Dangerous waters

From Victorian times, the seaside had a downside. Raw sewage, explains RAYMOND SMITH, was a continuing hazard

IS THE BRITISH SEASIDE due for a renaissance? Will a new generation experience beaches cleaner than they have ever been since the advent of mass tourism? After more than a decade of investment in pollution control, the government certainly thinks so.

For all its 18th-century image as a great health-giver, the seaside, by the 19th century, had become the place where people came into contact with other peoples' faeces. Coastal towns adopted the sewerage system of excrement disposal in the mid-19th century and threw their waste out onto their beaches. And they were the longest to persist with the practice. As the water engineer Hugh Tebbutt commented in his 1973 book *Water Science and Technology*, 'Large estuaries and the sea itself have, until comparatively recently, been looked upon as a useful repository for almost any unwanted waste from sewage to radioactive compounds and nerve gases.'

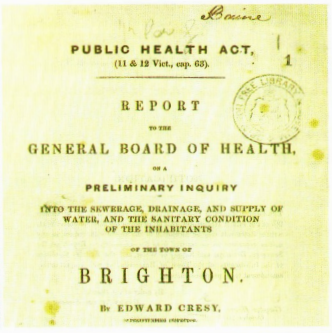
So why did it take so long for Britain to stop using the sea as a dustbin? Certainly it was not for lack of warnings. Progressive civil engineers were criticising the practice by the 1870s (see panel, right). When dumping of sludge at sea was advocated in the 1880s, a Metropolitan Board of Works chemist, William Dibdin, argued 'when it was taken out to sea, it served to manure our fish-fields instead of our corn-fields'. By the 1890s, this became obvious, as eating shellfish contaminated by coastal discharges caused outbreaks of typhoid. Little was done about the threat, however.

A common concern

Eutrophication (the gross enrichment of waters with nitrate and phosphate), had become a common concern by the 1980s. But a Royal Commission on Sewage Disposal in 1911 reported on: 'excessive growths of green seaweeds in sewage-polluted estuaries'. A few resorts installed macerators in the 1930s to break up solid waste before pumping it into the sea. But while this treatment disguised the pollution, it only aggravated the environmental impact on the seas around the outfall pipes.

As the inter-war years saw the new fashion for





Victorians on Brighton beach – but health reports (right) showed they were taking more than just the water

sunbathing, and paid holidays for workers, so after the Second World War, working-class visitors flocked to the seaside, increasing both the numbers exposed to untreated sewage, and medical awareness of the problem. As a result of campaigns by these visitors, the Medical Research Council, in 1953, began investigating sewage contamination. In 1957, the Coastal Anti-Pollution League was formed, focusing on the possible connection between sea bathing and polio, a link first mooted in the 1920s. But when the MRC report finally arrived in 1959, it found there was no threat of disease 'unless the water is so fouled as to be aesthetically revolting'. This complacent assumption underpinned government policy for over two decades.

Stench of dead rivers

While the MRC report may have quieted the warning voices, there were deeper reasons for the century of inaction. It is not just that the original short sea outfall pipes that many seaside towns built to pump sewage into the sea were cheap to install. John Hassan, an economic historian, believes that local seaside councils were reluctant to invest in more elaborate sewage treatment because it cleaned up the sea for holidaymakers who did not pay rates locally, and for neighbouring resorts – both 'free riders', as economists term them. Nevertheless, the resorts were largely dependent on tourism for their income. It is certainly also true that from the early 1900s, many inland towns and cities, whose councils were increasingly reflecting the wishes of newly enfranchised working-class voters, were investing, however inadequately, in sewage treatment and pollution controls, even if much of the benefit would be for their neighbours downstream. Put bluntly, it was because of the smell and obviously polluted appearance of polluted rivers in the towns. While there was a risk that coastal swimmers might encounter floating faeces, this was nothing compared with the all-pervasive stench of the dead urban rivers of Victorian Britain.

This may be why rather more progress was made on the associated estuary pollution, as the stinks could be more obvious. Legislation was passed from the early 1950s to the 1960s aimed at 'cleaning up estuaries', although it only really had the potential to control new pollution and was little used. On the Tyne, a scheme was started in the 1960s to pipe sewage discharges downstream to where the sludge could be removed and dumped in the North Sea. In principle, this was identical to the system that had already been constructed on the Thames 100 years earlier.

The large regional water authorities were created in 1973, by Edward Heath's Conservative government, partly on the premise that, as water suppliers, they would have a vested interest in controlling pollution. Unfortunately, this did not apply downstream of their water intakes. They

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THE GREAT SEWAGE DEBATE

JOSEPH BAZALGETTE, long-famed as the father of London's sewage disposal system, was clear in 1875 of the limitations of existing land disposal. 'If such a mode were adopted for places like Brighton, Bournemouth, Torquay and St Leonards, those towns would soon be deserted by their visitors and would be utterly ruined'. Another engineer, Monson, said that: 'The only idea of disposal seemed to be, "Throw it into the sea, and disregard all future consequences"'. That year at Brighton was seen 'for half mile or one mile in length the sewage floating at the top of the water – a nasty and noxious thing'. Against this, a commentator in 1880 complained that Torquay had been put to the expense of a longer outfall 'in deference to public opinion, or public panic'. The high death rate in Torquay was blamed on it being 'the resort of invalids'. In 1877, Bazalgette's son, Charles, said: 'There can be little doubt that... the proper destination of the sewage is the sea. By some, who insist strongly on the value of sewage, it has been objected that such means... are... an absolute waste of most precious material'. In the 1880s, for example, this argument was used by one Mr Jones, an enthusiast for re-using sewage, who 'protested against sludge going into the sea instead of being used for manurial purposes'.

were, however, well aware of the public pressures to clean up estuaries and beaches. Nevertheless, they were dominated by a fear, for example in the case of the Mersey, of 'the concern of the public everywhere that water charges should not be increased at all for any reason'. Spreading the costs across their region could avoid the 'free-rider' aspect, at the risk of provoking wider hostility.

The pressures of environmentalism and rising health expectations, as well as aesthetic concerns, were well established, but what ultimately produced the move to clean beaches and seas? The debate shifted to the international stage, with Britain's entry into the European Economic Community in January 1973. Two years later, the EEC adopted the Bathing Water Directive, which called for beaches to reach new standards of environmental cleanliness within a decade.

The British water industry had reservations about the directive, but considered that the installation of long-sea outfalls, piping sewage beyond the beaches, would cope with its demands. Critics pointed out that the intentions of the directive had been frustrated. For example, the survey of how many people were using British beaches was carried out in the cold summer of 1979, when numbers of holidaymakers were low. The result, as the House of Commons Environment Committee explained in 1990, was that 'Britain designated only 27 beaches, excluding popular beaches such as Blackpool and Brighton'. The Committee continued: 'Application [of the directive] to 350 other beaches was conceded only in 1987, two years after the target date for compliance'. Campaigners in Britain were, however, able to use the EEC legislation to put pressure on the government. Eventually in 1990, also under pressure from European governments worried about pollution of the North Sea, Britain agreed to end sludge dumping at sea and to treat all coastal discharges by 1998.



Making waves: the environmental group Surfers Against Sewage protests about coastal pollution in 1986

Other changes were under way. Margaret Thatcher's Conservative government compelled water authorities to raise their prices, and to show an acceptable return on infrastructure that was decades old as if it were a new investment. This was initially criticised as a 'water tax', but its eventual political acceptance indicated that Britons who had historically enjoyed cheap water, compared to other Europeans, would now pay more. To this was added an ideological change when the regional water authorities were privatised in the early 1990s. Though there were highly-publicised complaints at the salaries some of the new water company chiefs paid themselves – particularly at times of drought – the public generally saw annual water charges that could be linked to much-needed environmental improvements as psychologically preferable to the former water rates, just as people prefer paying for goods rather than paying taxes.

It remains the case that there are health, environmental and aesthetic benefits to be gained from improved coastal pollution control if anyone is prepared to make the investment. With the more recent decisions to continue reducing pollution from storm water overflows, those benefits are still being increased.

JOURNEYS

'Were health resorts bad for your health? Coastal pollution control policy in England, 1945-76'; *Environment and History*, vol 5, February 1999, no 1.

'Underground Manchester' exhibition at the Manchester's Museum of Science and Industry includes a reconstructed sewer. Tel: 0161 832 2244. www.msim.org.uk.