Independent Economic Impact Report - Scottish Water

By 4-consulting

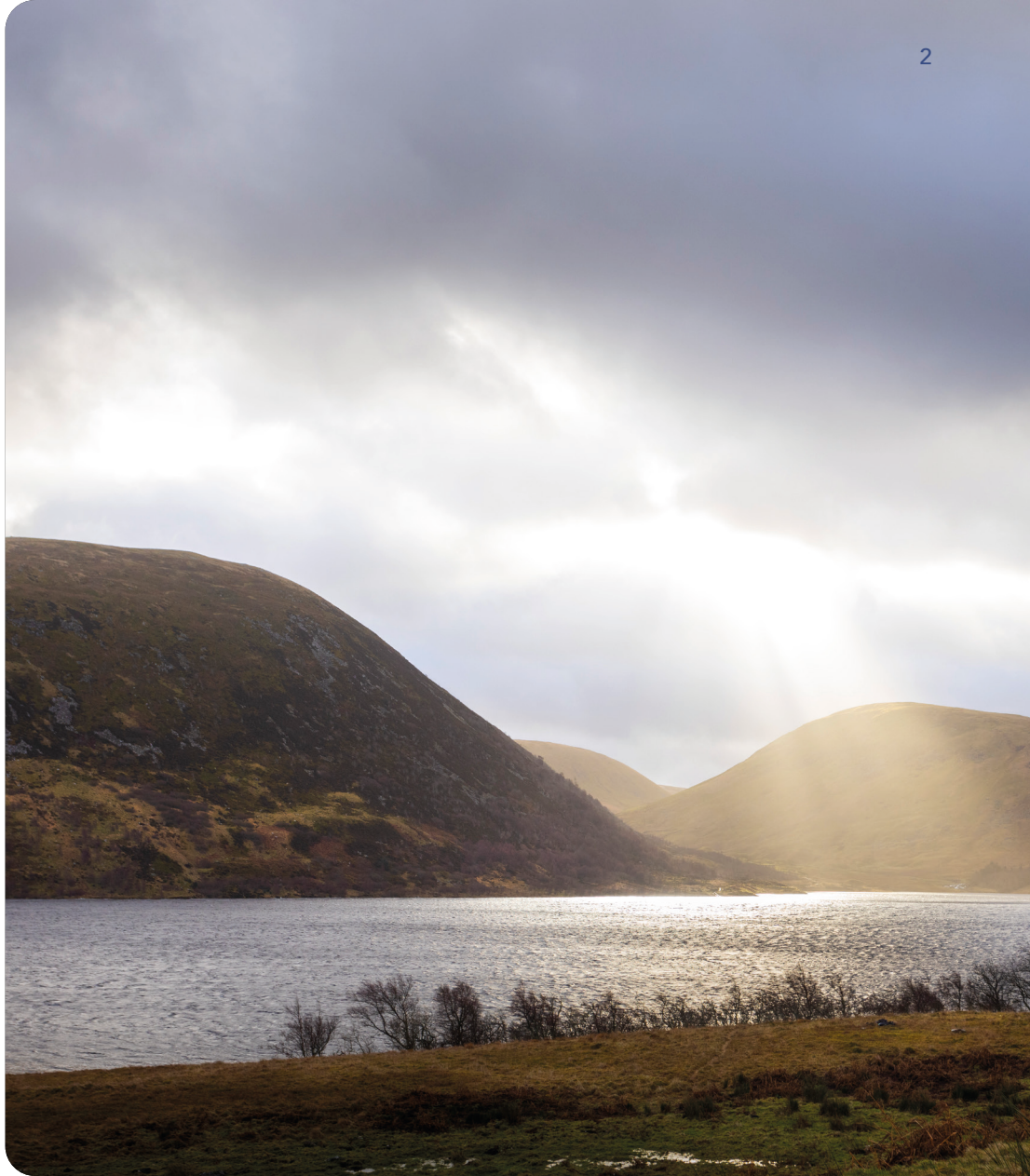
4 consulting

Overview

Scottish Water appointed 4-consulting to undertake an independent assessment to understand its impact on Scotland's economy and employment.

The impact was calculated using Scottish Water's 2024/25 financial and procurement data and applied to the Scottish Government's macroeconomic impact model to show Scottish Water's economic footprint across Scotland's economy in terms of economic output, jobs, and wages. This report outlines the initial assessment along with supporting case studies.

Richard Marsh is an economist and Director of 4-consulting based in Scotland. He is an elected Fellow of the UK's Royal Statistical Society and a member of the Scottish Government's expert group advising on economic accounting, impact modelling and economic statistics.



Scottish Water: Investing in Scotland, for Scotland

Scottish Water is one of the largest infrastructure investors in Scotland and its focus on creating dependable local jobs and supporting local businesses means it has a major impact on the Scottish Economy.

From applying the procurement and financial data to the Scottish Government's macroeconomic impact model, Scottish Water now understands that:

21,000 SCOTTISH WATER SUPPORTS THE EMPLOYMENT OF AROUND 21,000 PEOPLE DIRECTLY AND INDIRECTLY

SCOTTISH WATER GENERATES £4.5BN ANNUALLY FOR SCOTLAND'S ECONOMY **£4.5BN**

SCOTTISH WATER SUPPORTS HIGH-VALUE JOBS IN ENGINEERING, DATA AND TECHNOLOGY

4X JOBS EACH DIRECT JOB SCOTTISH WATER CREATES **SUPPORTS 4,** MORE THAN THE SCOTTISH OIL, GAS AND POWER SECTORS (PER SCOTTISH GOVERNMENT MULTIPLIERS)

WATER INDUSTRY JOBS ARE CONCENTRATED IN TWO OF SCOTLAND'S MOST DEPRIVED AREAS:

GLASGOW
(55% IN MOST DEPRIVED SIMD 1–2 COMMUNITIES)

HIGHLANDS
(62% IN MOST DEPRIVED SIMD 1–2 COMMUNITIES)

NEARLY 90% OF SCOTTISH WATER'S DIRECT SUPPLY CHAIN SPENDING IS WITH COMPANIES OPERATING IN SCOTLAND*

£3 VALUE FOR EVERY £1 SCOTTISH WATER INVESTS £3 OF VALUE IS CREATED

INCREASED BY 23% THE MULTIPLIER EFFECTS OF SCOTLAND'S WATER INDUSTRY HAVE INCREASED BY 23% OVER THE LAST 10 YEARS COMPARED TO:
+3% GAS; -6% ELECTRICITY; -17% CONSTRUCTION; -19% OIL & GAS (EXTRACTION)

* There are multiple levels of suppliers between Scottish Water and the source of raw materials like steel and electronics used, which can span many countries.

CASE STUDY:
Scottish Water boosting STEM careers

Scottish Water directly employs more than 4,800 people with significant opportunities arising each year for people to start or progress their careers with Scottish Water including engineers, scientists and technology professionals. The latest Public Sector Equality Duty Report (2021-2025) shows nearly 300 Scottish Water apprentices and graduates on structured training programmes in 2024. As a Platinum Investor in Young People, Scottish Water is committed to creating opportunities that develop the workforce of tomorrow.

Scottish Water has an education programme, Generation H_2O, focused on inspiring responsible water citizens and raising the awareness of careers at Scottish Water. Since launch in September 2023, nearly 950 teachers have registered and over 58,500 young people have been engaged through lessons. Through the programme, Scottish Water sponsors a 'Water Cycle' workshop at Aberdeen Science Centre for P5-7 focused on key STEM skills.

The workshop was delivered to 265 pupils and 10 community outreach workshops to under-represented groups and deprived areas.

Scottish Water draws on STEM skills across its operations including digital, data & technology, science & the environment, and construction & engineering. Additionally, the Women in Scottish Water (WiSW) network is championing and inspiring girls and women to pursue a STEM career.

Scottish Water Modern Apprentice in Project Management, Cameron Clark, age 25, was named the Net Zero Scottish Apprentice of the Year and winner of the Scottish Pipeline Industries Guild Professional Development Network Annual Paper and Presentation Competition.

Cameron's winning presentation "Harnessing Green Energy from Non-Operational Reservoirs and Pipelines" showed how redundant Scottish Water infrastructure is being repurposed to generate renewable energy.

On winning the award Cameron said "Winning this award is absolutely incredible. I've had the chance to work on projects that genuinely make a difference, and it's been fantastic to see the impact first hand. Being part of Scottish Water's sustainability efforts has been a real privilege, and I'm excited to keep pushing forward."

Scottish Water scientists, engineers and technology professional continue to work with our STEM focused suppliers and partners (including universities) to innovate new technologies and solutions. For example, Scottish Water's STEM resources are supporting Scotland's Low Carbon Concrete Collective (LCCC) which includes Scotland's main utilities companies and leading construction materials manufacturers. The LCCC is spearheaded by Scottish Water and aims to accelerate the development and adoption of low carbon concrete solutions in Scotland.

£4.45bn
TOTAL ECONOMIC IMPACT - SUPPLY CHAIN AND EMPLOYEES

21,120
JOBS SUPPORTED ACROSS SCOTLAND'S ECONOMY

TABLE 1:

Wider economic impact through supply chain and employees

Impact	Output £m	Gross Value Added £m	Income £m	Employment (Jobs)
Direct	£2,100	£600	£285	4,850
Procurement	£2,116	£985	£565	14,160
Workforce spending	£229	£125	£75	2,110
Total	**£4,445**	**£1,710**	**£925**	**21,120**

Source: Scottish Water (2024/25))

Scottish Water's procurement of goods and services was nearly £1.5 billion, nearly 90% of Scottish Water's direct supply chain spending is with companies operating in Scotland. Scottish Water's suppliers generated a further £0.8 billion turnover through their own supply chains with a total procurement impact of £2.1 billion and 14,000 jobs across Scotland's economy 2024/25. The income paid to Scottish Water workers supports an additional £229 million turnover and 2,110 jobs through high street spending.

Scottish Water's work running more than 2,000 water and waste water assets is capital intensive. It generates significant impacts cultivated through lengthy supply chains especially with Scotland's construction, engineering and technology industries.

Due to its major economic footprint, Scottish Water works with suppliers operating in Scotland on innovative engineering solutions and creates jobs in remote and rural communities. The following case study demonstrates the impact of Scottish Water's supply chain and driving innovation.

CASE STUDY:
Driving innovation, growth and job creation in communities across Scotland

Howden Water Treatment Works near Selkirk was upgraded as part of Scottish Water's multi-million investment to improve the water supply in the Scottish Borders. The work was led by the engineering firm RSE, headquartered in Muir of Ord in the Highlands, which employs over 2,000 people across the UK.

RSE's work to upgrade the Howden Water Treatment Works included support from Ecosystems Technologies a small company headquartered in Dingwall. RSE with Ecosystems Technologies introduced the world's first timber-housed chemical dosing system for the water sector, the Timber Modular Build (TMB). The TMB provides a sustainable alternative to carbon-intensive materials, can be built more rapidly and are fully recyclable.

Timber sourced from Scottish Water's forestry has helped exceed the carbon reduction expectations of the TMB. The TMB's are fitted out off-site at RSE's Dalgety Bay facility in Fife.

One of the first TMB kiosks to be developed and produced by RSE was delivered to Howden Water Treatment Works. Scottish Water is commissioning multiple TMB systems and RSE won the 2024 Accelerate to Zero Gamechanger award for developing the product.

This shows Scottish Water's significant economic footprint working with groups of Scottish based suppliers on award-winning innovative engineering solutions and creating jobs in Scotland's remote and rural communities.

"We are delighted to be working alongside RSE to reduce the carbon associated with our capital programme through these innovative timber kiosks. Kiosks are an essential part of many of our sites, housing chemical dosing equipment and have traditionally been made from glass reinforced plastic.

RSE has managed to develop an approach that makes use of fully recyclable materials and cuts the embodied carbon associated with these structures by almost 75%, while reducing lead in times and allowing for offsite construction.

The fact that we were able to supply timber for one of the kiosks is a bonus."

Ian Watt, Scottish Water's Beyond Net Zero Delivery Manager

THE ECONOMIC IMPACT OF SCOTTISH WATER IS **EQUIVALENT TO HOSTING TWO COMMONWEALTH GAMES EACH YEAR**

Scale of impact

To put into context, the Scottish Government completed an economic impact assessment of hosting the 2014 Commonwealth Games. This showed that the 2014 Commonwealth Games sustained 2,100 jobs (annual average), £740 million Gross Value Added (GVA) (around £1 billion in current prices) and £700 million in tier 1 contracts (76% awarded to Scottish businesses).

The economic impact of Scottish Water is equivalent to hosting two Commonwealth Games each year, with several times the number of jobs created.

THE MULTIPLIER EFFECTS OF SCOTLAND'S WATER INDUSTRY HAVE INCREASED BY

23%

Making an outsized contribution

The Scottish Government publishes detailed accounts of the economy each year covering nearly 100 industry sectors. These accounts show how the sectors purchase (and sell) with each other and with businesses outside of Scotland.

The Scottish Government also publish the multiplier effects for each industry - these show for every pound of sector turnover how many additional pounds are sustained across the rest of Scotland's economy through supply chains and sector workers spending their money in Scotland.

The multiplier effects across most of Scotland's industry sectors have fallen over the last ten years. Across the economy Scotland's supply chains have gradually stretched across the world reducing the turnover sustained by supply chains.

Scotland's water and waste water sector is a notable exception.

The supply chain impacts have strengthened over the last ten years reflecting Scottish Water's focus on establishing partnerships within Scotland with construction, engineering and technology companies.

A focus on supporting and nurturing domestic suppliers is a key pillar of Scotland's Community Wealth Building and Inclusive Growth agendas.

The multiplier effects of Scotland's water industry have increased by 23% over the last ten years compared to:

- An increase of +3% for the gas sector
- A fall of -6% for the electricity sector
- A fall of -17% for the construction sector
- A fall of -18% for the telecoms sector
- A fall of -19% for the oil & gas (extraction) sector

SCOTTISH WATER'S EMPLOYMENT MULTIPLIER
4.3

GAS DISTRIBUTION SECTOR MULTIPLIER
4.1

ELECTRICITY PRODUCTION SECTOR MULTIPLIER
3.1

The water industry's focus on domestic purchases has increased the impact on Scottish suppliers and the Scottish Government data also suggests these impacts are increasingly distributed across higher value-added activities. The Scottish Government measurement of multiplier effects for GVA suggests a movement towards higher value-added activities embedded in supply chains including engineering, data and technology.

Scottish Water has an employment multiplier of 4.3. This sits ahead of the Scottish Government's measurement of multiplier effects for Scotland's gas distribution sector (4.1) and electricity production sector (3.1) which both represent some of the highest employment multipliers in Scotland's economy.

The economic impact set out as above includes turnover supported across Scotland's economy of £2.1 billion through Scottish Water's procurement.

This includes over £1 billion and 7,100 jobs sustained across Scotland's construction industry. A further 610 jobs were sustained across architectural and engineering companies based in Scotland. A breakdown of the top ten sectors of procurement spend impact can be found in Table 2.

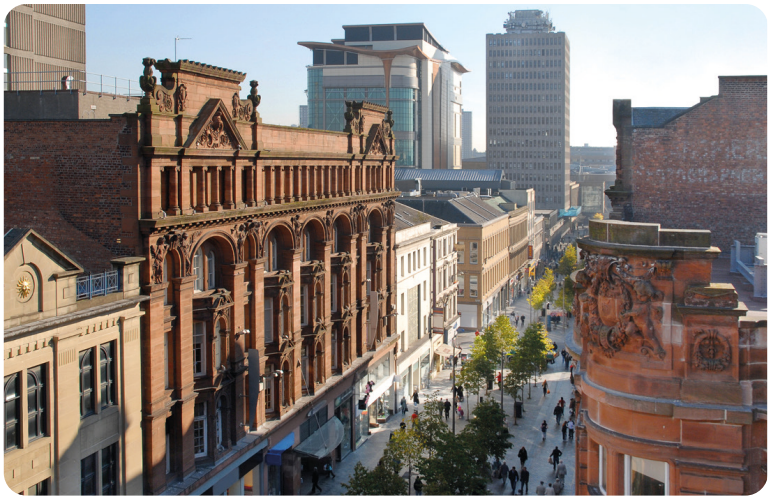
TABLE 2:

Top ten sectors of Scottish Water procurement spend impact

Top Ten Sectors	Output £m	Gross Value Added £m	Income £m	Employment (Jobs)
Construction	£1,028	£415	£237	7,100
Water & sewerage	£141	£79	£22	500
Architectural & engineering	£89	£49	£30	610
Waste & remediation	£58	£25	£13	150
Electricity	£48	£16	£5	60
Computer services	£47	£33	£24	370
Retail	£40	£27	£19	670
Telecommunications	£39	£26	£14	250
Machinery & equipment	£37	£16	£10	120
Wholesale	£36	£18	£11	210

Improving lives and livelihoods

In two of Scotland's most significant areas suffering from deprivation; Glasgow (economic deprivation) and the Highlands (accessibility deprivation), the water and waste water sector make a significant contribution to communities suffering from deprivation by providing jobs in those areas.



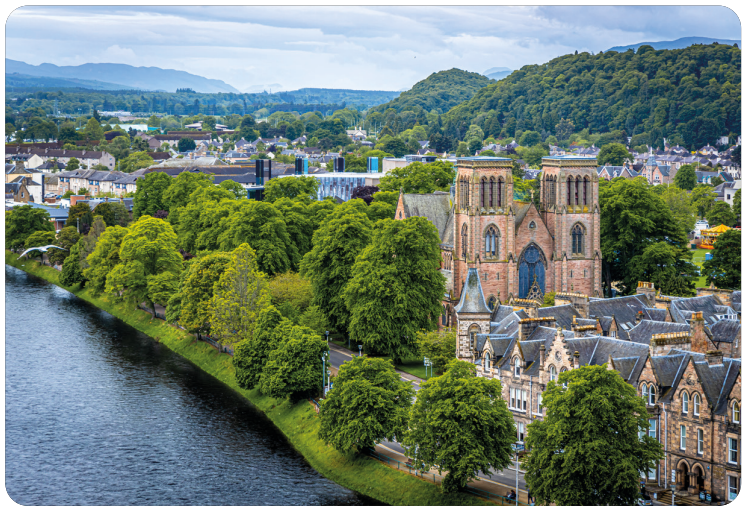


TABLE 3:

Water industry employment by Scottish Index of Multiple Deprivation (SIMD)

SIMD	Glasgow	Highlands
SIMD 1 & 2 (most deprived)	55%	62%
SIMD 3-5 Other	45%	38%
Total	**100%**	**100%**

Source:
Business Register & Employment Survey 2023 (BRES)

CASE STUDY:

New waste water treatment works is award winning in sustainability

Scottish Water, along with ESD, Royal Haskoning and its UK licence partner EPS UK have won the prestigious Royal Academy of Engineering Major Project Award for Sustainability 2025 for its new waste water treatment works in Winchburgh in West Lothian – one of Scotland's fastest growing communities.

The award recognises a team that has played a critical role in a major engineering project that has had a substantial impact on society and sustainability.

Winchburgh Waste Water Treatment Works replaced an ageing works, which had come to the end of its operational life. The £35 million state-of-the-art treatment plant will support an expected four-fold increase in the town's population over the coming years.

The new site uses state of the art Nereda technology (only the second site in Scotland to use this) which uses microorganisms that occur naturally in sewage and waste water to break down organic pollutants, to allow all stages of treatment to take place in a single tank.

This means more waste water can be treated faster and with less chemicals, in a smaller site area and with a much-reduced carbon footprint – the process reduces energy usage by up to 50% compared with alternatives.

Winchburgh has grown from around 2,000 people in 2001 to an expected population of almost 15,500 people by 2035. Scottish Water developed a plan that would meet the rising demand for waste water treatment while reducing carbon emissions as part of its commitment to investing in low carbon innovation to improve its services, support housing and economic growth, and protect Scotland's environment.

Active throughout Scotland, ESD is a joint venture business focused exclusively on the design and delivery of high quality fresh water and waste water projects for Scottish Water.

ESD was founded in 2015 as a joint venture between Binnies, Galliford Try and MWH Treatment and currently has around 350 highly skilled professionals in the team.