices that critics complain of. Some complain that their bills support fat salaries for company executives. Others object that the new companies aren’t moving fast enough to fix water mains that have been leaking for decades. Still others point to lingering regulatory problems, including the low fines resulting from prosecutions for pollution.

But before you write off privatization, consider this: In both England and Wales, privatization has benefited the environment enormously. Even its harshest critics agree that privatization has made coastal beaches swimmable. Britain’s beaches, polluted by raw sewage, had long been a national disgrace. Back in 1975, when the European Community issued a directive giving member countries 10 years to bring their “bathing waters” up to uniform standards, the British government went into denial, claiming the country had but 27 beaches; in the government’s opinion, even the sandy stretches at the famous Brighton and Blackpool resorts didn’t qualify. Not until 1987 did the government come clean and admit that hundreds of beaches encircled its island. By the following year, only 241 of 364 designated beaches met European bathing water standards. After privatization, both designation and compliance steadily increased. By last year, Britain boasted 433 beaches, of which 386 complied.
with European standards. In short, the country’s 10 new water and sewage companies have “created” 69 beaches, and cleaned up 145 beaches.

More surprising than the number of private water companies meeting European standards (after all, they don’t really have a choice), is the number exceeding the standards. Four companies have agreed to install full treatment plus disinfection – unheard of under the former public regime – at some or all of their sewage treatment plants. Welsh Water was the first to adopt a bold treatment policy, promising in 1993 to fully treat and disinfect the effluent at all 230 of its coastal outfalls. The company has already completed several new schemes that include either ultraviolet light or membrane disinfection; several more will be completed this year. By the year 2000, the company intends all but three of its plants to meet guidelines that are 20 times stricter than are current European standards.

Wessex Water is also committed to improving coastal discharges beyond the legal minimum requirement. For 11 of its outfalls now releasing raw sewage, Wessex has promised upgrades to provide at least secondary treatment plus disinfection by 2005 – and in some cases, much sooner. South West Water has also committed to providing full treatment with ultraviolet disinfection at several resorts, earning a prominent environmental group’s high praise. In the words of Chris Hines, director of Surfers Against Sewage, “Instead of trying to get away with the bare legal minimum, they have grasped the nettle and gone for the best option for all.”

Early this year, Yorkshire Water joined the fray, announcing that by the year 2000, it would provide full treatment with ultraviolet disinfection at four locations – locations for which it had initially planned only primary treatment.

Privatization has also reversed the deterioration that plagued English and Welsh rivers and canals throughout the 1980s. Regulators test some 40,000 kilometres of inland waters. Between 1990 and 1995, while the quality of about 225 kilometres of inland waters deteriorated significantly, the quality of more than 3,000 kilometres improved significantly. In 1990, less than 48 per cent of the rivers and canals tested were classified as very good or good. By 1995, 60 per cent were so classified. During the same period, the percentage of rivers classified as poor or bad declined from 15 to 9.

Improvements in river quality can be attributed in part to more sewage treatment plants meeting the standards that govern their discharges: The percentage of plants complying with their discharge permits increased from 87 to 96 in the first five years following privatization.

WHAT EXPLAINS THIS STRIKING TURNAROUND? Public pressure has certainly influenced the water and sewage companies. The members of Surfers Against Sewage, driven, they say, by the experience of tasting raw sewage on their lips, have led the fight for cleaner beaches. SAS, which describes itself as Britain’s coolest environmental group, definitely makes an impression: Companies and regulators alike find it hard to ignore wetsuit-clad lobbyists carrying surfboards and inflatable feces. Formed in 1990, SAS initially targeted South West Water, demonstrating at its public appearances and attending its annual general meeting as shareholders. It soon expanded its arsenal to include legal actions against polluters. Public complaints are another favorite tool. Page after page of SAS’s newsletter carries admonishments in bold or capital letters to report every trace of pollution to the authorities. Phone and keep phoning, it exhorts its readers, printing telephone numbers to facilitate the reporting. Not surprisingly, public complaints have skyrocketed. SAS’s relentless “pressurizing” has yielded impressive results.

Although it would like more companies to go further and faster, it acknowledges that “increasingly, the industry seems to be moving in the right direction.”

At the other end of the consumer protection spectrum is the Tidy Britain Group, which takes a more measured approach, giving Blue Flag awards to beaches that surpass current standards. The group’s director general Graham Ashworth explains that “the awards have established a set of national beach management standards towards which all beach authorities can work.”

The Marine Conservation Society similarly rates beaches. In conjunction with Reader’s Digest, it publishes an annual Good Beach Guide providing information on water quality and other factors at more than 900 beaches. Although the guide still condemns many beaches as “highly unsuitable for bathing,” “very badly polluted,” or even “appalling,” it praises increasing numbers.

Environmental groups vigilantly monitor inland sewage pollution as well. Friends of the Earth’s River Pollution: A Sleuth’s Guide instructs readers on how to spot pollution, trace it to its source, determine if it exceeds allowed limits, and, if so, report it to the authorities. FOE urges its readers to become “part of a national network of pollution sleuths” that serve as “the eyes, ears, and noses” of the environmental regulator.

FOE’s ability to teach concerned citizens how to use information published by Britain’s environmental regulator reflects the extent to which times have changed. For decades, the British government kept its sewage pollution a well-guarded secret. Even when the government introduced a pollution permit system in 1951, it concealed the permits’ contents from the public and made the publication of information regarding compliance, with few exceptions, illegal. The public couldn’t know of – let alone complain about – scofflaw plants.
Although Parliament voted in 1974 to establish public registers of permits and compliance, ministers – Labour and Conservative in turn – delayed implementing the change for another 11 years.

Not until 1985 could a concerned citizen learn what poisons a sewage plant spewed into local waters. But even then, the information was hardly accessible: The government had changed the nature of discharge permits to hide violations. Former water authority executive, government advisor, and environmental regulator David Kinnersley calls the change an “environmental betrayal” whose “only effect was to make the illegal operation of sewage work discharges less obvious and thereby less embarrassing to the Department of the Environment.” “Illegality,” he explains, “was to be veiled in statistical obscurity.”

Mr. Kinnersley describes overcoming this “potent culture of government concealment” as one of the primary challenges facing the regulators of newly privatized water and sewage companies. He praises the openness achieved in the first years of privatization. Discharge records are now available to the public. Citizens know more than ever before. As a result, they are involved as never before.

**England’s and Wales’s New Water and Sewage Companies**

have responded to public and government demands with unprecedented levels of investment. The need for massive capital expenditure had been a primary force driving privatization. During the 1970s and 1980s, cash-short Labour and Conservative governments stemmed the flow of spending on water and sewage infrastructure, allowing the system to deteriorate. By the late 1980s, the government estimated it would require almost $54 billion within 10 years to meet new European standards. But it recoiled from the borrowing and price increases needed to finance the improvements. “No votes in shit” is how SAS explains successive governments’ reluctance to invest public funds. Although David Kinnersley is more delicate in describing “the financial harness of Whitehall,” his conclusion is the same: Governments worry that increased water bills will cost them votes.

In 1986, when the Secretary of State for the Environment first presented the idea of privatization to the British Parliament, he argued that the new water and sewage companies wouldn’t suffer “from the constraints on financing which public ownership imposes.” Indeed, free from such constraints, the companies have invested a whopping $19 billion in sewage collection and treatment. They have repaired sewers, reduced overflows, modernized plants, and constructed treatment facilities where none existed before. But even these billions have been insufficient to undo the damage caused by decades of government neglect: The new companies plan to invest another $33 billion in improving their sewage systems over the next eight years. As one official from the Department of the Environment noted, “You just couldn’t contemplate that kind of expenditure in the absence of privatization.”

The figures for individual companies are staggering. South West Water has invested $1.5 billion in its Clean Sweep program to clean up the coast of Devon and Cornwall. Until privatization, the region discharged almost 40 per cent of its sewage, with little or no treatment, into tidal waters; as a result, fewer than two-thirds of the region’s beaches met water quality standards. Within six years, South West Water had completed 20 of 33 planned treatment schemes, providing sewage treatment to over 200,000 new customers and bringing 95 per cent of the region’s beaches to standard.

North West Water is spending $1.1 billion on its Sea Change program, which, by financing 12 new or upgraded sewage treatment works, will enable the company to clean up more than 600 kilometres of coastline. Southern Water, in Operation Seaclean, is devoting hundreds of millions of dollars to new treatment works and stormwater retention tunnels. And through Project Clearwater, Anglian Water is investing almost $600 million in improving bathing waters.

**When England’s and Wales’s New Water and Sewage Companies Drag Their Feet**

a tough environmental regulator is there to prod them. The Environment Agency monitors sewage treatment and disposal and enforces the laws and regulations limiting sewage pollution. Prosecutions for environmental offences, rare under the former public regime, are now the norm: Recent years have seen over 200 successful prosecutions of water and sewage companies.

Before privatization, conflicts of interest prevented effective 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. . . .” More weight was given to the need to protect the water authorities against unfair prosecution than to the need to protect the environment and river users.”

An image introduced in 1987 by Secretary of State for the Environment Nicholas Ridley illustrated the tensions inherent in public ownership. In a publicly owned system, Ridley explained, the government acts as both “poacher” and “gamekeeper.” Ridley expressed his government’s increasing understanding that a major discharger in its own right should not be responsible for controlling discharges. As commentators picked up on Ridley’s distinction between polluter and