

A GLIDE PATH FOR WATER REFORM – SCOTTISH WATER

Steve Finnemore – Harrison Grierson Consultants

Nicky Smallberger – Harrison Grierson Consultants

ABSTRACT

Previous papers have examined the history of the privatisation and reforms of the water industry in England and Wales. Drawing on the experiences and learnings which might be applicable to the New Zealand water industry.

This year we take the journey a step further to look at a country with many more similarities to New Zealand, the proud nation of Scotland. Like New Zealand, Scotland is a small country with a low population and an abundant water resource having similar populations and GDP.

Scotland's population density is 67.5/km², much closer to our own 16.8/km² than England's 407/km². The proportion of New Zealand covered by water is 1.6%, while Scotland's is 1.9%. As we are assessing a water industry on a similar scale and facing similar issues to our own, it is easy to draw parallels and take learning from their water reform journey.

Scotland took a very different approach to water reform than England and Wales, which may have been due to the political environment of the time and jurisdiction. The England and Wales water sector was privatised during the third term of the Conservative Thatcher Government. Water reform in Scotland was at the end of the first term of the Labour Blair Government and was following the levy of a Windfall Tax on privatized companies.

In 2002, a single publically owned water corporation was formed through the merger of the West, East and North Scotland Water Authorities. This statutory authority was named Scottish Water and is 100% owned by the Scottish Government.

Scottish Water operates in close consultation with the Scottish Government. National policy and guidance to the industry is provided by the Scottish Government through the "Quality and Standards" planning process. This process provides targets for improvements in the industry expressed as "Ministers' Objectives".

Funding for achieving the targets is provided through water rates and long term loans from the Scottish Government. Economic regulation is provided by The Water Industry Commission for Scotland (WICS) who establish the "lowest overall reasonable cost", benchmarked against the private water companies in England and Wales. The Drinking Water Quality Regulator for Scotland and the Scottish Environmental Protection Agency (SEPA) provide drinking water quality and environmental regulation.

Scottish Water has achieved similar drinking water quality and environmental performance gains as England and Wales as well as lifting customer service levels and at a lower cost to the consumer.

Key lessons are presented as New Zealand embarks on its own water reform discussion.

KEYWORDS

Water Reform, Regulation, Governance, Three Waters

1 INTRODUCTION

Water reform in Great Britain began in the mid 1980's and two very different reform pathways were adopted, mainly due to the political environment of the time in the jurisdiction in question.

Water services in England and Wales were corporatized in 1974 and privatized in 1989. Whereas in Scotland a very different approach was adopted with the formation of a Public Corporation of Water Services in 1996.

So why, in a “United Kingdom” did water reform have two very different outcomes in two jurisdictions. The answer is likely to be more to do with the political environment rather than local differences in the industry structure.

2 WATER REFORM IN ENGLAND AND WALES

Rationalization of the Water Sector in England and Wales began 1974 with the formation of the ten Regional Water Authorities (RWA), mainly based on major river basins. These ten RWA’s were responsible for integrated water management comprising water supply, wastewater treatment and environmental management, under the direction of a National Water Council.

However, during the turbulent economic period of 1970’s and 80’s Britain, the RWA’s suffered from under investment due to competing investment priorities from education, health, defence and social security.

As a result capital investment in the England and Wales Water industry fell from £3 Billion per year in the mid 1970’s to under £2 billion per year by the mid 1980’s (in 2005 prices)

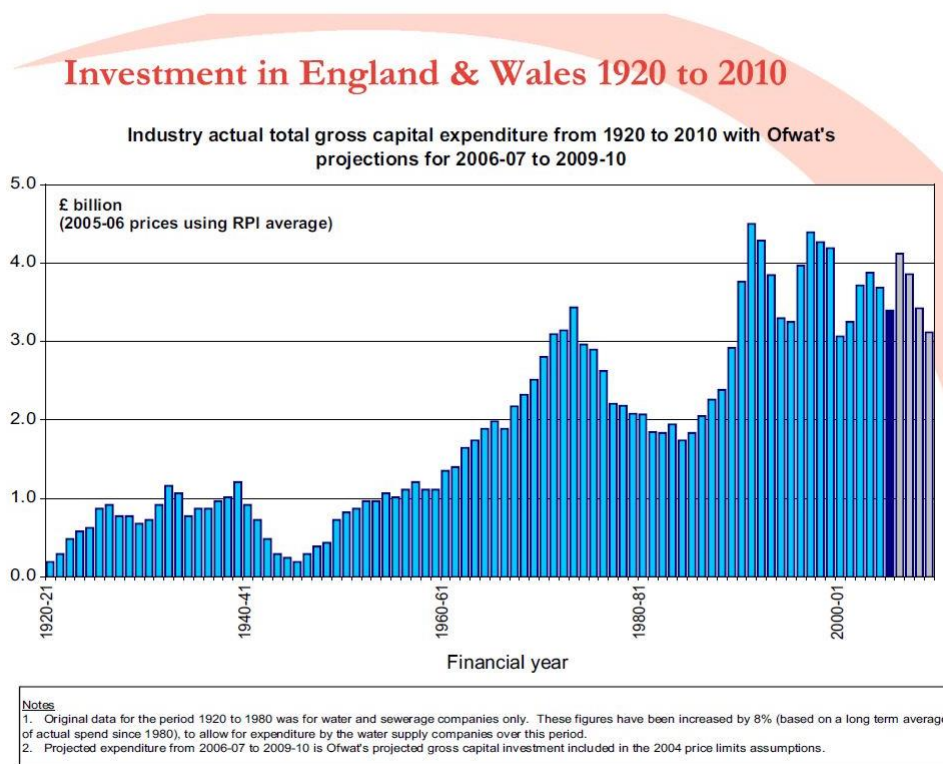


Figure 1: Investment in England and Wales 1920-2010

The landslide election of the Thatcher government in 1979 led to a significant change in the political landscape. The first Thatcher government was deflationary. Interest rates were increased to control inflation but this, combined with the North Sea oil bonanza, had an impact of increasing the value of the pound, reducing the competitiveness of the economy and thus resulting in the higher levels of unemployment – industrial production fell by nearly 25% by 1984. The second Thatcher government (1983-1987) embraced privatization with the sell off of state enterprises and utilities, starting with British Telecom and including BP, British Aerospace, British Gas, British Leyland, British Steel and Rolls Royce.

It was under the third Thatcher Government that further water reform was implemented which included the privatization of the RWA’s in 1989.

Following reform, the Ministry in charge of the entire industry; water, wastewater, agriculture, fisheries and the environment is the Department for Environment, Food and Rural Affairs (DEFRA). Regulation of the guidance provided by DEFRA is undertaken by three independent agencies, the Drinking Water Inspectorate

(DWI), The Environment Agency (EA) and the Water Services Regulation Authority (OFWAT), the economic regulator responsible for price control.

Water services are provided by the ten private water companies under 25 year concessions, with licenses issued by the Secretaries of State for Environment and for Wales.

2.1 IMPACTS OF REFORM

The impacts of Water Reform in the UK were widespread. The new industry structure provided clear guidance to the privatized water companies as to the investment priorities. Guidance is provided by the Secretaries of State via DEFRA, to the water companies to aid them in preparing a business plan for the forthcoming Asset Management Period (AMP). The guidance thus provides the Water Company and OFWAT the basis for negotiation the level of investment required and the water rates that would apply for the next 5 year AMP period. The guidance at each AMP period is to meet specific environmental and drinking water standards set by the Government / European Union, OPEX efficiency and levels of service expectations such as pressure, supply interruptions, water restrictions, flooding from sewers, complaints and resilience.

2.2 IMPROVED PERFORMANCE

Privatization of the water sector in England and Wales has led to significant private investment and that has in turn led to improved environmental and public health benefits.

- By 2005 (15 years), 99.96% of drinking water in England and Wales met the national and European standards for drinking water quality.
- By 2012, levels of leakage from the water supply network were 35% lower than the peak in mid 1990's.
- By 2013, 99% of measured bathing sites met the mandatory standards of the European Bathing Water Directive while 81.3% met the more stringent guidelines – up from 94% and 54% respectively in 2000.

So there is no doubt that the level of investment since 1989 has resulted in a significant improvement in performance and the UK is no longer the “dirty man of Europe”.

2.3 REFORM CHALLENGES

However, Water Reform in England and Wales has not been without challenges

The significant increase in water tariffs made privatization politically unpopular. Price limits set by OFWAT during AMP Price Review PR89 were 5% a year above the rate of inflation and between 1.5 - 4% a year above during AMP2 Price Review PR99 – and this was during a period of high general inflation!

It soon became evident that the price reviews negotiated between OFWAT and the individual water companies had been excessive, and enabled the companies not only to invest to meet the European Directives, but also gave them the financial strength to diversify into other activities (such as solid waste management) and other jurisdictions.

(£ real terms, 2006 prices, excluding general inflation)

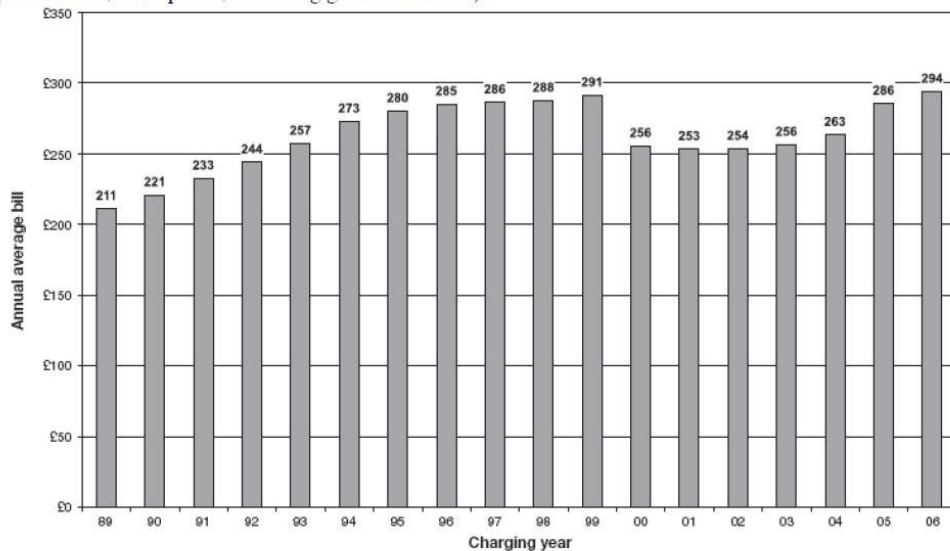


Figure 2: Average Annual Cost of Water 1989-2004 (Source: OFWAT 2006)

2.4 PRICE REVIEWS AND WINDFALL TAX

Given the significant increase in Water Rates as a result of the Price reviews in 1989 and 1994, combined with only a narrow conservative electoral majority in the 1992 election, there was increasing political pressure to address the perceived excessive profits of the water companies

As a result OFWAT develop a series of tools to improve the price review process including:

- More robust assessment of likely costs of water quality and environmental enhancements before Ministerial guidance was taken – indicative costs of the guidance was historically under estimated.
- Comparative Competition using a framework that had been established prior to privatization. This enabled OFWAT to challenge companies' bids/business plans at successive price reviews.
- Major consultation on systems of charging and tariff setting. Water companies offered unfavourable tariffs on volumetric charging, where standing charges were high, thus meters were unpopular. OFWAT and the water companies developed a fair tariff and customers in England began to switch to pay volumetrically, thus reducing demand and investment.
- Chairmen of the Customer Service Committees (CSC) took an active role in the price reviews reporting their views in published documents.

In 1997 Labour returned to power with a landslide majority and with a manifesto pledge to impose a windfall tax on all privatized utility companies to compensate for “soft” privatizations. Eighteen years of conservative government was at an end.

The 1999 Price Reviews involved a price cut of 12% followed by price stability (after adjustments for inflation) for the five year period from 2000 to 2005.

Price review 1999 effectively encouraged the water companies to focus on efficiency gains to maintain profits.

Despite the roller coaster of significant price rises, followed by reductions and then, more gradual inflationary increases, OFWAT claim that they have kept customer bills £100 per year lower than they would otherwise been, given high levels of investment necessary since privatization in 1989.

3 A GLIDE PATH FOR SCOTLAND

3.1 THE SCOTTISH POLITICAL ENVIRONMENT

Water reform in Scotland took a very different path to that of England and Wales, primarily due to political reasons.

In 1992, three years after privatization of the Water Authorities in England and Wales, the Secretary of State for Scotland published a consultation paper on water reform in Scotland. Consultation indicated a ‘deep seated antipathy’ to private sector involvement, with 94% (4834 responses) favouring a retention of public control and only 1% in favour of privatization.

A similar result was obtained following a postal ballot by Strathclyde Regional Council, with 97% of voters opposing plans to take water and sewerage services out of local government control.

So why was there such a different political climate?

Whilst the Thatcher government enjoyed a strong parliamentary majority in England, the Scottish Labour party dominated in Scotland, with local leaders being vocal about opposition to economic policies promoted by the UK Conservative government.

In 1979 when the Thatcher government swept to power in the UK, the conservatives held only 22 out of 72 seats in Scotland. By 1997, the conservative vote had dropped to 17.5% with no electoral seats. In contrast the Scottish Labour party vote increased from 41.5% (44 seats) 1979 to 45.6% (56 seats) by 1997, with Labour having a landslide majority in Westminster.

This political context explains why, under a now Labour government, privatization of the Scottish Water industry was effectively “off limits”. Not only was public opinion clearly opposed, but those running the water industry had no enthusiasm or motivation for change.

3.2 THE WATER LANDSCAPE

Scotland has a land area of 78,387km² and a population of approximately 5.3 million with a GDP of USD 45,000 compared to New Zealand with a land area of 268,021 km² (3.4 times the land area of Scotland) and a population of approximately 4.6 million with a GDP of USD 42,000. Thus whilst the populations are comparable, New Zealand has a significantly lower population density. Scotland is also water resource rich with 90% of all the UK inland water volume – it has 7 times the average UK water resource per head of population.

3.3 SCOTTISH WATER REFORM

Consolidation of the Scottish Water and Sewerage Services in Scotland began in 1975 with services becoming the responsibility of 9 regional and 3 island councils. Further consolidation occurred in 1996 when the responsibility for water and sewerage services was transferred to three Public Water Authorities (PWA). To ensure the interests of customers, a new body the Scottish Water and Sewerage Customers Council was formed, with powers to investigate customer complaints and also to approve the PWA charging schemes.

The Council was later dissolved and the Office of the Water Industry Commissioner for Scotland created in 1999.

In 2002, the three PWA’s were further consolidated into a single publically owned body corporate, Scottish Water. In 2005 the Office of Water Industry Commissioner for Scotland was replaced and the Water Industry Commission for Scotland (WICS) was established.

The WICS was responsible for price setting, with responsibility for final price determination (in the event of a dispute) with the competition commission and not the Minister. Thus, similar to England and Wales, price settling was the responsibility of an economic regulator (OFWAT in England and Wales and WICS in Scotland) and not with Ministers.

Also similar to the reforms in England and Wales, guidance on investment priorities was provided by Scottish Ministers (similar to the Secretary of States for the Environment of England and the Secretary of State for Wales in Wales). “Quality and Standards” is the planning process in Scotland by which improvements are set and cover improvements to:

- Drinking Water Quality
- The Environment
- Customer Service
- Enable New Connections
- Mitigate and adopt to climate change

A key difference to the England and Wales model is that whereas in England and Wales Ministers are only responsible for providing guidance under the policy framework, with the private water companies (and shareholders) responsible for funding, in Scotland the Ministers have all three roles policy, shareholder and financier.

As the Scottish Government sets funding, this means that in Scotland, Ministers tend to take a broader view of the role of water to the economy - a 30+ year horizon, rather than being more focused on the 5 year AMPs in England and Wales

3.4 COMPETITION

Whilst Scottish Water is publically owned entity, competition was introduced in the non-household retail market in 2008. Competition in the household market was not introduced on public health grounds associated with “Common Carriage” of water supplies. Scottish Water remained the monopoly wholesale supplier with licensed entrants being able to offer retail services to non-household customers. To ensure a level playing field for new entrants, Scottish Water had to separate its non-household retail operations from all other activities.

By 2012, five retailers were active in the non-household market.

It is difficult to understand the true gains that retail competition has delivered. Whilst there have been cost savings by the suppliers (both operating and financial) these costs are off-set by the ongoing costs of operating in a competitive retail market – such as the cost of a Central Market Agency (which acts as a clearing house for customer data including registrations, quantities supplied and charges) and the additional cost of market oversight by the WICS.

So whilst a few non-household customers may have benefited from modest price reductions, the main benefit has been improved engagement with their water supplier and improvements in billing arrangements.

3.5 OUTCOMES

The Water Industry Commissioner for Scotland claims that in 2013/14 the average household bill in Scotland was £50 lower than in England and Wales.

Table 1: Comparison with English and Welsh water companies based on OFWAT published average charge

WATER AND SEWERAGE COMPANIES	AVERAGE HOUSEHOLD BILL 2015/16
South West	£482
Wessex	£460
Welsh	£435
United Utilities	£411
Southern	£410
Anglian	£402
England & Wales Average	£385
Northumbrian	£371
Thames	£367
Yorkshire	£360
Scottish Water	£346
Severn Trent	£329

By reducing its running costs, Scottish Water now operates as efficiently as the private water and sewerage companies in England and Wales, and that customer care has improved as well.

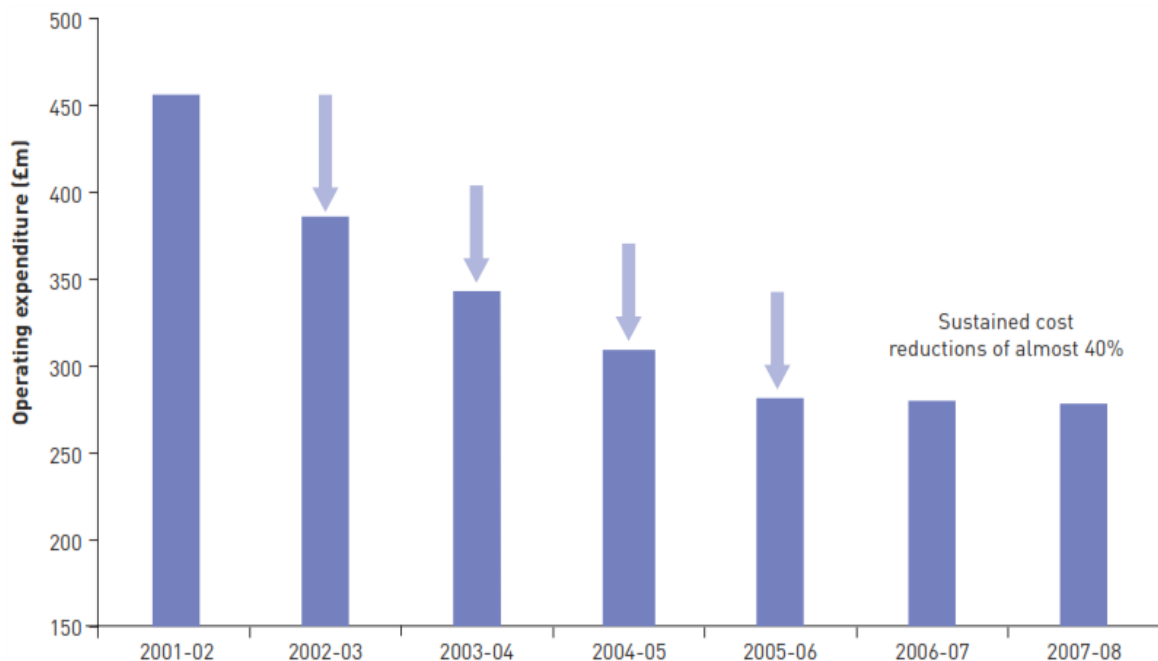


Figure3: Scottish Water – Cost Reductions

Since Water Reform in 2002 and the significant investment that followed, there have been significant gains in environmental and public health benefits.

- By 2008 operating cost have been reduced from £460million to £268 million, an almost 40% reduction.
- By 2012, 99.88% of drinking water quality samples complied with the quality standards.
- By 2013, leakage has been reduced to 575MLD from 1146 MLD in 2002, a reduction of 50%
- By 2013 the number of wastewater treatment plants failing to meet the relevant UK and EU standards has been reduced from 78 to 2 out of a total of 1800.
- By 2014 the number of bathing waters meeting the mandatory bathing water quality standard has also increased from 31 out of 60 (51% compliance) to 71 out of 83 (86% compliance).

There has been over £1 billion in environmental control measures alone since 2002 and a further £600 million is planned between 2015-2021. Total investment is running at £500 million.

4 OPPORTUNITIES FOR NEW ZEALAND

Water reform can take many forms, and it is interesting to compare the institutional structures in England and Wales, with those in Scotland and New Zealand.

Table 2: Institutional Structures in England & Wales compared to those of Scotland and New Zealand

	ENGLAND & WALES	SCOTLAND	NEW ZEALAND
Guidance			
Drinking Water	DEFRA	Scottish Government	Ministry of Health
Environment	DEFRA	Scottish Government	Ministry for the Environment Ministry for Primary Industries
Regulator			
Drinking Water	Drinking Water Inspectorate	Drinking Water Regulator for Scotland	Drinking Water Assessors (DHB)
Environment	Environment Agency	Scottish Environmental Protection Agency	11 Regional Councils and 5 Unitary Authorities
Price	OFWAT	WICS	District Councils, Unitary Authorities and CCO (50+ in total)

As is evident from the above table, the water industry in New Zealand is fragmented compared to England and Wales and Scottish Water industries, both in terms of guidance and regulation.

4.1 INDUSTRY GUIDANCE

Local Government and Water Sector reform in New Zealand has been on the agenda for a number of years. The Auckland “Supercity” with an enlarged Watercare Services Limited was created in November 2010 and other local government areas such as the Waikato and Wellington are currently assessing the benefits of closer integration.

In some areas, guidance on investment is clear.

The Ministry of Health provided clear guidance on the prioritization of investment for compliance with the Drinking Water Standards in the Health (Drinking Water) Amendment Act 2007, with large supplies (10,001 or more) to be compliant by 1 July 2012, medium supplies (5,001 – 10,000) by 1 July 2013, minor supplies (501 – 5,000) by 1 July 2014 and small supplies (101 – 500) by 1 July 2015. This was a good example of staged compliance, albeit the cost of compliance was not fully understood.

In environmental control measures, good progress has been made by the Land and Water Forum and the Ministry of Environment in developing the National Policy Framework for Freshwater Management (NPS-FM 2014) which became effective 1 August 2014. The NPS-FM 2014 requires Regional Councils to recognise the national significance of freshwater and to:

- maintain or improve the overall quality of fresh water within a region
- manage freshwater bodies such that ecosystem processes, indigenous species and people's health is safeguarded
- require more efficient use of fresh water by end users and avoid the over allocation of water takes and inputs of contaminants, and to phase out existing over allocation
- set freshwater objectives and set limits (e.g., a total catchment contaminant-load or a total rate of water take) to meet community and tāngata whenua values which include the compulsory values of ecosystem health and human health for recreation
- take a more integrated approach to managing fresh water and coastal water
- fully implement the National Policy Statement by 2025.

These examples of long term guidance on drinking water, freshwater environmental control measures assist all industry stakeholders to gear-up to address the priority investment areas. However a single body, such as DEFRA in England and Wales, would ensure a holistic and managed approach in all areas of the water sector including environmental standards of coastal waters, reducing the frequency and risks of flooding, increasing service level performance and resilience and addressing the public health issues in un-reticulated communities.

So whilst the provision of guidance to the water industry in New Zealand is heading in the right direction, the fragmented structure may be a barrier to providing a clearer and more holistic glide path of where the industry needs to be in 10, 15 or 30 years from now.

4.2 PRIVATE OR PUBLIC?

If similar gains to that achieved in the UK are expected in New Zealand, a similarly robust funding source will be required which is isolated from the political electoral and economic cycles.

Whilst OFWAT claims that privatization has been a success in England and Wales, attracting huge investment from the private sector, which has enabled gains in drinking water standard compliance and also with the Bathing Water and Urban Wastewater directives, it was not without its challenges.

Privatization was considered 'Soft' resulting in large profits for the water companies which was then clawed back via a windfall tax and Price Review 99 with a 12% drop in water rates.

Scottish Water claims that the formation of a single publically owned water company has achieved similar health and environmental performance at a lower cost than England and Wales!

4.3 LESSONS FOR REFORM

So what are the lessons for New Zealand? Ian Byatt, the first Director General of Water Services (OFWAT), advises;

- Regulation should start with high level principles.
- The goal of the total regulatory system should be the improvement of the water and environmental quality to the benefit of customers.
- Given improved performance will require investment and thus higher prices an economic regulator needs to focus on customer protection and promotion of efficiency.
- The economic regulator must be independent from politicians – a clear separation of powers
- Politicians (Governments) should set outcomes (guidance) and not delve into implementation
- Transparency is key and consistency a virtue. Regulators must adapt to change but must constantly explain what they are trying to achieve such that changes are somewhat predictable.
- Once the operating environment has been set by the regulators (water, environment and economic) the supplier(s) should then be trusted to deliver services to the customer.

5 CONCLUSIONS

As an industry, long term guidance on drinking water quality, environmental objectives and service level expectations with regard to such areas as leakage, sewer flooding and resilience will ensure all stakeholders can gear up to address the priority investment areas.

Improved integration of the regulatory authorities will ensure consistency in the approach to developing environmental consent conditions (in line with environmental bottom lines) and subsequent assessments for both environmental compliance and drinking water grading's.

Finally, funding and economic regulation needs to ensure that there is sufficient long-term funding that is independent of political influence (including election cycles) to achieve the gains in the prioritized investment areas for both rural and metropolitan stakeholders.

ACKNOWLEDGEMENTS

Nicky Smalberger – Harrison Grierson

Rob Scarrott – South West Water

REFERENCES

Scottish Water Performance 2013-14 - Water Industry Commission for Scotland

Annual Return 2002-03 - Scottish Water

Annual Return 2013-14 - Scottish Water

The Regulation of Water Services in the UK - Ian Byatt

From a private past to a public future – the problems of water in England and Wales – D Hall and Emanuele Lobina

The introduction of competition into Scottish Water Industry - John W Sawkins

The Water Industry in Scotland – Bob Irvine