

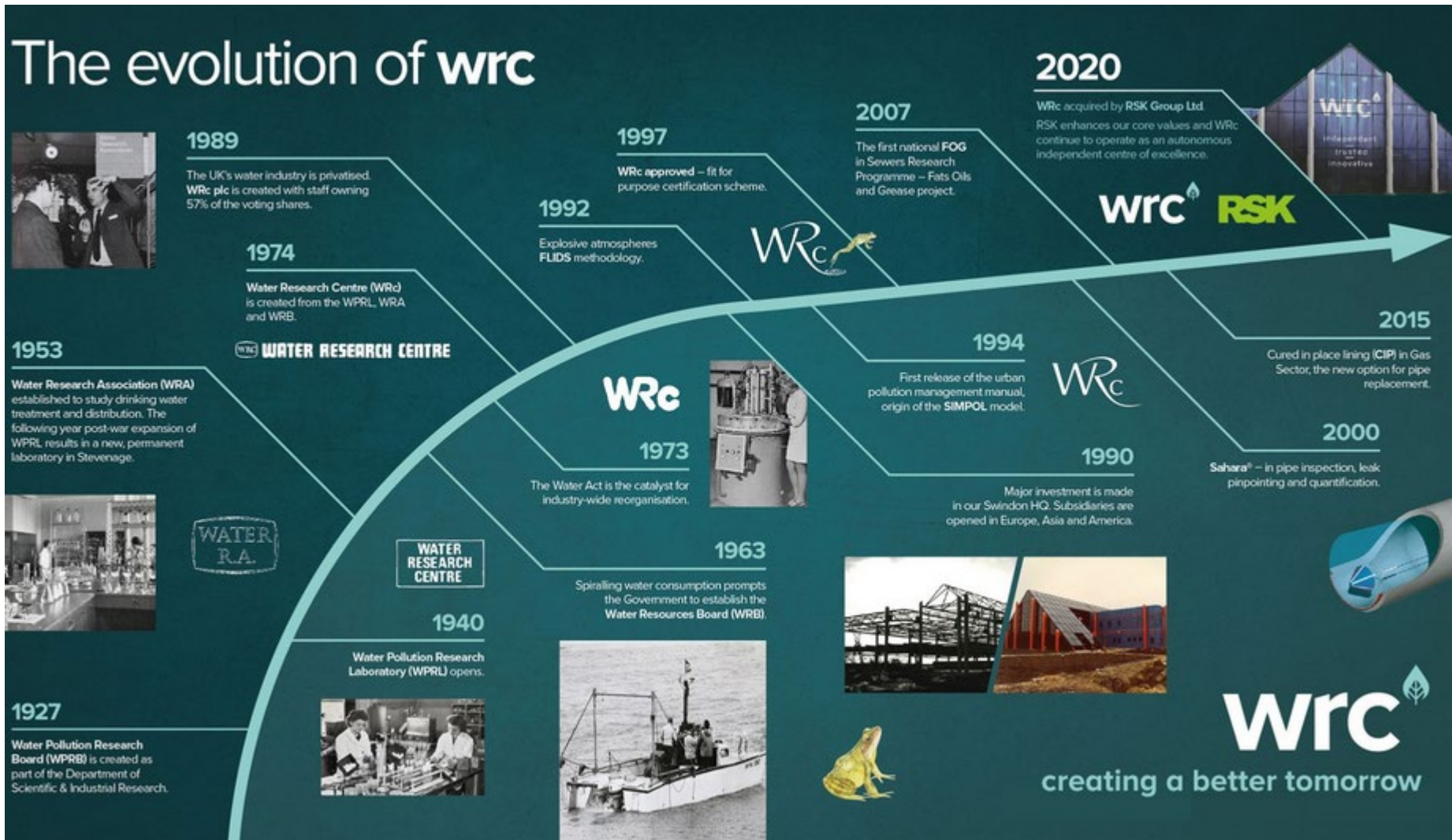
Jo Parker, Associate Consultant, WRc

THIRTY YEARS OF REFORM IN ENGLAND AND WALES - WHAT CAN NEW ZEALAND LEARN FROM THAT EXPERIENCE ?



water
NEW ZEALAND
CONFERENCE & EXPO
17-19 OCTOBER 2023
Tākina, Te Whanganui-a-Tara Wellington

WRc - a long history



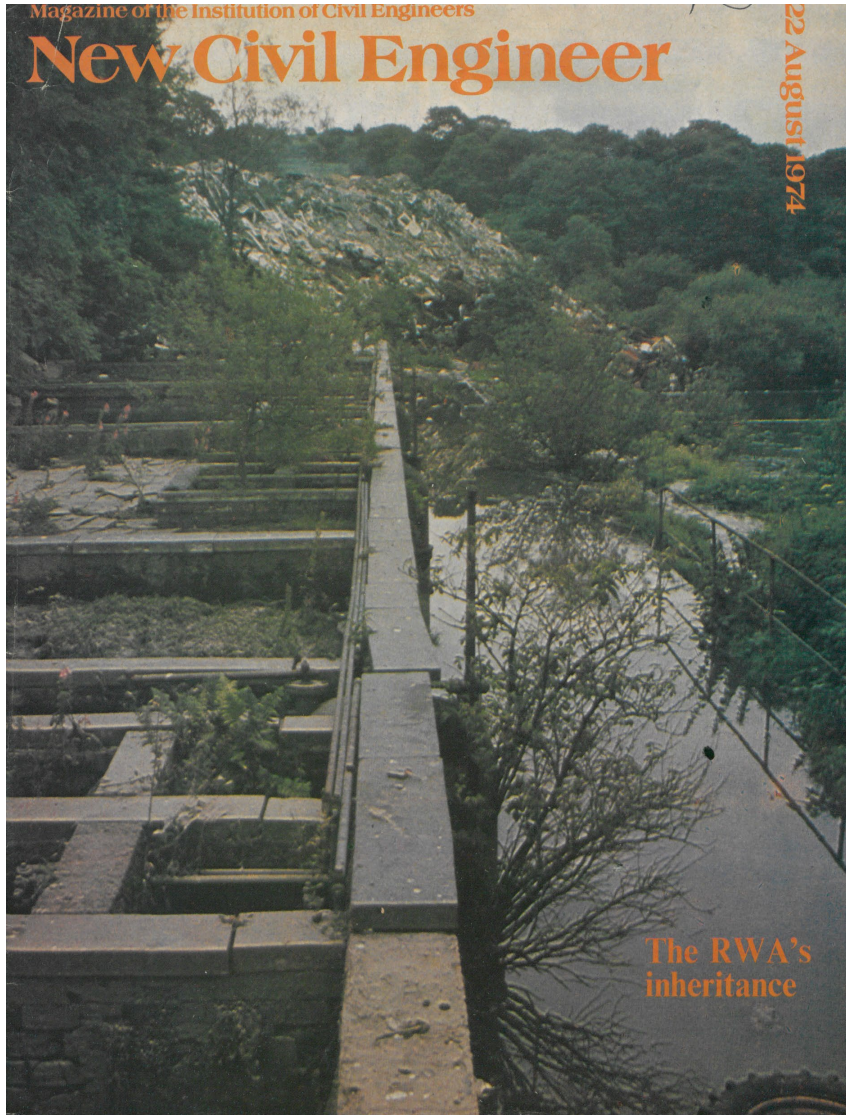
The start of a long journey

water
NEW ZEALAND
The New Zealand Water & Wastes Association Waiora Aotearoa

The logo graphic for Water New Zealand, featuring a stylized white wave or arrow shape pointing to the right, composed of several parallel lines of varying lengths.

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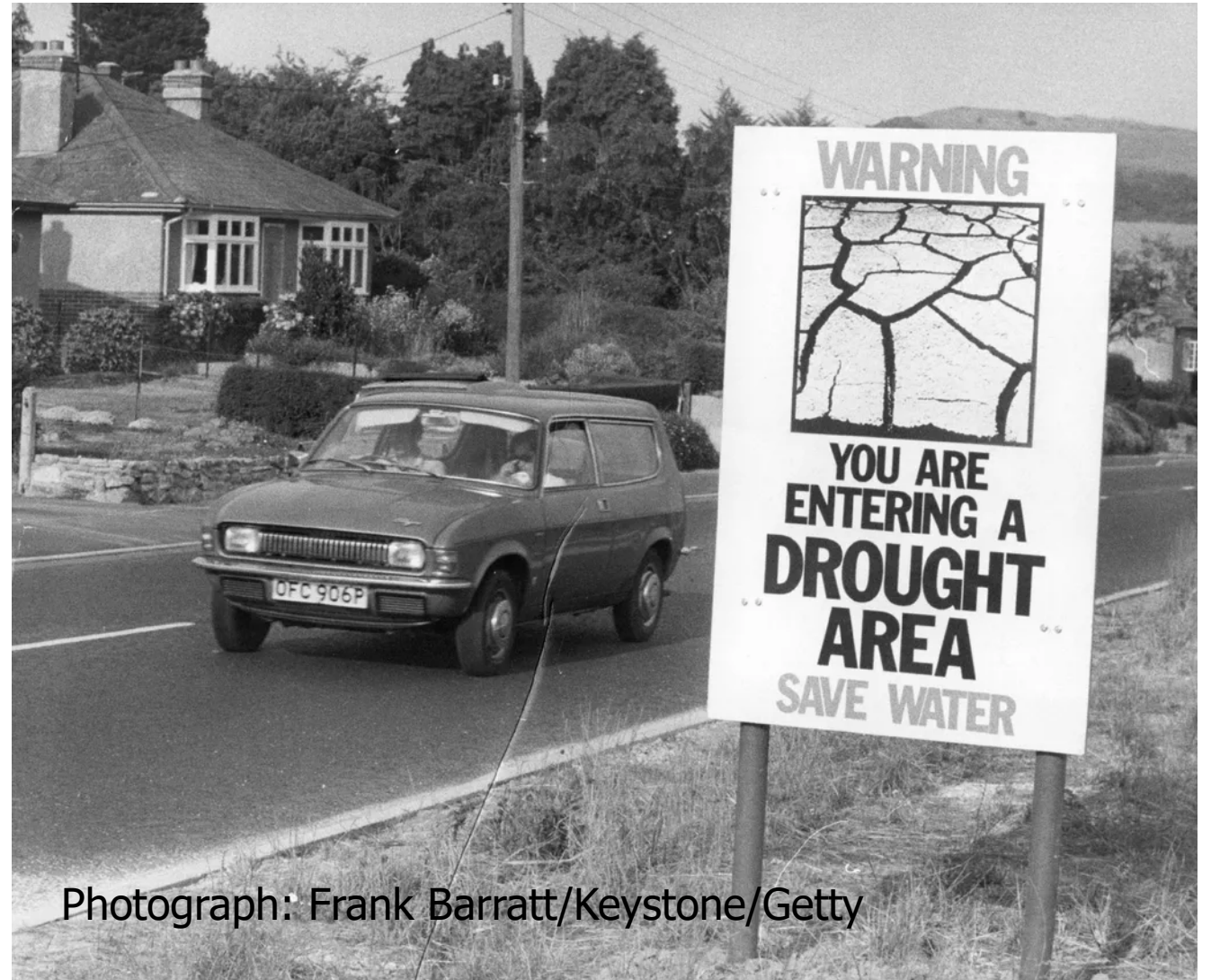
Water Industry Reform – 1974



Drought - 1976



<https://www.bbc.com/news/newsbeat-40358961>

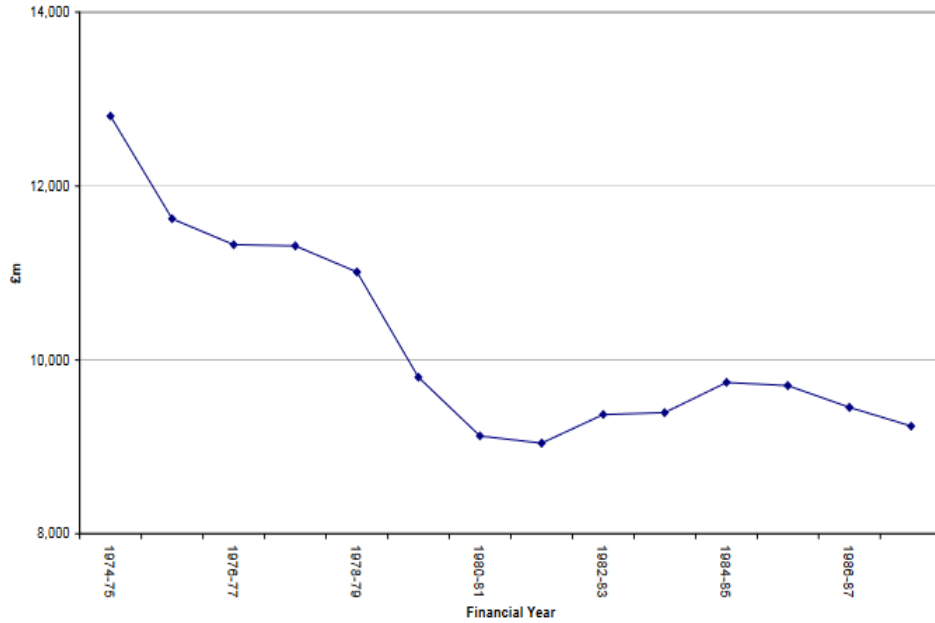


Photograph: Frank Barratt/Keystone/Getty

River Water Quality Improvement 1979



Belt tightening 1980s



Capital Expenditure year on year

Source: Defra/Ofwat



Source: Guardian



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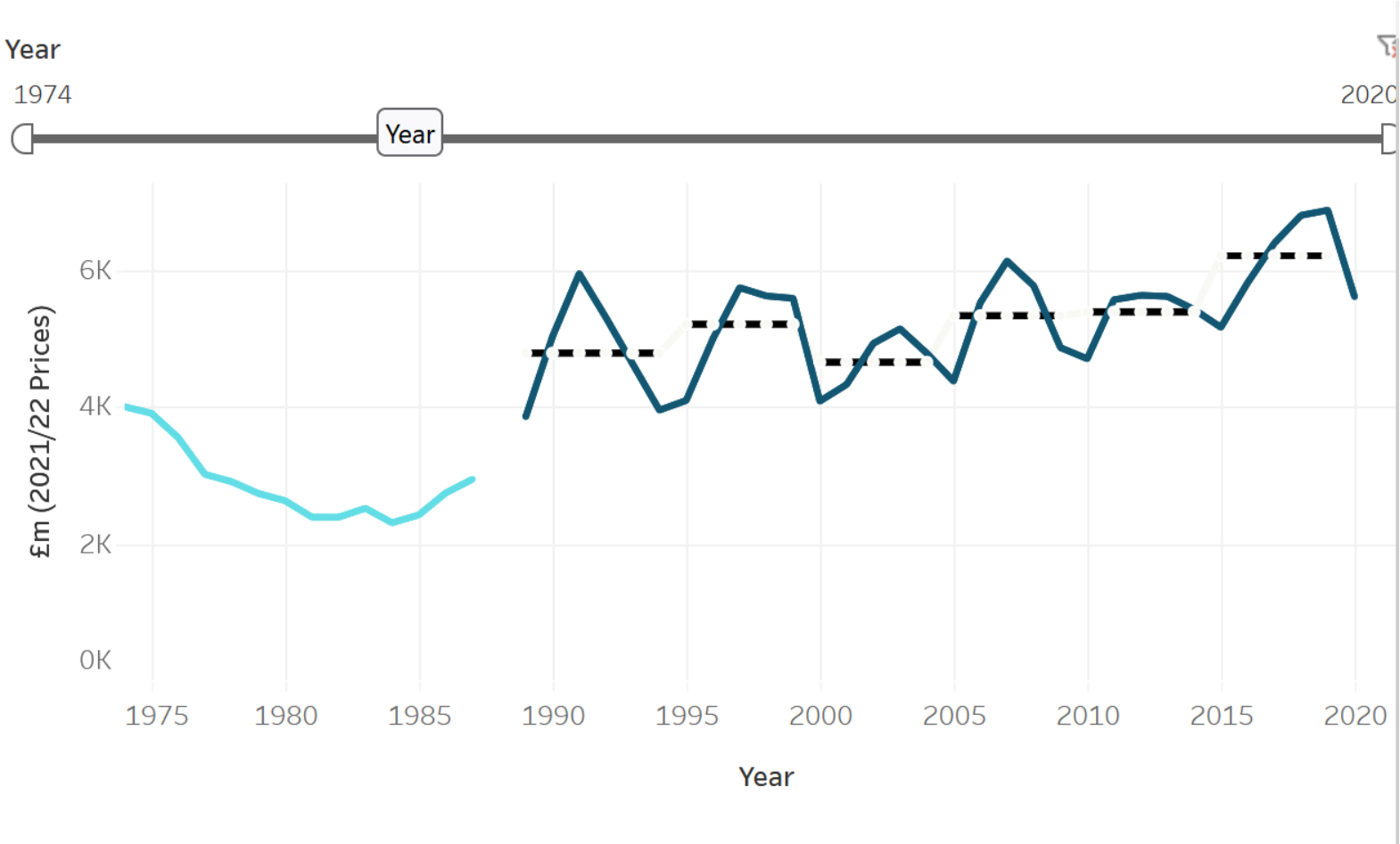
Privatisation and beyond

Privatisation – was it all bad?

- Initial investment – substantial to achieve EC drinking water standards
- Major projects initiated e.g. additional water treatment, TW Ring Main, sewer renovation
- 3 regulators: NRA (later the Environment Agency), DWI, Ofwat
- Comparative competition – collaboration died overnight! Innovation, water resource planning both suffered
- Any innovation cost reductions must return benefits to customer within 5 years – also discouraged innovation
- New businesses



Boom and Bust 1990s



Source: National Infrastructure Commission UK



Cryptosporidium outbreaks 1980s and 1990s

- Badenoch and Bouchier reports
- Gradual improvement in management of water treatment works and sources
- Water quality monitoring for cryptosporidium now carried out to police evidence standards
- Supply of water unfit to drink is a criminal offence
- Water quality passes 99.97% of all tests

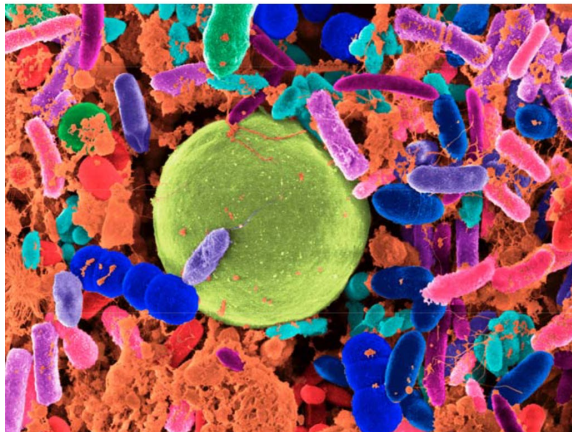
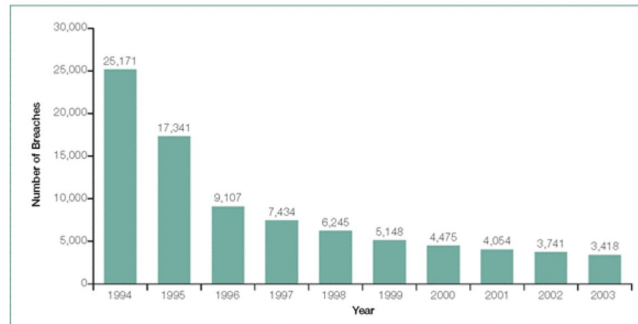
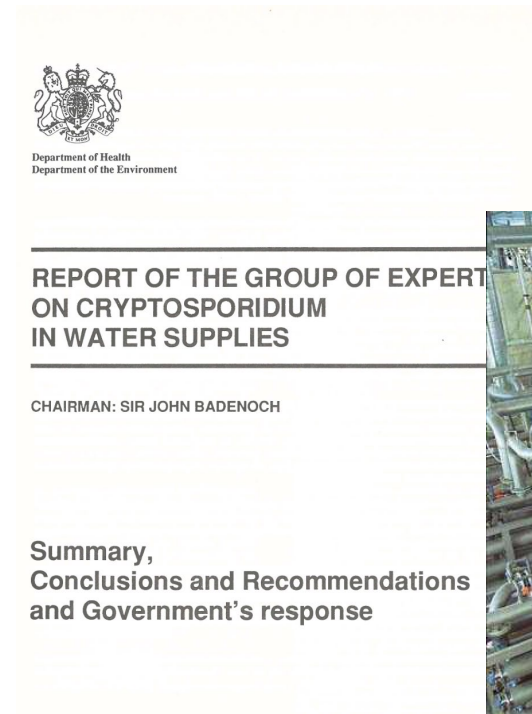


Figure 7.2.1b Total number of breaches of water quality numerical standards in England and Wales, 1994-2003



Source: DWI



Cryptosporidium in Water Supplies

Third Report of the Group of Experts to:
Department of the Environment, Transport and the Regions &
Department of Health

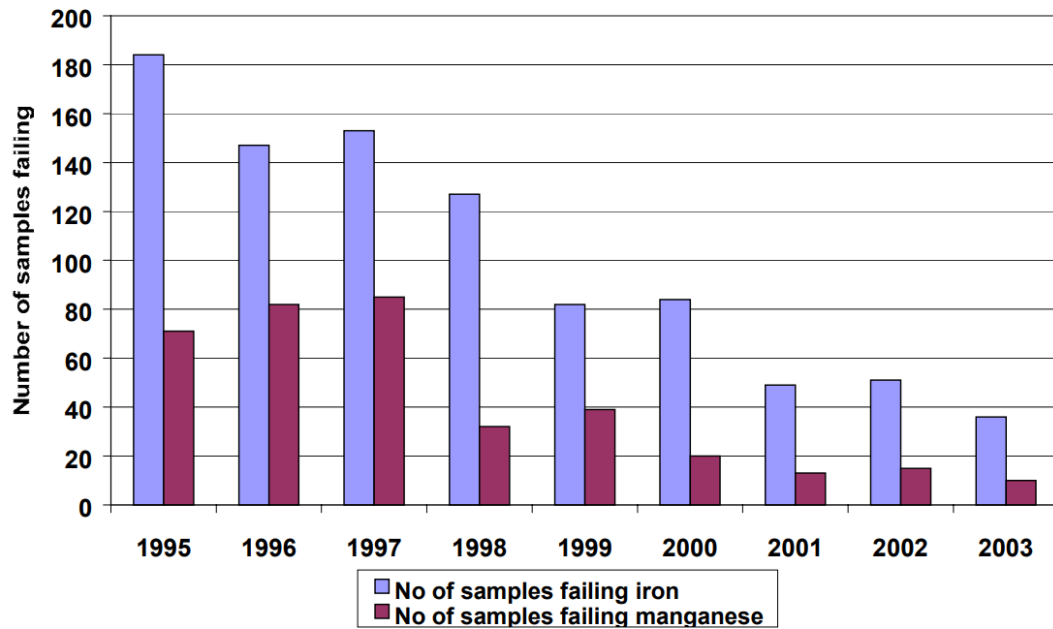
Third Report of the Group of Experts

Chairman – Professor Ian Bouchier

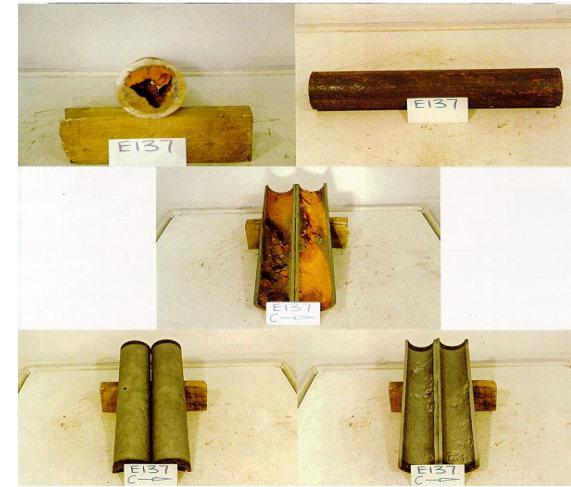


Distribution Water Quality – turn of millenium

Figure 7.2.1e Yorkshire Water –total number of samples failing the iron and manganese standards 1995-2003



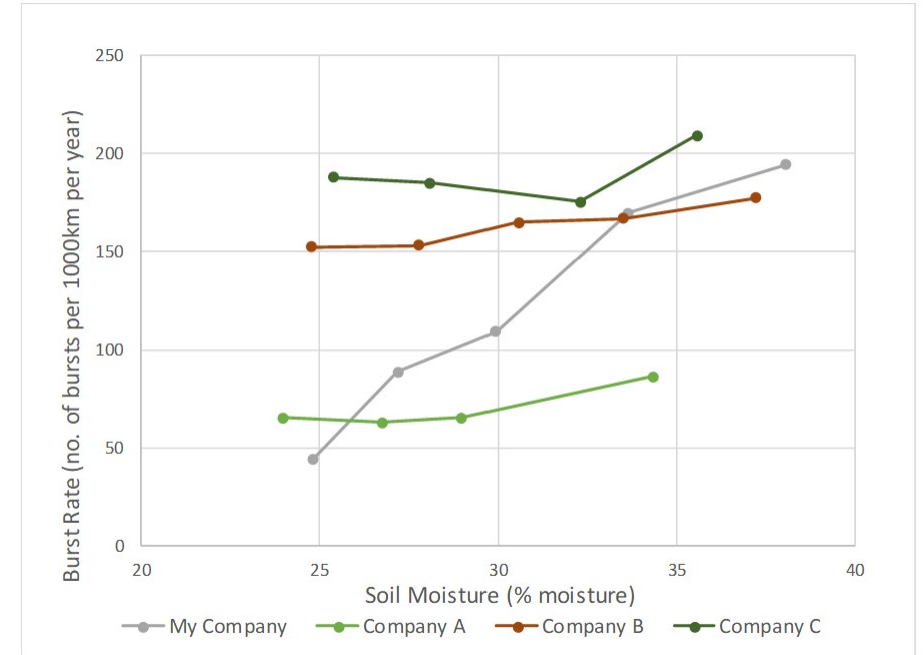
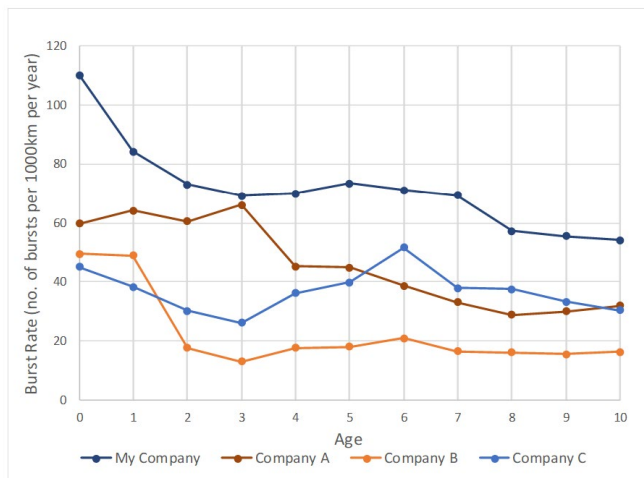
Source: DWI



- Internal corroding and turberculation lead to high levels of iron and in some places, manganese
- Dirty water complaints
- Extensive relining to improve water quality, particularly iron levels
- Assessment and design process to optimise the intervention
- Regulators required pre and post renovation assessment

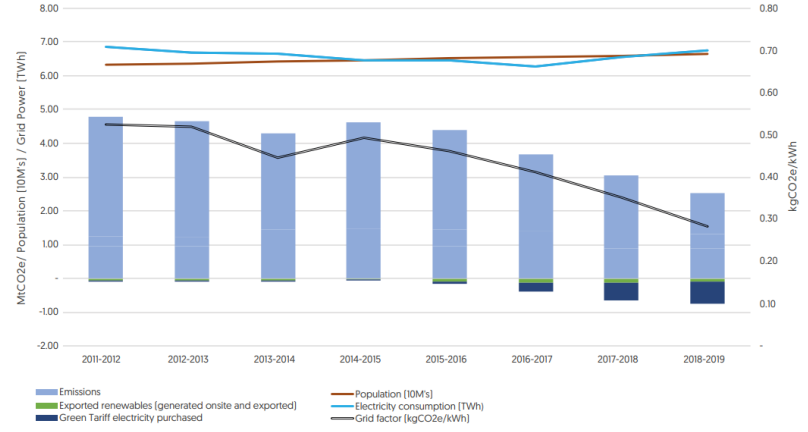
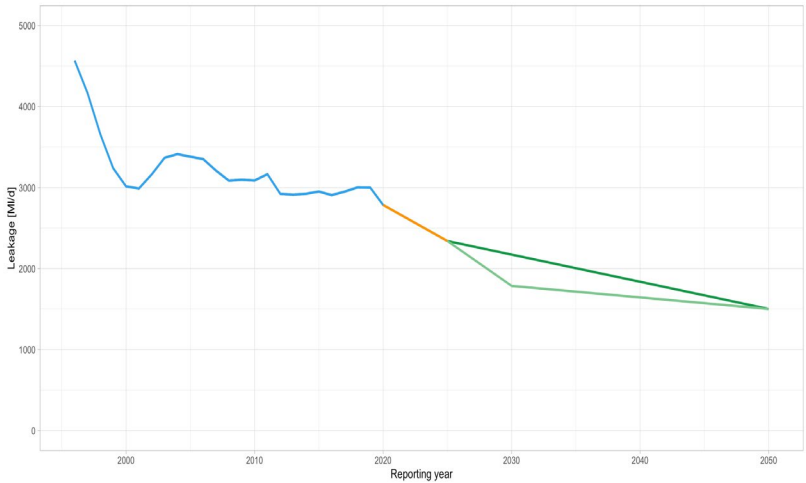
Creation of the National Failures Database 2002

- Started as a club project
- Expanded to cover most water companies
- Pressure to make every pound spent count
- Has not been updated recently
- New project just started to update the whole system
- Longest series of unbroken asset data in the world



Bowing to public concerns 2019

- 5 targets established voluntarily by the water industry
 - Net Carbon Zero by 2030
 - Remove 4 billion plastic bottles by making water refills standard
 - Strategy to end water poverty
 - 100% commitment to the social mobility pledge
 - Triple rate of leakage reduction



2022 Report by Parliamentary Environmental Audit Committee into river water quality



House of Commons

Environmental Audit Committee

Water quality in rivers

Fourth Report of Session 2021–22

Report, together with formal minutes relating to the report

Ordered by the House of Commons to be printed 5 January 2022

- One of the most comprehensive reviews ever held
- Generally considered unbiased
- Critical of water industry but also agriculture and highways run off
- Started a more detailed investigation
- Some of the information only available due to programme started in 2016 to monitor flows at all overflows
- Coupled with more people wanting to swim in rivers during COVID
- Estimate from Stantec £350 - £600 billion to rectify
- 22,000 overflows in UK
- Government have just announced (25 Sept) an extension of their earlier plan to eliminate ALL untreated discharges by 2050

The Future?

Restructuring of the water companies?

Will the issues be forgotten after the next election?

Tough targets for 2030 – will we make them?

Tough targets stated for 2050 – will anyone take them seriously?

Can the water industry in the UK reverse the damage to its image?

Can we recruit the talent we need to do all that we need to?

We are living in 'interesting times' whether we like it or not

The New Zealand water industry is facing

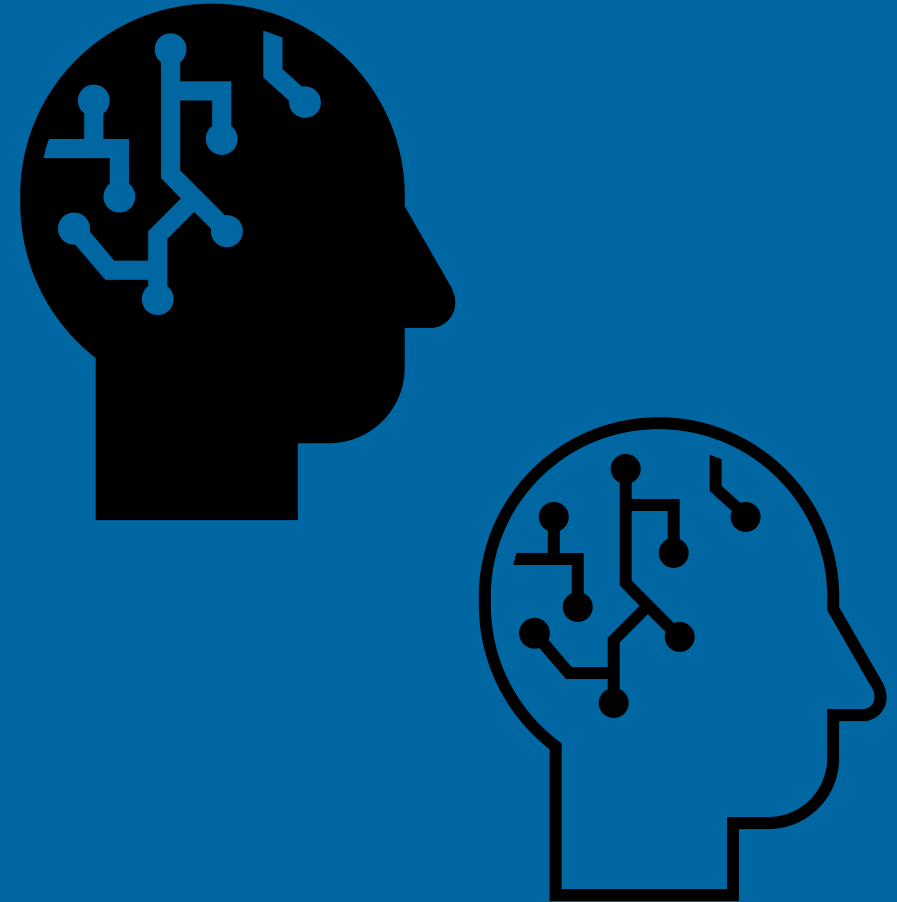
- Concerns about drinking water quality

- Concerns about river water quality

- Concerns about the structure of the industry

- Concerns about the availability of sufficient talent to meet the challenges

- Concerns about the impact of the election results



Two heads are better than one