ENERGY & UTILITY SKILLS

Workforce demand estimates – 2026 to 2032
Water and Sewerage

Summary report
November 2026



Workforce demand estimates – 2026 to 2032

Water & Sewerage

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Water and Sewerage 2026 – 2032

Skills to deliver the UK's future

ENERGY & UTILITY SKILLS

Turning workforce evidence into action for a resilient water and sewerage sector.

Our ambition
A resilient water and sewerage sector that keeps the UK healthy, supports growth and protects the environment.

Our Growth
Creating jobs, skills and investment to deliver vital infrastructure across the UK.

Our Opportunity
Good careers. Stronger communities. A cleaner, greener future.

Research
Trusted evidence for action renewed every two years.

Core requirement of **40,000** **people by 2032**

43% of the current workforce

Robust workforce evidence to guide investment and delivery.

- Credible, transparent forecasts and methodology.
- A consistent framework for monitoring industry progress and the accuracy of our forecasts.
- Insight across sub-industries, geographies, skill levels and occupations.

Trusted insights to inform decisions today and tomorrow.

Attract
Bring new people into the industry.

We forecast **25,000** **new jobs by 2032**

27% growth in total employment

That's around **3,600** new jobs each year.

- More apprenticeships and training opportunities.
- A diverse and inclusive workforce.
- Rewarding, meaningful careers.

Attracting new talent is essential to deliver a safe, reliable and resilient water and sewerage sector.

Develop
Grow skills and embrace new technology.

Core requirement of **10,500** **at RQF 3/SCQF 6 by 2032**

52% of the current workforce

Split across 5,400 in technical occupations and 5,100 in business support occupations.

- Increase productivity through innovation and technology.
- The adoption of AI and automation could reduce the core requirement by up to 1,540 people.

A more productive, higher skilled workforce that can deliver more.

Retain
Keep and develop our talented people.

We expect **15,000** **retirements by 2032**

That's **16%** of today's workforce – around **2,100** people each year

- Improve job quality, health, safety and well-being.
- Create clear career pathways and progression.
- Through continuous improvement in workforce retention the industry could mitigate the effect of normal staff turnover by up to **20,000 people**.

Retaining our people protects expertise, builds stronger teams and keeps the sector moving forward.

Real economic impact. Stronger communities.

Growth as a % of current workforce

Scotland = **37%**
Wales = **31%**
England = **26%**
Northern Ireland = **21%**

25,000 new jobs could create **£1 billion** of additional earnings.

By 2032, total GVA could reach between **£17 billion** and **£25 billion.**

1 About this report

1.1 Introduction

1.1.1 This report is one in a series that contain current workforce estimates and forecasts for the number of new jobs and people required across the UK energy and utilities sector between 2026 and 2032 inclusive, including:

- **Energy and utilities sector** (containing the aggregate analysis from across all six industries of the sector)
- **Community & domestic low carbon technologies** (including community and district heating, and the installation and repair of domestic gas boilers, heat pumps, smart meters, solar PV and battery storage and EV chargepoints)
- **Electricity networks** (including electrical equipment manufacturing, construction and installation, operation and maintenance and the trade of electricity)
- **Gas networks** (including the manufacture, distribution, construction of gas utility projects and retail trade of gas through the networks)
- **Power generation** (including thermal power and clean energy technologies)
- **Waste and recycling** (including the collection, treatment, disposal and recycling of waste)
- **Water and sewerage** (including the collection, treatment and supply of water; sewerage; the construction of water assets)

1.1.2 This report focuses on the UK's water and sewerage industry, which includes:

- Water collection, treatment and supply
- Sewerage
- Construction of water utility projects

1.1.3 This industry is defined by a series of Standard Industrial Classifications, which can be found in Annex 2.

1.2 From workforce evidence to strategic action

1.2.1 This report provides a factual estimate of the workforce required by the UK Water & Sewerage industry between 2026 and 2032. Its central purpose is to identify the gap between the number and mix of people the industry will require and the workforce available to meet that requirement.

1.2.2 The findings support the four pillars of the Energy and Utilities Skills Strategy 2025-2030[1] in distinct ways:

- **Research** provides the definitions, evidence, methodology and update cycle that make the estimates credible
- **Attract** identifies the core requirement for additional jobs and replacement of people retiring from the workforce
- **Develop** considers how productivity, artificial intelligence, automation and new working methods could reduce or reshape that requirement
- **Retain** shows how movement out of the industry could increase the number of new people who must be recruited.

1.2.3 These pillars are not separate forecasts. **Attract** provides the central workforce requirement, while **Develop** and **Retain** test the factors that could move it. **Research** establishes the credibility of the forecasts.

[1] https://euskills.co.uk/about/our-strategy/

2 Industry headlines

Figure 1: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032

Sub-Industry	Total employment		New jobs created		Retirements		Core requirement for people		
	2025 baseline	2032	Number	% Growth	Number	% of current workforce	Total	% of current workforce	Average per year
Water collection, treatment and supply	55,900	65,900	10,000	*18%*	8,100	*14%*	18,100	*32%*	2,600
Sewerage	30,600	35,600	5,000	*16%*	5,000	*16%*	10,000	*32%*	1,400
Construction of Water Utility Projects	5,500	15,500	10,000	*183%*	1,900	*35%*	11,900	*218%*	1,700
Water & Sewerage	**92,000**	**117,000**	**25,000**	*27%*	**15,000**	*16%*	**40,000**	*43%*	**5,700**

Note: Figures may not sum to the grand total due to rounding.

2.1 Attract: The core workforce requirement

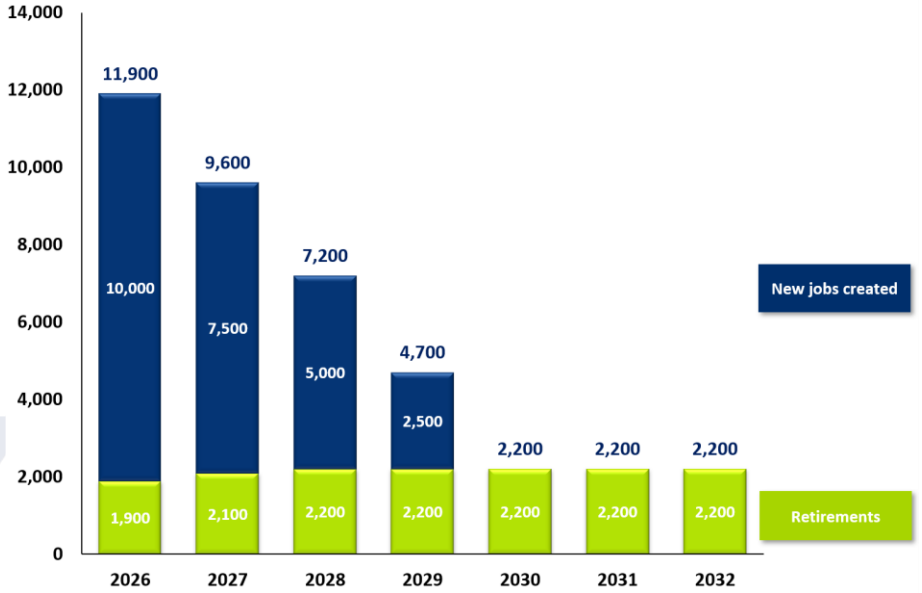
2.1.1 The Water & Sewerage workforce is forecast to grow from 92,000 to 117,000 in 2032 – an increase of 25,000 people, or 27%

2.1.2 In addition, there will be approximately 15,000 retirements from the workforce, equivalent to 16% of the workforce leaving.

2.1.3 The total core requirement for people between 2026 and 2032 is forecast to be 40,000, equivalent to 43% of the current workforce – 5,700 people per year.

2.1.4 For this analysis we have front-loaded the new jobs created, with all new creation occurring before the end of AMP8. The annual number of retirements increasing slightly between 2026 and 2028, before remaining constant through to 2032.

Figure 2: Core requirement for people by year and cause



Note: Figures may not sum to the grand total due to rounding.

2.2 Develop: Potential impact of artificial intelligence and automation on 'At Risk of Reduction' occupations

2.2.1 Section 3 below systematically assesses how artificial intelligence, automation and associated technologies might affect workforce demand across individual occupations. It applies low, medium and high adoption scenarios across seven dimensions of technological adoption and classifies each occupation according to whether workforce demand is *At Risk of Reduction, Significantly Impacted, Augmented* or subject to *Limited Impact*.

2.2.2 The following occupations are *At Risk of Reduction* in their core workforce requirements as a result of these new technologies:

- 71 - Sales Occupations
- 72 - Customer Service Occupations
- 41 - Administrative Occupations
- 42 - Secretarial and Related Occupations
- 92 - Elementary Administration and Service Occupations
- 34 - Culture, Media and Sports Occupations
- 62 - Leisure, Travel and Related Personal Service Occupations

2.2.3 Together, these occupations have a core requirement of 7,700 people by 2032, equivalent to 19% of the overall core requirement. This identifies the part of the forecast most exposed to potential workforce demand reduction; it does not imply that the core requirement for people by 2032 could be reduced by 7,700.

2.2.1 Our analysis indicates that the potential impact of AI and automation on the *At Risk of Reduction* occupations (listed in paragraph 2.2.2 above) could be:

- 230 people under the low adoption scenario (equivalent to a reduction of up to 3%)
- Between 310–770 under the medium adoption scenario (equivalent to a reduction of between 4% to 10%)
- Between 850–1,540 under the high adoption scenario (equivalent to a reduction of between 11% to 20%)

2.2.2 These are illustrative sensitivity assumptions rather than forecasts of job losses.

2.2.3 Section 3 presents the detailed occupation-level assessment under each adoption scenario, with the full analytical framework set out in Annex A2.4.

2.3 Retain: Replacement demand sensitivity

2.3.1 In addition to the core requirement for people based on new jobs created and retirements, we must consider the extent to which people might leave the workforce in order to take up employment in other sectors of the economy (or move overseas).

2.3.2 For this analysis we have not included any vacancies that may be created by one person leaving their job in the Water & Sewerage industry and taking up another position within the same industry.

2.3.3 As detailed in Annex 2.2, we have assumed a proportion of the workforce will leave each year for reasons other than retirement – these annual proportions range from 2% to 5% depending on the occupation.

2.3.4 In total, in addition to the core requirement for 40,000 people by 2032, an additional 20,000 people may be needed to fill vacancies by those who leave the workforce for other reasons.

Figure 3: Potential additional vacancies (over-and-above the core requirement)

Sub-Industry	Number	*% of current workforce*
Water collection, treatment and supply	11,500	*20%*
Sewerage	6,300	*20%*
Construction of Water Utility Projects	2,300	*42%*
Water & Sewerage	**20,000**	*22%*

Note: Figures may not sum to the grand total due to rounding.

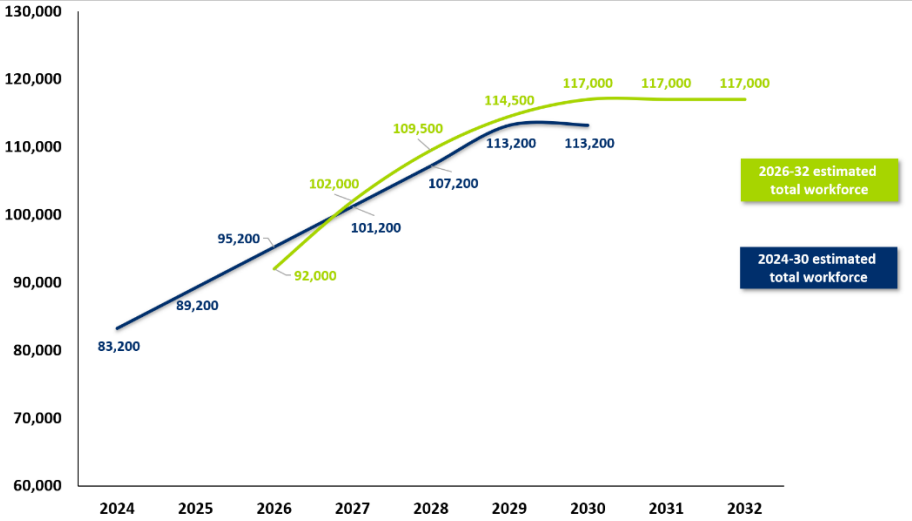
2.3.5 The challenge for the industry will be to minimise these additional vacancies, while recognising that some level of staff turnover is generally considered positive in terms of bringing in a diversity of people, experiences and ideas. Commitment 3: Retain experience and widen access to opportunity in the Call to Action below provides further information on how the sector might achieve improvements in workforce retention.

2.4 Research: Maintaining the credibility of these forecasts

2.4.1 These workforce demand estimates were published for the first time in 2024 and will be updated every two years.

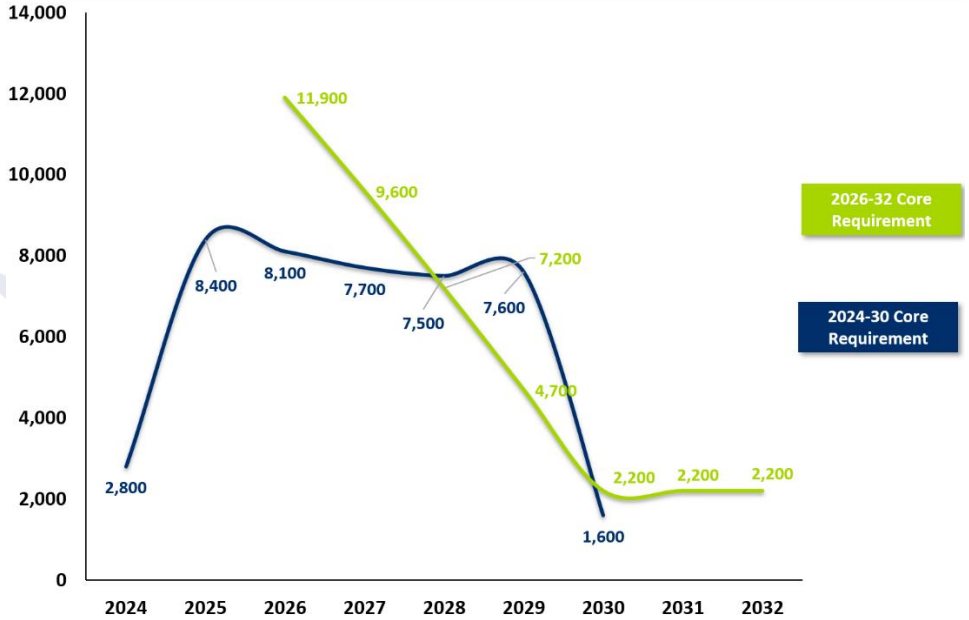
2.4.2 In order to assess how our forecasts of workforce growth have changed since our 2024 forecasts, the figure below presents our latest forecasts side-by-side.

Figure 4: Forecast total workforce for 2026-32 compared to 2024-30 forecast



2.4.3 Overall, our forecasts for the total workforce vary little between those presented in 2024 and the updated forecasts presented in this report.

Figure 5: Forecast total demand for 2026-32 compared to 2024-30 forecast



2.4.4 The principal reason behind this different core requirement profile is that in 2024 we flat-profiled the forecast 30,000 new jobs across AMP8, while in our latest forecasts we have assumed 25,000 new jobs over the remaining four years of AMP8 and front-loaded them as depicted in figure 5 above.

2.4.5 Our aim, wherever possible, is to improve the accuracy of these workforce demand estimates with each update.

2.5 Nations and regions

2.5.1 England accounts for the majority of workforce demand in Water & Sewerage, requiring 32,600 of the 40,000 people needed by 2032.

2.5.2 Scotland faces the greatest relative workforce challenge among the four nations, requiring 4,200 people by 2032 – equivalent to 55% of the current workforce.

2.5.3 The South East faces the largest regional workforce challenge, requiring 7,000 people by 2032, followed by the East of England (4,900) and the South West (4,300).

Figure 6: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 by nation and region

Nation & Region	Total employment		New jobs created		Retirements		Core requirement for people		
	2025 baseline	2032	Number	*% Growth*	Number	*% of current workforce*	Total	*% of current workforce*	Average per year
England	77,000	97,100	20,100	*26%*	12,500	*16%*	32,600	*42%*	4,700
Northern Ireland	2,100	2,500	400	*21%*	300	*15%*	700	*36%*	100
Scotland	7,600	10,500	2,800	*37%*	1,300	*17%*	4,200	*55%*	600
Wales	5,200	6,800	1,600	*31%*	900	*17%*	2,500	*47%*	400
United Kingdom	**92,000**	**117,000**	**25,000**	***27%***	**15,000**	***16%***	**40,000**	***43%***	**5,700**
English regions									
East of England	9,100	12,500	3,300	*37%*	1,600	*17%*	4,900	*54%*	700
East Midlands	5,400	6,500	1,100	*19%*	800	*15%*	1,900	*35%*	300
London	2,900	4,200	1,300	*46%*	600	*19%*	1,900	*65%*	300
North East	4,100	5,000	900	*22%*	600	*15%*	1,500	*38%*	200
North West	9,000	11,200	2,200	*24%*	1,400	*16%*	3,600	*40%*	500
South East	18,600	22,600	4,000	*21%*	3,000	*16%*	7,000	*38%*	1,000
South West	10,500	13,100	2,600	*25%*	1,700	*16%*	4,300	*41%*	600
West Midlands	9,900	12,300	2,300	*23%*	1,500	*15%*	3,900	*39%*	600
Yorkshire & The Humber	7,500	9,800	2,400	*32%*	1,300	*17%*	3,600	*49%*	500

Note: Figures may not sum to the grand total due to rounding.

2.6 Skills and occupations

Skill levels

2.6.2 Workforce demand is concentrated in RQF 3 occupations, which require 10,500 people by 2032—equivalent to 52% of the current workforce.

2.6.3 RQF 1 and RQF 6 occupations face the next-largest requirements, at 9,300 and 8,300 people respectively. Together with RQF 3, these levels account for 28,100 of the 40,000 people required.

2.6.4 New jobs created exceeds retirements at every qualification level. This is most pronounced at RQF 3, where 6,700 new jobs and 3,800 retirements create a core requirement for 10,500 people, highlighting the combined pressure of workforce expansion and renewal.

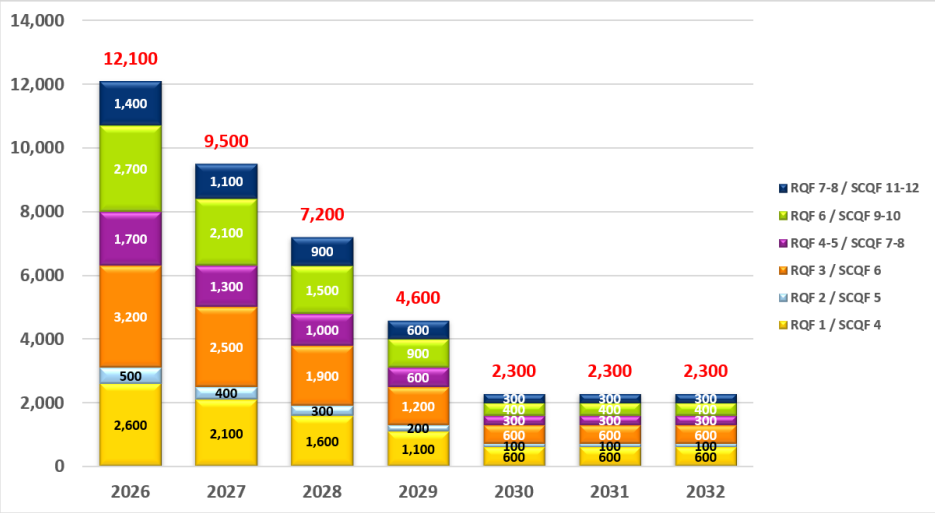
Figure 7: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 by skill level

RQF/SCQF Level	Total employment		New jobs created		Retirements		Core requirement for people		
	2025 baseline	2032	Number	*% Growth*	Number	*% of current workforce*	Total	*% of current workforce*	Average per year
RQF 7-8 SCQF 11-12	10,700	13,400	2,700	*26%*	2,100	*20%*	4,900	*45%*	700
RQF 6 SCQF 9-10	20,100	26,000	5,900	*29%*	2,400	*12%*	8,300	*41%*	1,200
RQF 4-5 SCQF 7-8	15,400	19,000	3,600	*23%*	1,900	*12%*	5,400	*35%*	800
RQF 3 SCQF 6	20,300	27,000	6,700	*33%*	3,800	*18%*	10,500	*52%*	1,500
RQF 2 SCQF 5	5,600	6,600	1,000	*18%*	600	*11%*	1,600	*29%*	200
RQF 1 SCQF 4	19,800	24,900	5,100	*26%*	4,200	*21%*	9,300	*47%*	1,300
Water & Sewerage	**92,000**	**117,000**	**25,000**	***27%***	**15,000**	***16%***	**40,000**	***43%***	**5,700**

Note: Figures may not sum to the grand total due to rounding.

2.6.5 The next figure breaks these annual numbers down by skill level.

Figure 8: Core requirement for people by skill level and year



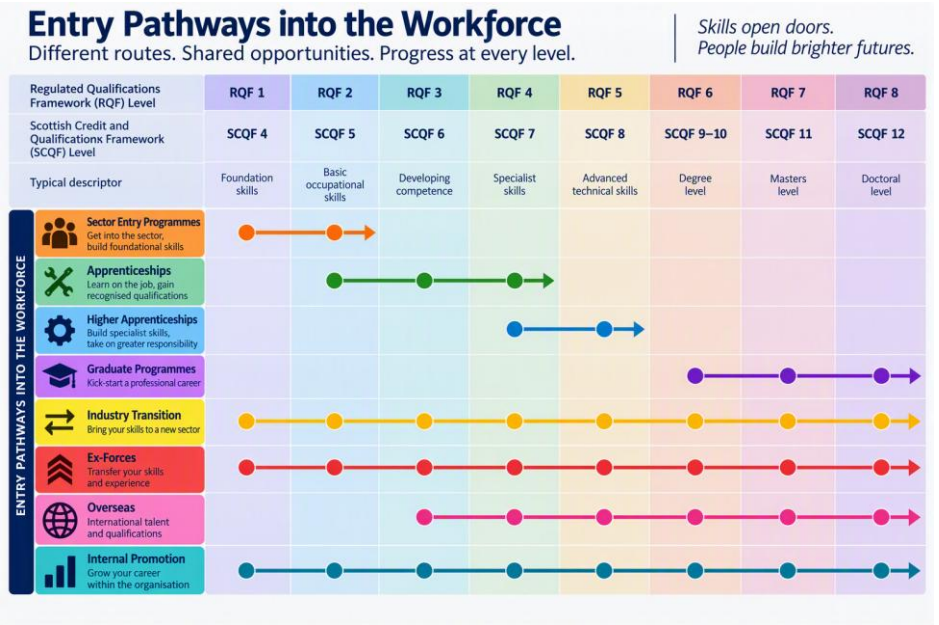
Note: Figures may not sum to the grand total due to rounding.

2.6.6 The entry pathways into the workforce will vary depending upon the skill level of the occupation. Each entry pathway will have its unique characteristics in terms of lead-time to competency and entry point into the workforce.

2.6.7 At skill levels 1 and 2 (4-5 in Scotland), sector entry-type programmes could provide an immediate solution. At skill levels 3-5 (6-8 in Scotland), a number of entry pathways may be appropriate, but lead-times to competency will determine the extent to which they are able to satisfy immediate demands (e.g. with training lead-times of 3 years+ for an apprentice (and the associated need for trainers, assessors and mentors), increasing the volume in the pipeline now will not produce positive outcomes until the turn of the decade).

2.6.8 Transitioning in experienced workers from other sectors will be a priority, as will developing the existing workforce and enabling career progression via internal promotions. However, this process cannot be rushed to point where people are promoted prematurely.

Figure 9: Potential entry pathways into the workforce



2.6.9 Industry will make use of range of different recruitment and training pathways, providing a balanced approach to meeting both short-term and longer-term demands for people.

Occupations

2.6.10 This analysis is based on UK's Standard Occupational Classification system at the two-digit – sub-major group – level.

2.6.11 All our estimates and forecasts have been broken down by 26 occupations – based on the two-digit Standard Occupational Classification taxonomy. Furthermore, these have been grouped into five occupational groups (more information can be found in Annex 1):

- **Managerial**: Directors and functional managers
- **Technical Professional**: Typically, science and engineering professional engineers
- **Business Support**: Typically, roles including media, marketing, site security, and specialist roles such as quantity surveyor, estimator and procurement
- **Front Line Technical**: Typically, operative and craft level workers such as Pipe Layer, plant operator, Welder, Leakage Technician, etc.
- **Other**: In the main, these occupations are generally not directly relevant to the core activities of the industry, but data collection processes may result in a small number of people being reported (e.g. nurses/first aiders, community development specialists, etc.).

2.6.12 Business Support occupations have the largest core requirement, with 14,600 people needed by 2032, equivalent to 41% of the current workforce.

2.6.13 Front Line Technical occupations have the second-largest requirement, at 13,600 people, and face the greatest relative pressure among the main occupational groups. Demand is equivalent to 52% of the current Front Line Technical workforce.

2.6.14 Figure 11 below breaks down these broad occupational groups into 26 two-digit SOC.

Figure 10: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 by broad occupational group

Broad Occupational Group	Total employment		New jobs created		Retirements		Core requirement for people		
	2025 baseline	2032	Number	% Growth	Number	% of current workforce	Total	% of current workforce	Average per year
Managerial	10,700	13,400	2,700	*26%*	2,100	*20%*	4,800	*45%*	700
Technical Professional	19,200	23,900	4,700	*24%*	2,100	*11%*	6,800	*36%*	1,000
Business Support	35,600	44,900	9,300	*26%*	5,300	*15%*	14,600	*41%*	2,100
Front Line Technical	26,000	34,200	8,200	*32%*	5,400	*21%*	13,600	*52%*	1,900
Other	500	500	100	*18%*	100	*16%*	200	*33%*	<100
Water & Sewerage	**92,000**	**117,000**	**25,000**	***27%***	**15,000**	***16%***	**40,000**	***43%***	**5,700**

Note: Figures may not sum to the grand total due to rounding.

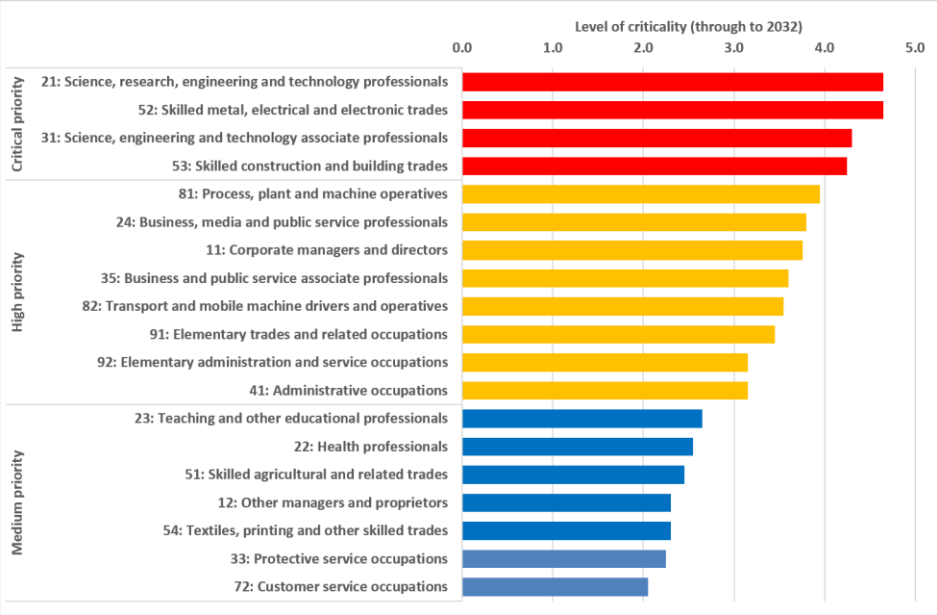
Figure 11: Current workforce estimates and forecast number of new jobs created, replacement demand and new people required by occupation

Skill level	Standard Occupation Classification (Sub-Major Group)	Total employment		New jobs created		Retirements		Core requirement for people		
		2025 baseline	2032	Number	% Growth	Number	% of current workforce	Total	% of current workforce	Average per year
RQF 7-8 SCQF 11-12	11 - Corporate Managers and Directors	7,100	9,200	2,100	*29%*	1,500	*20%*	3,500	*49%*	500
	12 - Other Managers and Proprietors	3,500	4,200	700	*19%*	700	*19%*	1,400	*38%*	200
RQF 6 SCQF 9-10	21 - Science, Research, Engineering and Technology Professionals	11,800	14,800	3,000	*25%*	1,200	*10%*	4,200	*36%*	600
	22 - Health Professionals	0	0	0	--	0	--	0	--	0
	23 - Teaching and Other Educational Professionals	0	0	0	--	0	--	0	--	0
	24 - Business, Media and Public Service Professionals	8,400	11,300	2,900	*35%*	1,200	*15%*	4,100	*49%*	600
RQF 4-5 SCQF 7-8	31 - Science, Engineering and Technology Associate Professionals	7,400	9,100	1,700	*23%*	900	*13%*	2,600	*35%*	400
	32 - Health and Social Care Associate Professionals	0	0	0	--	0	--	0	--	0
	33 - Protective Service Occupations	0	0	0	--	0	--	0	--	0
	34 - Culture, Media and Sports Occupations	100	100	<100	*18%*	<100	*10%*	<100	*28%*	<100
	35 - Business and Public Service Associate Professionals	7,900	9,800	1,900	*23%*	900	*12%*	2,800	*35%*	400
RQF 3 SCQF 6	41 - Administrative Occupations	9,900	12,700	2,800	*28%*	1,800	*18%*	4,600	*46%*	700
	42 - Secretarial and Related Occupations	900	1,100	200	*17%*	200	*24%*	400	*41%*	100
	51 - Skilled Agricultural and Related Trades	100	100	<100	*18%*	<100	*31%*	<100	*49%*	<100
	52 - Skilled Metal, Electrical and Electronic Trades	6,500	8,700	2,100	*33%*	1,100	*17%*	3,300	*50%*	500
	53 - Skilled Construction and Building Trades	2,500	4,100	1,600	*61%*	600	*21%*	2,100	*83%*	300
	54 - Textiles, Printing and Other Skilled Trades	300	400	100	*18%*	100	*15%*	100	*33%*	<100
	61 - Caring Personal Service Occupations	100	100	<100	*18%*	<100	*17%*	<100	*35%*	<100
	62 - Leisure, Travel and Related Personal Service Occupations	100	100	<100	*16%*	<100	*17%*	<100	*33%*	<100
	63 - Community and Civil Enforcement Occupations	0	0	0	--	0	--	0	--	0
RQF 2 SCQF 5	71 - Sales Occupations	800	1,000	200	*21%*	100	*15%*	300	*36%*	<100
	72 - Customer Service Occupations	4,700	5,500	800	*18%*	500	*10%*	1,300	*28%*	200
RQF 1 SCQF 4	81 - Process, Plant and Machine Operatives	11,200	13,500	2,300	*20%*	2,200	*20%*	4,500	*40%*	600
	82 - Transport and Mobile Machine Drivers and Operatives	3,100	4,300	1,100	*37%*	1,000	*30%*	2,100	*67%*	300
	91 - Elementary Trades and Related Occupations	2,500	3,600	1,100	*42%*	500	*21%*	1,600	*63%*	200
	92 - Elementary Administration and Service Occupations	3,000	3,600	600	*20%*	500	*16%*	1,100	*37%*	200
Water & Sewerage		**92,000**	**117,000**	**25,000**	***27%***	**15,000**	***16%***	**40,000**	***43%***	**5,700**

2.6.15 In order to assess how critical each occupation is to the success of the industry through to 2032, we have developed a criticality framework based on 11 criteria. Further details of this methodology can be found in Annex 2.

2.6.16 The figure below ranks each of the above occupations in terms of their level of priority through to 2032 based on a range of eleven criteria (including taking in account each occupation's importance to delivery and level of shortage in the UK) – those ranked as low priority are not shown.

Figure 12: Forecasted level of occupational criticality through to 2032



2.6.17 Four occupations are ranked as critical:

- 21: Science, research, engineering and technology professionals
- 52: Skilled metal, electrical and electronic trades
- 31: Science, engineering and technology associate professionals
- 53: Skilled construction and building trades

2.6.18 These occupations are likely to be major constraints on infrastructure delivery by 2032 because they combine high delivery criticality, existing shortages, long training lead times, regulatory importance and limited scalability. It is likely that immediate intervention is required, including targeted workforce strategies, apprenticeships, retraining programmes, recruitment campaigns and supply-chain action.

2.6.19 By 2032, these four critical occupations will employ an additional 8,400 people and need to attract 12,200 new people to enter their workforces.

2.6.20 Eight occupations are ranked as high priority:

- 81: Process, plant and machine operatives
- 24: Business, media and public service professionals
- 11: Corporate managers and directors
- 35: Business and public service associate professionals
- 82: Transport and mobile machine drivers and operatives
- 91: Elementary trades and related occupations
- 92: Elementary administration and service occupations
- 41: Administrative occupations

2.6.21 These occupations present a significant workforce risk and are likely to experience recruitment pressure but are not expected to be a critical bottleneck across the industry. Active monitoring and targeted interventions are required.

2.6.22 By 2032, these eight high priority occupations will employ an additional 14,800 people and need to recruit 24,300 new people into their workforces.

2.6.23 In total, some 23,200 new jobs will be created in occupations that are either critical or high priority occupations; requiring more than 36,500 new people to enter their workforces.

2.6.24 Furthermore, we have applied this same methodology to a more detailed taxonomy of occupations – the four-digit Unit Group of occupations.

2.6.25 Four detailed occupations have been identified as being a critical priority for the water and sewerage industry over the next seven years. These are listed in Figure 13 below, along with estimates of the current and future workforce, new jobs created, retirements and the core requirement for people.

2.6.26 These critical detailed occupations are forecast to grow by 3,200 jobs and need 4,200 new people by 2032.

2.6.27 Electricians and Electrical Fitters will require the most new people to enter their workforce – 1,500 (or 200 per year).

2.6.28 In addition, three detailed occupations were also identified as being critical to the future success of the industry, but will require relatively small numbers by 2032:

- Chemical Scientists
- Biological Scientists
- Environment Professionals

Figure 13: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 in critical priority occupations (four-digit Unit Group)

Skill level	Standard Occupation Classification (Unit Group)	Total employment		New jobs created		Retirements		Core requirement for people		
		2025 baseline	2032	Number	*% Growth*	Number	*% of current workforce*	Total	*% of current workforce*	Average per year
RQF 3 SCQF 6	**5241 – Electricians and Electrical Fitters**	2,800	3,800	1,000	*36%*	500	*18%*	1,500	*54%*	200
RQF 6 SCQF 9-10	**2123 – Electrical Engineers**	4,200	5,200	1,000	*24%*	400	*10%*	1,400	*33%*	200
RQF 6 SCQF 9-10	**2121 – Civil Engineers**	700	900	200	*29%*	100	*14%*	300	*43%*	<100
RQF 3 SCQF 6	**5330 – Construction and Building Trades Supervisors**	1,600	2,600	1,000	*63%*	300	*19%*	1,300	*81%*	200
Water & Sewerage – Critical priority detailed occupations		**9,300**	**12,500**	**3,200**	***34%***	**1,200**	***14%***	**4,200**	***49%***	**600**

Note: Figures may not sum to the grand total due to rounding.

3 Impact of artificial intelligence and automation on workforce demands

3.1.1 Ofwat's AI Adoption Plan[2] suggests that AI is likely to have a greater impact on how work is undertaken in the water and sewerage industry than on overall employment levels.

3.1.2 The greatest workforce-demand reductions are expected in routine operational, customer-service and administrative activities, while engineering, asset-management, maintenance and digital-specialist roles are more likely to be augmented by AI. The transition towards predictive maintenance, smart networks, real-time monitoring and data-driven operations is expected to increase demand for digital and analytical skills while maintaining the need for skilled technical and engineering workers.

3.1.3 Ofwat notes that AI is already being adopted across water and sewerage operations, including leakage detection, network optimisation, customer service, billing and regulatory reporting. The emphasis is on changing operational and analytical roles rather than wholesale worker substitution. Human judgement and organisational accountability remain essential.

3.1.4 Ofwat highlights growing use of AI to predict:

- Sewer blockages
- Pollution incidents
- Storm overflow risks
- Asset failures

3.1.5 This enables preventative rather than reactive maintenance approaches. The key implications for workforce demand include fewer emergency-response activities, increased demand for planned maintenance, asset-management and diagnostic skills and occupations will become more technology-enabled.

3.1.6 A recurring theme within the plan is that effective AI adoption depends on data quality, data management and organisational capability. Ofwat identifies data readiness as a key constraint on adoption. This means there is a growing demand for:

- Data analysts
- Digital specialists
- Asset-information professionals
- Instrumentation and telemetry technicians
- AI-enabled operational analysts

3.1.7 The demand for these roles is supported by the rollout of around 10 million smart meters between 2025 and 2030, creating much larger datasets for demand forecasting, leakage management and customer engagement.

3.1.8 Below is a list of roles which are highly exposed to automation. These include:

- **Control Room Operators** — AI-driven network optimisation, telemetry monitoring, predictive analytics and automated decision-support can reduce routine monitoring and operational-control activities.

[2] Ofwat AI adoption plan for the water sector during transition – Ofwat, June 2026

- **Water Treatment and Sewerage Works Operators** — Automation of treatment processes, sensor networks, remote monitoring and predictive-control systems reduce the need for routine manual operational oversight, while increasing the importance of exception management, optimisation and regulatory compliance activities.
- **Call Centre Agent/Customer Service Agent** — Customer service billing is an established AI use case. Virtual agents and automated enquiry handling can replace a large proportion of routine customer interactions.
- **Administrator** — AI can automate reporting, document management, workflow processing, data entry and routine office administration, making this one of the most exposed functions.
- **Leakage Technician / Network Inspector** — AI-enabled leak detection, network analytics, sensor technologies and smart-meter data can increasingly identify potential issues before physical inspection is required, shifting activity towards validation and targeted intervention.

3.1.9 Overall, the evidence suggests that AI and automation will primarily accelerate the digital transformation of the water and sewerage industry rather than fundamentally reduce workforce demand. The sector is expected to become increasingly data-driven, with greater use of predictive analytics, smart networks and real-time monitoring to improve operational performance and resilience. As adoption progresses, the industry's workforce requirements are likely to evolve towards stronger digital, analytical and technical capabilities, while human oversight, regulatory accountability and operational expertise remain central to service delivery.

3.1.10 The following assessment considers how workforce demand may be affected under different levels of AI and automation adoption within the water and sewerage industry. Occupational groups have been classified according to their likely workforce-demand response to AI and automation adoption:

- **At Risk of Reduction** – Fewer workers may be required because AI and automation increase productivity and automate routine tasks.
- **Significantly Impacted** – Workforce demand remains broadly stable, but roles undergo substantial redesign as tasks, skills, responsibilities and workflows change significantly.
- **Augmented** – AI and automation improve productivity, decision-making and performance, but primarily enhance rather than redesign core roles, and demand for workers remains strong.
- **Limited Impact** – Little expected effect on workforce demand because activities continue to depend heavily on physical intervention, human interaction or site-based work.

3.1.11 Both *Significantly Impacted* and *Augmented* occupations are expected to experience widespread adoption of AI and automation. The key difference is that significantly impacted occupations are expected to undergo substantial job redesign, while augmented occupations primarily experience productivity and performance improvements with limited changes to the core nature of the role.

3.1.12 Low, medium and high adoption scenarios have been developed using a seven-dimension framework covering:

- investment and pace of adoption;
- technology maturity and autonomy;
- breadth of deployment;
- depth of workflow integration;

- task automation and augmentation;
- job redesign and skills transformation;
- productivity ambition.

3.1.13 These adoption scenarios describe the extent to which AI and automation are deployed within the industry. The occupational assessment then considers how different occupations may be affected under each adoption scenario.

3.1.14 The scenarios are intended to illustrate a range of plausible outcomes through to 2032 rather than predict a single future state:

- **Low Adoption** — AI and automation adoption remains relatively limited and focused on specific use cases. Organisations deploy individual tools for activities such as information retrieval, reporting, scheduling, basic analytics or administrative support, but these technologies are not extensively integrated into operational workflows. Most work continues to be undertaken using existing processes and workforce-demand impacts are limited.
- **Medium adoption** — AI and automation become mainstream across many organisations and functions. Proven technologies are integrated into business processes and support activities such as planning, monitoring, customer engagement, decision support and predictive maintenance. Roles and skill requirements begin to evolve, productivity improves and organisations increasingly use technology to redesign workflows and operating practices.
- **High adoption** — AI and automation are extensively embedded across organisational processes, operational activities and decision-making. Technologies are integrated with core systems, data and workflows, enabling significant automation, augmentation and workflow redesign. Organisations achieve substantial productivity gains and workforce demand is affected according to the exposure of the occupation group, with impacts ranging from workforce reduction in some roles to significant augmentation in others.

3.1.15 Potential workforce effects are assessed separately through the occupational risk categories and scenario analysis.

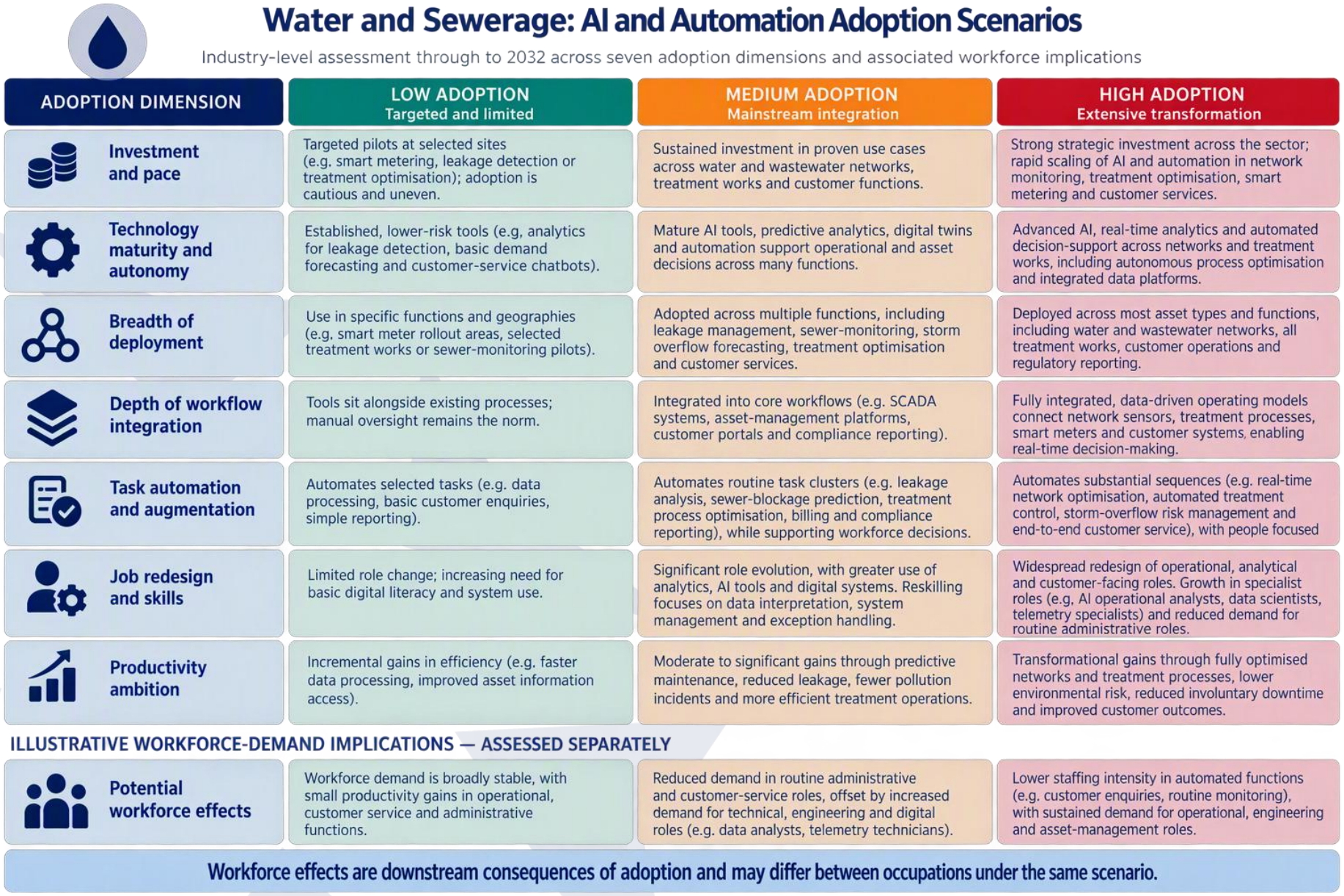
3.1.16 It is important to note that higher levels of AI and automation adoption do not automatically result in workforce reductions; impacts vary according to the characteristics of individual occupations and the extent to which tasks can be automated. Actual workforce outcomes will also depend on wider drivers including investment levels, regulatory requirements, infrastructure programmes, technological maturity and future demand for water and sewerage services.

Figure 14: Assessment of AI and automation risk by occupation

Risk category	Standard Occupation Classification	Occupational Group	Adoption Scenarios		
			Low Adoption	Medium Adoption	High Adoption
At Risk of Reduction	71 - Sales Occupations 72 - Customer Service Occupations 41 - Administrative Occupations 42 - Secretarial and Related Occupations 92 - Elementary Administration and Service Occupations 34 - Culture, Media and Sports Occupations	Business Support	AI is used mainly for document management, reporting, scheduling and customer-service support. Most administrative activities remain human-led and workforce demand remains broadly stable.	AI is routinely used for customer enquiries, billing, smart-meter administration, compliance documentation, reporting and workforce administration. Productivity improves while recruitment demand slows as routine tasks are increasingly automated.	AI is deeply integrated across customer service, billing, compliance reporting and workflow management. Automated processes, virtual agents and AI-generated reporting significantly reduce routine support activities and lower staffing intensity.
	62 - Leisure, Travel and Related Personal Service Occupations	Other	AI supports content creation, communications and stakeholder-engagement activities. Human oversight remains central to most work.	Generative AI becomes widely used for communications, customer-engagement materials, scheduling and content production. Routine support activities become increasingly automated.	AI automates large elements of communications production, marketing content and routine coordination activities, reducing demand for repetitive support work.
Significantly Impacted	24 - Business, Media and Public Service Professionals 35 - Business and Public Service Associate Professionals	Business Support	AI supports regulatory reporting, asset-performance analysis, operational planning and programme-management activities. Most professional judgement remains unchanged.	AI becomes embedded within leakage-performance analysis, smart-meter data interpretation, sewer-network monitoring, storm-overflow reporting and asset-performance management. Roles increasingly focus on interpretation, validation and assurance.	AI undertakes significant portions of leakage analysis, pollution forecasting, smart-meter analytics, regulatory reporting and asset-prioritisation activities. Roles are redesigned around oversight, governance and decision-making, requiring substantial reskilling.
	54 - Textiles, Printing and Other Skilled Trades	Other	AI-assisted design, documentation and workflow-management tools support existing processes, with limited changes to role requirements.	Intelligent design and documentation systems automate routine technical-production activities, increasing demand for digital and systems-management skills.	AI is integrated throughout production and documentation workflows. Workers increasingly manage, verify and quality-assure machine-generated outputs rather than producing them manually.
	81 - Process, Plant and Machine Operatives	Front Line Technical	Automation mainly supports treatment-process monitoring, telemetry systems and operational reporting. Operators remain responsible for routine operational decisions.	AI-enabled network optimisation, predictive maintenance, leakage detection and treatment-process monitoring become widespread. Workers spend less time on routine monitoring and more time responding to AI-generated insights.	Automated treatment optimisation, predictive-control systems, real-time network analytics and intelligent telemetry platforms significantly reshape operational roles. Workers increasingly manage exceptions, regulatory compliance and system assurance rather than routine monitoring and operational control.
	31 - Science, Engineering and Technology Associate Professionals	Technical Professional	AI supports condition monitoring, telemetry analysis, technical reporting and asset-health assessments across water and sewerage networks. Existing technician roles remain broadly unchanged.	Predictive maintenance, leakage detection systems, smart-meter data, telemetry networks and sewer-monitoring platforms become increasingly common. Technicians increasingly use AI-generated insights to identify potential asset failures, blockages and network-performance issues.	AI is deeply integrated into leakage analytics, asset-health monitoring, sewer-blockage prediction, smart-meter analytics and maintenance planning. Roles shift towards interpreting AI-generated insights and managing increasingly automated monitoring systems.

Risk category	Standard Occupation Classification	Occupational Group	Adoption Scenarios		
			Low Adoption	Medium Adoption	High Adoption
Augmented	11 - Corporate Managers and Directors	Managerial	Managers use AI for reporting, performance monitoring and information retrieval. Decision-making remains largely unchanged.	AI supports leakage-reduction programmes, asset-investment planning, smart-meter rollouts, maintenance prioritisation and operational performance management, enabling more data-driven management.	AI is embedded across asset management, leakage-reduction strategies, network performance management and regulatory reporting. Managers achieve significant productivity gains while retaining accountability for operational and environmental outcomes.
	12 - Other Managers and Proprietors				
	21 - Science, Research, Engineering and Technology Professionals	Technical Professional	AI supports engineering analysis, asset reviews and network-performance assessments.	AI-enabled modelling, predictive analytics and advanced monitoring improve leakage reduction, asset performance and maintenance planning.	AI is deeply embedded in hydraulic modelling, network optimisation, asset management and infrastructure planning. Productivity improves significantly while demand for engineering professionals remains strong.
	22 - Health Professionals 23 - Teaching and Other Educational Professionals 32 - Health and Social Care Associate Professionals	Other	AI supports training preparation, information management and administrative activities, with limited impact on workforce demand.	AI enhances workforce training, knowledge management and professional support activities, increasing demand for digital skills.	AI supports learning, skills analysis and workforce planning, making training and support functions more data-driven while workforce demand remains stable.
	33 - Protective Service Occupations	Business Support	AI supports site-security monitoring, surveillance and risk-detection activities, with limited changes to working practices.	Intelligent monitoring systems improve incident detection, threat identification and security management.	AI significantly improves monitoring, threat detection and incident-response coordination. Human judgement remains essential in safety-critical and regulated environments.
	51 - Skilled Agricultural and Related Trades	Front Line Technical	AI supports inspection planning, work scheduling, equipment monitoring and basic diagnostics. Most physical maintenance activities remain unchanged.	Predictive maintenance, AI-assisted diagnostics, smart-meter data and digital field-force management tools improve efficiency across water and sewerage networks. Workers increasingly use digital decision-support tools.	AI enhances maintenance planning, condition monitoring, leakage detection, sewer-network monitoring and equipment diagnostics. Workers increasingly use AI-generated insights and automated monitoring systems, but physical maintenance, repair and field operations remain essential.
	52 - Skilled Metal, Electrical and Electronic Trades				
	82 - Transport and Mobile Machine Drivers and Operatives				
Limited Impact	53 - Skilled Construction and Building Trades	Front Line Technical	AI is limited to digital work instructions, scheduling tools and basic planning support, with little change to core physical work.	AI supports project planning, safety management and site coordination, but construction and site activities remain labour-intensive.	Physical construction, excavation, network replacement and site-based work remain essential. AI improves productivity and safety but has limited impact on workforce demand.
	91 - Elementary Trades and Related Occupations				
	61 - Caring Personal Service Occupations	Other	AI provides limited administrative support but has little influence on core activities.	Digital tools improve coordination and access to information, although work remains heavily dependent on human interaction and judgement.	Technology supports planning and information management but does not significantly alter workforce demand due to the inherently interpersonal nature of the work.
	63 - Community and Civil Enforcement Occupations				

Figure 15: Water and sewerage AI and automation adoption scenarios



4 Sub-industry forecasts

4.1 Water collection, treatment and supply

Figure 16: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 by sub-industry

Sub-Industry	Total employment		New jobs created		Retirements		Core requirement for people		
	2025 baseline	2032	Number	% Growth	Number	% of current workforce	Total	% of current workforce	Average per year
Water & Sewerage — Water collection, treatment and supply	**55,900**	**65,900**	**10,000**	***18%***	**8,100**	***14%***	**18,100**	***32%***	**2,600**

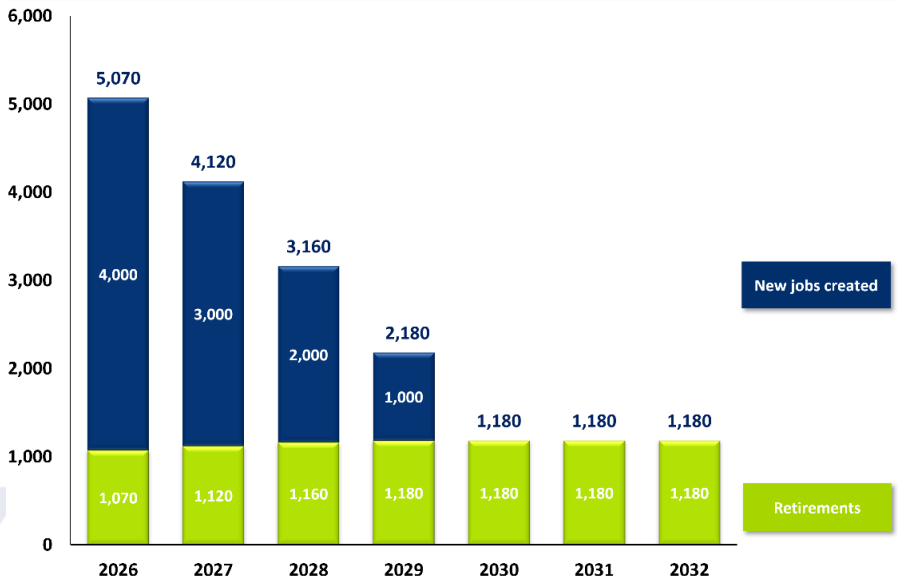
Note: Figures may not sum to the grand total due to rounding.

4.1.1 Water Collection, Treatment and Supply requires 18,100 people by 2032, equivalent to 32% of the current workforce. This comprises 10,000 new jobs and 8,100 retirements, meaning workforce growth is the slightly larger driver of demand.

4.1.2 Annual workforce demand is heavily front-loaded, falling from 5,070 people in 2026 to 2,180 in 2029, before stabilising at 1,180 people per year from 2030 onwards.

4.1.3 The decline in workforce demand is driven by falling new jobs created, which reduces from 4,000 people in 2026 to zero from 2030 onwards. Retirements remain comparatively stable, rising from 1,070 in 2026 to 1,180 from 2029 onwards, and become the sole source of workforce demand from 2030.

Figure 17: Core requirement for people by year and cause



Note: Figures may not sum to the grand total due to rounding.

4.1.4 England accounts for the majority of the core workforce, requiring 14,700 of the 18,100 people needed by 2032.

4.1.5 Scotland requires 1,700 people, Wales 1,200 and Northern Ireland 500 by 2032. Across all four nations, the core requirement is equivalent to 32% of the current workforce, comprising 18% from new jobs created and 14% from retirements.

4.1.6 The West Midlands faces the largest regional workforce requirement, needing 2,600 people by 2032, followed by the South West (2,200) and the North West and South East (2,000 each).

Figure 18: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 by nation and region

Nation & Region	Total employment		New jobs created		Retirements		Core requirement for people		
	2025 baseline	2032	Number	*% Growth*	Number	*% of current workforce*	Total	*% of current workforce*	Average per year
England	45,500	53,700	8,100	*18%*	6,700	*14%*	14,700	*32%*	2,100
Northern Ireland	1,600	1,900	300	*18%*	200	*14%*	500	*32%*	100
Scotland	5,100	6,100	900	*18%*	700	*14%*	1,700	*32%*	200
Wales	3,600	4,200	600	*18%*	500	*14%*	1,200	*32%*	200
United Kingdom	**55,900**	**65,900**	**10,000**	***18%***	**8,100**	***14%***	**18,100**	***32%***	**2,600**
English regions									
East of England	5,900	7,000	1,100	*18%*	900	*14%*	1,900	*32%*	300
East Midlands	4,000	4,700	700	*18%*	600	*14%*	1,300	*32%*	200
London	700	800	100	*18%*	100	*14%*	200	*32%*	<100
North East	3,600	4,300	600	*18%*	500	*14%*	1,200	*32%*	200
North West	6,100	7,200	1,100	*18%*	900	*14%*	2,000	*32%*	300
South East	6,100	7,200	1,100	*18%*	900	*14%*	2,000	*32%*	300
South West	7,000	8,200	1,200	*18%*	1,000	*14%*	2,200	*32%*	300
West Midlands	8,000	9,400	1,400	*18%*	1,200	*14%*	2,600	*32%*	400
Yorkshire & The Humber	4,100	4,900	700	*18%*	600	*14%*	1,300	*32%*	200

Note: Figures may not sum to the grand total due to rounding.

4.1.7 Business Support occupations have the largest core workforce requirement, requiring 7,300 people by 2032.

4.1.8 Front Line Technical occupations have the second-largest requirement at 4,800 people and face the greatest relative pressure among the main occupational groups, equivalent to 37% of the current workforce.

4.1.9 Business Support and Front Line Technical occupations together account for 12,100 of the 18,100 people required by 2032, equivalent to around 67% of total demand.

Figure 19: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 by broad occupational group

Broad Occupational Group	Total employment		New jobs created		Retirements		Core requirement for people		
	2025 baseline	2032	Number	*% Growth*	Number	*% of current workforce*	Total	*% of current workforce*	Average per year
Managerial	5,100	6,000	900	*18%*	900	*19%*	1,900	*36%*	300
Technical Professional	13,900	16,400	2,500	*18%*	1,500	*11%*	4,000	*29%*	600
Business Support	23,300	27,400	4,200	*18%*	3,100	*13%*	7,300	*31%*	1,000
Front Line Technical	13,300	15,600	2,400	*18%*	2,500	*19%*	4,800	*37%*	700
Other	400	500	100	*18%*	100	*16%*	100	*33%*	<100
Water & Sewerage — Water collection, treatment and supply	**55,900**	**65,900**	**10,000**	***18%***	**8,100**	***14%***	**18,100**	***32%***	**2,600**

Note: Figures may not sum to the grand total due to rounding.

4.1.10 Figure shows demand is concentrated in a small number of occupations:

- Process, Plant and Machine Operatives – 2,700 people
- Science, Research, Engineering and Technology Professionals – 2,300 people
- Business, Media and Public Service Professionals – 2,100 people
- Administrative Occupations – 1,800 people

Figure 20: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 by occupation

Skill level	Standard Occupation Classification	Total employment		New jobs created		Retirements		Core requirement for people		
		2025 baseline	2032	Number	*% Growth*	Number	*% of current workforce*	Total	*% of current workforce*	Average per year
RQF 7-8 SCQF 11-12	11 - Corporate Managers and Directors	3,000	3,500	500	*18%*	500	*19%*	1,100	*36%*	200
	12 - Other Managers and Proprietors	2,100	2,500	400	*18%*	400	*19%*	800	*36%*	100
RQF 6 SCQF 9-10	21 - Science, Research, Engineering and Technology Professionals	8,300	9,800	1,500	*18%*	800	*10%*	2,300	*28%*	300
	22 - Health Professionals	0	0	0	--	0	--	0	--	0
	23 - Teaching and Other Educational Professionals	0	0	0	--	0	--	0	--	0
	24 - Business, Media and Public Service Professionals	6,700	7,900	1,200	*18%*	900	*13%*	2,100	*31%*	300
RQF 4-5 SCQF 7-8	31 - Science, Engineering and Technology Associate Professionals	5,600	6,600	1,000	*18%*	700	*12%*	1,700	*30%*	200
	32 - Health and Social Care Associate Professionals	0	0	0	--	0	--	0	--	0
	33 - Protective Service Occupations	0	0	0	--	0	--	0	--	0
	34 - Culture, Media and Sports Occupations	100	100	<100	*18%*	<100	*10%*	<100	*28%*	<100
	35 - Business and Public Service Associate Professionals	5,900	6,900	1,100	*18%*	700	*11%*	1,700	*29%*	200
RQF 3 SCQF 6	41 - Administrative Occupations	5,000	5,900	900	*18%*	800	*17%*	1,800	*35%*	300
	42 - Secretarial and Related Occupations	400	500	100	*18%*	100	*24%*	200	*42%*	<100
	51 - Skilled Agricultural and Related Trades	100	100	<100	*18%*	<100	*31%*	<100	*49%*	<100
	52 - Skilled Metal, Electrical and Electronic Trades	3,000	3,600	500	*18%*	500	*15%*	1,000	*33%*	100
	53 - Skilled Construction and Building Trades	1,300	1,500	200	*18%*	200	*16%*	400	*34%*	100
	54 - Textiles, Printing and Other Skilled Trades	300	400	100	*18%*	100	*15%*	100	*33%*	<100
	61 - Caring Personal Service Occupations	100	100	<100	*18%*	<100	*17%*	<100	*35%*	<100
	62 - Leisure, Travel and Related Personal Service Occupations	0	0	0	--	0	--	0	--	0
	63 - Community and Civil Enforcement Occupations	0	0	0	--	0	--	0	--	0
RQF 2 SCQF 5	71 - Sales Occupations	800	900	100	*18%*	100	*15%*	300	*32%*	<100
	72 - Customer Service Occupations	3,700	4,400	700	*18%*	400	*10%*	1,000	*28%*	100
RQF 1 SCQF 4	81 - Process, Plant and Machine Operatives	7,200	8,500	1,300	*18%*	1,400	*19%*	2,700	*37%*	400
	82 - Transport and Mobile Machine Drivers and Operatives	1,000	1,200	200	*18%*	300	*27%*	500	*45%*	100
	91 - Elementary Trades and Related Occupations	700	800	100	*18%*	100	*18%*	200	*36%*	<100
	92 - Elementary Administration and Service Occupations	700	800	100	*18%*	100	*16%*	200	*34%*	<100
Water & Sewerage — Water collection, treatment and supply		**55,900**	**65,900**	**10,000**	***18%***	**8,100**	***14%***	**18,100**	***32%***	**2,600**

Note: Figures may not sum to the grand total due to rounding.

4.2 Sewerage

Figure 21: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 by sub-industry

Sub-Industry	Total employment		New jobs created		Retirements		Core requirement for people		
	2025 baseline	2032	Number	% Growth	Number	% of current workforce	Total	% of current workforce	Average per year
Water & Sewerage — Sewerage	30,600	35,600	5,000	*16%*	5,000	*16%*	10,000	*32%*	1,400

Note: Figures may not sum to the grand total due to rounding.

4.2.1 Sewerage requires 10,000 people by 2032, equivalent to 32% of the current workforce. Demand is evenly split between 5,000 new jobs and 5,000 retirements, creating a balanced challenge of workforce expansion and renewal.

4.2.2 Annual workforce demand is heavily front-loaded, falling from 2,660 people in 2026 to 1,220 in 2029, before stabilising at 720 people per year from 2030 onwards. This indicates that the greatest recruitment pressure occurs during the early years of the forecast period.

4.2.3 The decline in workforce demand is driven by falling new jobs created, which reduces from 2,000 people in 2026 to zero from 2030 onwards. Retirements remain relatively stable, increasing from 660 in 2026 to 720 from 2029 onwards, and become the sole source of workforce demand from 2030.

Figure 22: Core requirement for people by year and cause



Note: Figures may not sum to the grand total due to rounding.

4.2.4 England accounts for the majority of the core workforce requirement in Sewerage, requiring 9,000 of the 10,000 people needed by 2032.

4.2.5 Scotland requires 500 people, Wales 400 and Northern Ireland 100 by 2032. Across all four nations, the core requirement is equivalent to around 33% of the current workforce, with new jobs created and retirements contributing broadly equally.

4.2.6 The South East has by far the largest regional workforce requirement, needing 3,900 people by 2032. This is followed by the South West (1,000), Yorkshire & The Humber (900) and North West (800).

Figure 23: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 by nation and region

Nation & Region	Total employment		New jobs created		Retirements		Core requirement for people		
	2025 baseline	2032	Number	*% Growth*	Number	*% of current workforce*	Total	*% of current workforce*	Average per year
England	27,400	31,900	4,500	*16%*	4,400	*16%*	9,000	*33%*	1,300
Northern Ireland	400	500	100	*16%*	100	*16%*	100	*33%*	<100
Scotland	1,500	1,800	300	*16%*	300	*16%*	500	*33%*	100
Wales	1,200	1,400	200	*16%*	200	*16%*	400	*33%*	100
United Kingdom	**30,600**	**35,600**	**5,000**	***16%***	**5,000**	***16%***	**10,000**	***32%***	**1,400**
English regions									
East of England	2,100	2,500	300	*16%*	300	*16%*	700	*33%*	100
East Midlands	1,400	1,600	200	*16%*	200	*16%*	500	*33%*	100
London	1,700	2,000	300	*16%*	300	*16%*	600	*33%*	100
North East	400	400	100	*16%*	100	*16%*	100	*33%*	<100
North West	2,600	3,000	400	*16%*	400	*16%*	800	*33%*	100
South East	11,900	13,900	2,000	*16%*	1,900	*16%*	3,900	*33%*	600
South West	3,000	3,500	500	*16%*	500	*16%*	1,000	*33%*	100
West Midlands	1,600	1,900	300	*16%*	300	*16%*	500	*33%*	100
Yorkshire & The Humber	2,700	3,100	400	*16%*	400	*16%*	900	*33%*	100

Note: Figures may not sum to the grand total due to rounding.

4.2.7 Front Line Technical occupations have the largest core workforce requirement in Sewerage, requiring 3,700 people by 2032, equivalent to 35% of the current workforce.

4.2.8 Business Support occupations have the second-largest requirement at 3,300 people, including 1,700 new jobs and 1,600 retirements.

Figure 24: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 by broad occupational group

Broad Occupational Group	Total employment		New jobs created		Retirements		Core requirement for people		
	2025 baseline	2032	Number	*% Growth*	Number	*% of current workforce*	Total	*% of current workforce*	Average per year
Managerial	5,000	5,900	800	*16%*	900	*18%*	1,800	*35%*	300
Technical Professional	4,500	5,200	700	*16%*	500	*10%*	1,200	*27%*	200
Business Support	10,500	12,200	1,700	*16%*	1,600	*15%*	3,300	*31%*	500
Front Line Technical	10,500	12,200	1,700	*16%*	2,000	*19%*	3,700	*35%*	500
Other	100	100	<100	*16%*	<100	*17%*	<100	*33%*	<100
Water & Sewerage — Sewerage	**30,600**	**35,600**	**5,000**	*16%*	**5,000**	*16%*	**10,000**	*32%*	**1,400**

Note: Figures may not sum to the grand total due to rounding.

4.2.9 Figure shows demand is concentrated in a small number of occupations:

- Administrative Occupations — 1,400 people
- Process, Plant and Machine Operatives — 1,400 people
- Corporate Managers and Directors — 1,300 people
- Skilled Metal, Electrical and Electronic Trades — 900 people

Figure 25: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 by occupation

Skill level	Standard Occupation Classification	Total employment		New jobs created		Retirements		Core requirement for people		
		2025 baseline	2032	Number	% Growth	Number	% of current workforce	Total	% of current workforce	Average per year
RQF 7-8 SCQF 11-12	11 - Corporate Managers and Directors	3,700	4,300	600	16%	700	18%	1,300	35%	200
	12 - Other Managers and Proprietors	1,400	1,600	200	16%	300	18%	500	35%	100
RQF 6 SCQF 9-10	21 - Science, Research, Engineering and Technology Professionals	2,900	3,300	500	16%	300	10%	700	26%	100
	22 - Health Professionals	0	0	0	--	0	--	0	--	0
	23 - Teaching and Other Educational Professionals	0	0	0	--	0	--	0	--	0
	24 - Business, Media and Public Service Professionals	800	900	100	16%	100	13%	200	29%	<100
RQF 4-5 SCQF 7-8	31 - Science, Engineering and Technology Associate Professionals	1,600	1,800	300	16%	200	12%	500	28%	100
	32 - Health and Social Care Associate Professionals	0	0	0	--	0	--	0	--	0
	33 - Protective Service Occupations	0	0	0	--	0	--	0	--	0
	34 - Culture, Media and Sports Occupations	0	0	0	--	0	--	0	--	0
	35 - Business and Public Service Associate Professionals	1,800	2,100	300	16%	200	11%	500	28%	100
RQF 3 SCQF 6	41 - Administrative Occupations	4,200	4,900	700	16%	700	17%	1,400	33%	200
	42 - Secretarial and Related Occupations	500	600	100	16%	100	24%	200	40%	<100
	51 - Skilled Agricultural and Related Trades	0	0	0	--	0	--	0	--	0
	52 - Skilled Metal, Electrical and Electronic Trades	2,900	3,300	500	16%	400	15%	900	32%	100
	53 - Skilled Construction and Building Trades	600	700	100	16%	100	16%	200	32%	<100
	54 - Textiles, Printing and Other Skilled Trades	0	0	0	--	0	--	0	--	0
	61 - Caring Personal Service Occupations	0	0	0	--	0	--	0	--	0
	62 - Leisure, Travel and Related Personal Service Occupations	100	100	<100	16%	<100	17%	<100	33%	<100
	63 - Community and Civil Enforcement Occupations	0	0	0	--	0	--	0	--	0
RQF 2 SCQF 5	71 - Sales Occupations	0	0	0	--	0	--	0	--	0
	72 - Customer Service Occupations	1,000	1,100	200	16%	100	10%	300	27%	<100
RQF 1 SCQF 4	81 - Process, Plant and Machine Operatives	3,800	4,400	600	16%	700	19%	1,400	36%	200
	82 - Transport and Mobile Machine Drivers and Operatives	1,700	2,000	300	16%	500	26%	700	43%	100
	91 - Elementary Trades and Related Occupations	1,500	1,700	200	16%	300	18%	500	34%	100
	92 - Elementary Administration and Service Occupations	2,200	2,600	400	16%	300	16%	700	32%	100
Water & Sewerage — Sewerage		30,600	35,600	5,000	16%	5,000	16%	10,000	32%	1,400

Note: Figures may not sum to the grand total due to rounding.

4.3 Construction of Water Utility Projects

Figure 26: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 by sub-industry

Sub-Industry	Total employment		New jobs created		Retirements		Core requirement for people		
	2025 baseline	2032	Number	% Growth	Number	% of current workforce	Total	% of current workforce	Average per year
Water & Sewerage — Construction of Water Utility Projects	**5,500**	**15,500**	**10,000**	***183%***	**1,900**	***35%***	**11,900**	***218%***	**1,700**

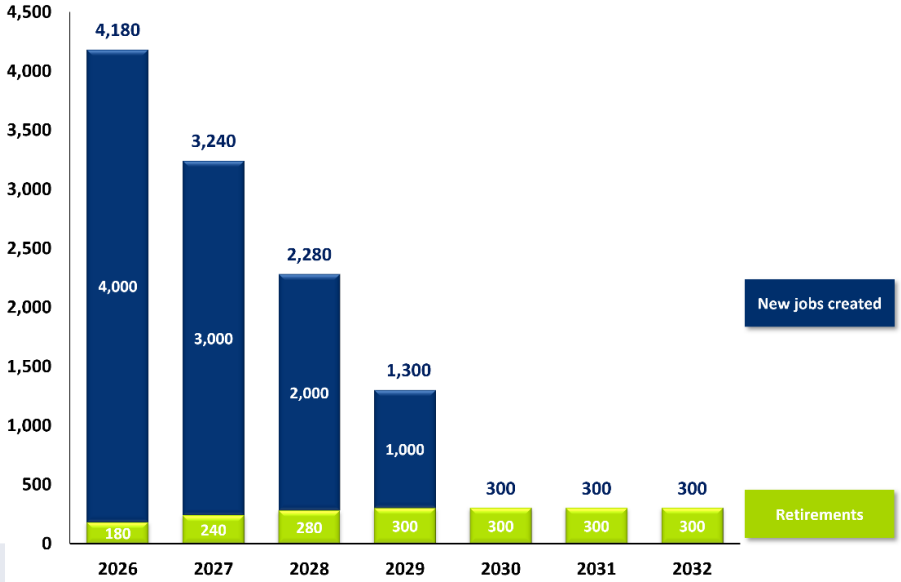
Note: Figures may not sum to the grand total due to rounding.

4.3.1 Construction of Water Utility Projects faces a significant growth-led workforce challenge. Employment increases from 5,500 to 15,500, creating 10,000 new jobs (183% growth). Including 1,900 retirements, the sub-industry has a core requirement for 11,900 people by 2032, equivalent to 218% of the current workforce.

4.3.2 Annual workforce demand is heavily front-loaded, falling from 4,180 people in 2026 to 1,300 in 2029, before stabilising at 300 people per year from 2030 onwards. This indicates that the greatest recruitment pressure is concentrated in the early years of the forecast period.

4.3.3 The decline in workforce demand is driven by new jobs created, which falls from 4,000 people in 2026 to zero from 2030 onwards. Retirements rise from 180 in 2026 to 300 from 2029 onwards, becoming the sole source of workforce demand from 2030.

Figure 27: Core requirement for people by year and cause



Note: Figures may not sum to the grand total due to rounding.

4.3.4 England accounts for the majority of the core workforce requirement in Construction of Water Utility Projects, requiring 8,900 of the 11,900 people needed by 2032

4.3.5 Scotland requires 2,000 people and Wales 900 people by 2032, while Northern Ireland requires around 100. Across all four nations, the core requirement is equivalent to 218% of the current workforce, reflecting the scale of workforce expansion required.

4.3.6 The East of England faces the largest regional workforce requirement, needing 2,300 people by 2032, followed by Yorkshire & The Humber (1,400) and London and the South East (1,100 each).

Figure 28: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 by nation and region

Nation & Region	Total employment		New jobs created		Retirements		Core requirement for people		
	2025 baseline	2032	Number	*% Growth*	Number	*% of current workforce*	Total	*% of current workforce*	Average per year
England	4,100	11,600	7,500	*183%*	1,400	*35%*	8,900	*218%*	1,300
Northern Ireland	<100	100	100	*183%*	<100	*35%*	100	*218%*	<100
Scotland	900	2,600	1,700	*183%*	300	*35%*	2,000	*218%*	300
Wales	400	1,200	800	*183%*	200	*35%*	900	*218%*	100
United Kingdom	**5,500**	**15,500**	**10,000**	***183%***	**1,900**	***35%***	**11,900**	***218%***	**1,700**
English regions									
East of England	1,100	3,000	1,900	*183%*	400	*35%*	2,300	*218%*	300
East Midlands	100	200	100	*183%*	<100	*35%*	100	*218%*	<100
London	500	1,400	900	*183%*	200	*35%*	1,100	*218%*	200
North East	100	300	200	*183%*	<100	*35%*	300	*218%*	<100
North West	400	1,000	700	*183%*	100	*35%*	800	*218%*	100
South East	500	1,400	900	*183%*	200	*35%*	1,100	*218%*	200
South West	500	1,300	900	*183%*	200	*35%*	1,000	*218%*	100
West Midlands	400	1,000	600	*183%*	100	*35%*	800	*218%*	100
Yorkshire & The Humber	700	1,800	1,200	*183%*	200	*35%*	1,400	*218%*	200

Note: Figures may not sum to the grand total due to rounding.

4.3.7 Front Line Technical occupations have the largest core workforce requirement, requiring 5,000 people by 2032.

4.3.8 Business Support occupations have the second-largest requirement at 4,000 people, comprising 3,400 new jobs and 600 retirements.

Figure 29: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 by broad occupational group

Broad Occupational Group	Total employment		New jobs created		Retirements		Core requirement for people		
	2025 baseline	2032	Number	*% Growth*	Number	*% of current workforce*	Total	% of current workforce	Average per year
Managerial	600	1,600	1,000	*183%*	200	*41%*	1,200	*224%*	200
Technical Professional	800	2,300	1,500	*183%*	200	*23%*	1,700	*206%*	200
Business Support	1,900	5,300	3,400	*183%*	600	*32%*	4,000	*214%*	600
Front Line Technical	2,200	6,400	4,100	*183%*	900	*41%*	5,000	*223%*	700
Other	0	0	0	--	0	--	0	--	0
Water & Sewerage — Construction of Water Utility Projects	**5,500**	**15,500**	**10,000**	***183%***	**1,900**	***35%***	**11,900**	***218%***	**1,700**

Note: Figures may not sum to the grand total due to rounding.

4.3.9 Figure shows demand is concentrated in a small number of occupations:

- Business, Media and Public Service Professionals — 1,800 people
- Skilled Construction and Building Trades — 1,500 people
- Administrative Occupations — 1,400 people
- Skilled Metal, Electrical and Electronic Trade — 1,300 people

Figure 30: Current workforce estimates and forecast number of new jobs created, retirements and the total core requirement for people by 2032 by occupation

Skill level	Standard Occupation Classification	Total employment		New jobs created		Retirements		Core requirement for people		
		2025 baseline	2032	Number	% Growth	Number	% of current workforce	Total	% of current workforce	Average per year
RQF 7-8 SCQF 11-12	11 - Corporate Managers and Directors	500	1,500	900	*183%*	200	*41%*	1,200	*224%*	200
	12 - Other Managers and Proprietors	<100	100	100	*183%*	<100	*41%*	100	*224%*	<100
RQF 6 SCQF 9-10	21 - Science, Research, Engineering and Technology Professionals	600	1,600	1,000	*183%*	100	*22%*	1,200	*204%*	200
	22 - Health Professionals	0	0	0	--	0	--	0	--	0
	23 - Teaching and Other Educational Professionals	0	0	0	--	0	--	0	--	0
	24 - Business, Media and Public Service Professionals	900	2,400	1,600	*183%*	300	*29%*	1,800	*211%*	300
RQF 4-5 SCQF 7-8	31 - Science, Engineering and Technology Associate Professionals	200	700	400	*183%*	100	*27%*	500	*210%*	100
	32 - Health and Social Care Associate Professionals	0	0	0	--	0	--	0	--	0
	33 - Protective Service Occupations	0	0	0	--	0	--	0	--	0
	34 - Culture, Media and Sports Occupations	0	0	0	--	0	--	0	--	0
	35 - Business and Public Service Associate Professionals	300	800	500	*183%*	100	*25%*	600	*208%*	100
RQF 3 SCQF 6	41 - Administrative Occupations	600	1,800	1,200	*183%*	200	*38%*	1,400	*220%*	200
	42 - Secretarial and Related Occupations	0	0	0	--	0	--	0	--	0
	51 - Skilled Agricultural and Related Trades	0	0	0	--	0	--	0	--	0
	52 - Skilled Metal, Electrical and Electronic Trades	600	1,700	1,100	*183%*	200	*34%*	1,300	*217%*	200
	53 - Skilled Construction and Building Trades	700	1,900	1,200	*183%*	200	*36%*	1,500	*219%*	200
	54 - Textiles, Printing and Other Skilled Trades	0	0	0	--	0	--	0	--	0
	61 - Caring Personal Service Occupations	0	0	0	--	0	--	0	--	0
	62 - Leisure, Travel and Related Personal Service Occupations	0	0	0	--	0	--	0	--	0
	63 - Community and Civil Enforcement Occupations	0	0	0	--	0	--	0	--	0
RQF 2 SCQF 5	71 - Sales Occupations	<100	<100	<100	*183%*	100	*32%*	<100	*215%*	<100
	72 - Customer Service Occupations	0	0	0	--	0	--	0	--	0
RQF 1 SCQF 4	81 - Process, Plant and Machine Operatives	200	600	400	*183%*	100	*43%*	400	*226%*	100
	82 - Transport and Mobile Machine Drivers and Operatives	400	1,100	700	*183%*	200	*59%*	900	*242%*	100
	91 - Elementary Trades and Related Occupations	400	1,100	700	*183%*	200	*40%*	900	*222%*	100
	92 - Elementary Administration and Service Occupations	100	200	100	*183%*	<100	*36%*	100	*219%*	<100
Water & Sewerage — Construction of Water Utility Projects		**5,500**	**15,500**	**10,000**	***183%***	**1,900**	***35%***	**11,900**	***218%***	**1,700**

Note: Figures may not sum to the grand total due to rounding.

5 Future labour supply

5.1 The UK population

5.1.1 These population projections are based on assumptions about fertility, mortality and migration. They are not forecasts of future government policy, economic conditions or global events. The principal long-term assumptions are:

- annual net international migration of 230,000 from mid-2027 onwards;
- long-term fertility of 1.42 children per woman;
- continuing improvements in mortality.

5.1.2 The 2024-based projections indicate that the UK population is projected to remain broadly stable through to 2040. However, this stability masks two labour supply pressures:

- declining birth rates, resulting in fewer young people entering the workforce;
- continued reliance on migration to sustain population growth and the working-age population.

5.1.3 These pressures become increasingly apparent after 2030, particularly in sectors with ageing workforces and long training lead times.

5.2 Falling birth rates and the domestic entrant pipeline

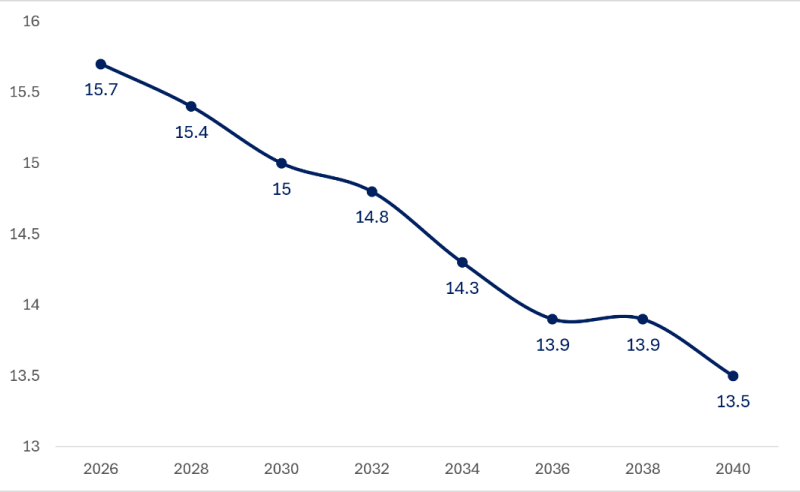
5.2.1 Birth rates in England and Wales have fallen steadily since the early 2010s. The total fertility rate declined from 1.94 children per woman in 2012 to 1.39 in 2025, including a fall from 1.41 in 2024.[3]

5.2.2 These lower birth rates will directly affect workforce entrants during the period covered by this analysis:

- people entering employment at age 18 in 2032 were born in 2014;
- those entering at age 18 in 2040 were born in 2022;
- young people entering apprenticeships at age 16 between 2032 and 2040 were born approximately between 2016 and 2024.

5.2.3 Reflecting these demographic trends, the number of people aged under 20 is projected to fall from 15.7 million in 2026 to 13.5 million by 2040.

Figure 31: Population projections for people aged 0-19 from 2026 to 2040 in millions[4]



[3] Births in England and Wales: 2025, ONS, September 2026

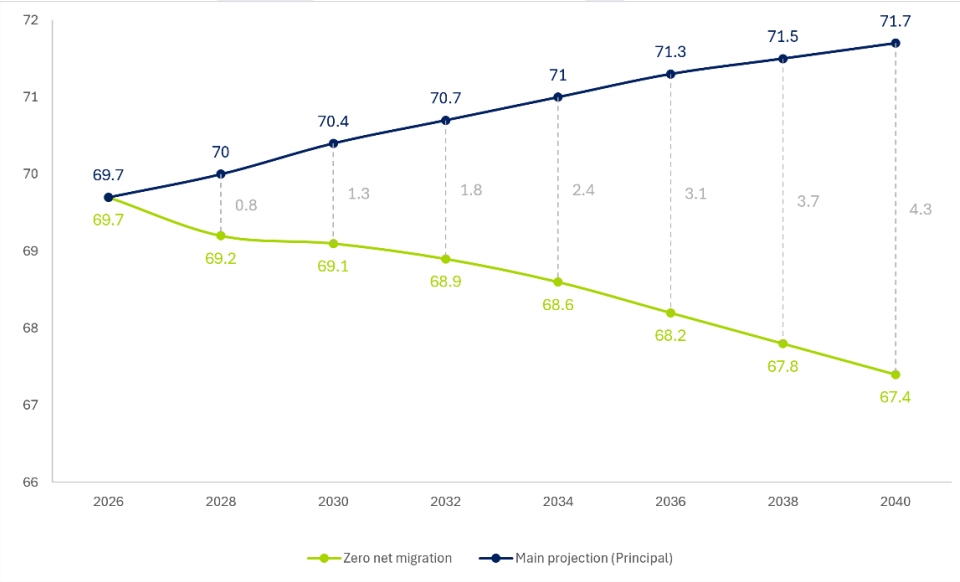
[4] UK Population Projection Explorer, ONS, April 2026

5.2.4 This decline indicates that fewer young people will be available to enter employment and training during the 2030s, resulting in a tighter domestic talent pipeline. As a result, workforce demand will increasingly need to be met through higher retention, retraining, productivity improvements and, where appropriate, migration.

5.3 Migration and sustaining the working-age population

5.3.1 Under the principal projection, migration is the sole source of long-term population growth. The UK population is projected to increase from around 69.7 million in mid-2026 to 71.6 million by 2040.

Figure 32: UK population projections under principal and zero net migration scenarios from 2026 to 2040 with the widening population gap shown in millions[5]



5.3.2 Under the zero net migration variant, the population begins to decline as deaths exceed births, falling towards 67 million by 2040. This illustrates the extent to which future population growth is dependent on migration.

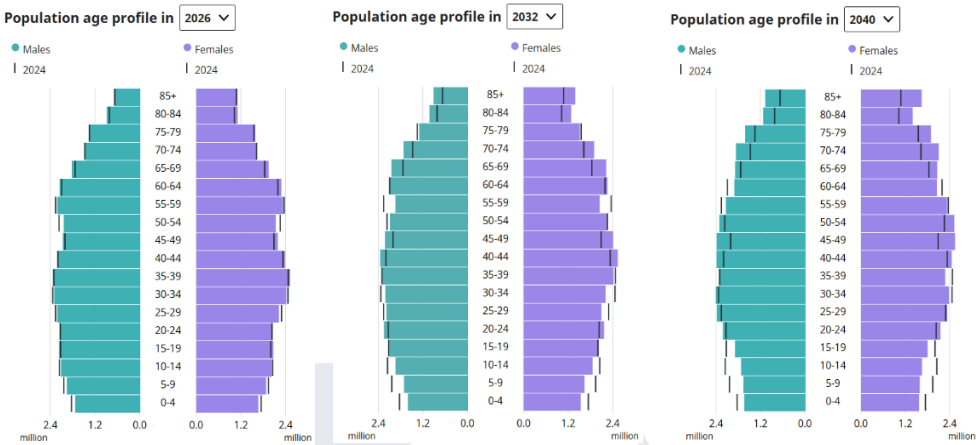
5.3.3 In 2025, there was an estimated net migration of 204,000.[6] This was two-thirds lower than a year earlier (649,000). Net migration remains an important contributor to population and workforce growth, but the decline from 649,000 to 204,000 within a year demonstrates that migration flows can change rapidly in response to policy, economic and international factors. This introduces uncertainty for sectors that rely heavily on migration to meet workforce requirements.

5.3.4 Figure illustrates how the UK's age structure is projected to change between 2026 and 2040. The base of the population pyramid narrows over time, reflecting lower birth rates and a reduced flow of future labour market entrants. At the same time, older age groups become larger as life expectancy improves and larger cohorts move into later life. The working-age population remains substantial throughout the projection period, but its age profile shifts upwards. This suggests that workforce pressures are likely to arise less from an overall shortage of people and more from increasing replacement demand as larger cohorts approach retirement while fewer younger workers enter the labour market.

[5] UK Population Projection Explorer, ONS, April 2026

[6] Long-term international migration, provisional: year ending June 2025, ONS, May 2026

Figure 33: UK population age profile, 2026, 2032 and 2040[7]



5.4 Implications for the sector

5.4.1 Future labour supply will be shaped by a narrowing domestic entrant pipeline and continued reliance on migration.

5.4.2 As the youth population declines, energy and utilities employers will face growing competition for engineering and technical talent from construction, advanced manufacturing, transport, defence, digital and wider infrastructure sectors.

5.4.3 Migration can also provide targeted labour supply in occupations facing shortages. The Migration Advisory Committee found that sponsored engineering workers are concentrated in younger age groups, particularly between ages 26 and 35, while the domestic engineering workforce is more evenly distributed across the working-age population.[8]

5.4.4 Migration can also help where training lead times are long, skills are internationally transferable and recruitment supports time-limited infrastructure delivery. However, it is should not be considered a substitute for sustained domestic workforce development.

5.4.5 The principal workforce challenge from 2032 onwards is therefore not overall population decline, but the interaction of four factors:

- a smaller domestic entrant pipeline;
- high replacement demand from an ageing workforce;
- increasing competition for technical skills;
- continued dependence on migration to sustain labour supply.

[7] UK Population Projection Explorer, ONS, April 2026

[8] Professionals in IT and engineering, Migration Advisory Committee, May 2025

6 Potential economic and social benefits

6.1.1 Attracting and recruiting the required 40,000 people could cost the industry an estimated £163 million just in recruitment costs alone[9] (excluding any additional training or other costs incurred once new recruits are on-boarded).

6.1.2 However, the economic benefits to the industry and to UK PLC are significantly higher.

6.1.3 Assuming that each of the 25,000 additional people in the workforce earns the median salary for their occupation[10], this could create an estimated £1 billion of additional earnings entering the economy by 2032. Approximately 18% of this - c£187 million - would be paid out to the 6,100 new recruits in entry-level occupations.

Figure 34: Estimated additional salaries paid out to new recruits by 2032

Skill level	Standard Occupational Classification	Additional jobs by 2032	Median Salary	New Income Generated
RQF 7-8 SCQF 11-12	11 - Corporate Managers and Directors	2,100	£63,350	£131,134,500
	12 - Other Managers and Proprietors	700	£40,799	£27,539,325
RQF 6 SCQF 9-10	21 - Science, Research, Engineering and Technology Professionals	3,000	£52,297	£156,368,030
	22 - Health Professionals	0	£46,131	£0
	23 - Teaching and Other Educational Professionals	0	£47,479	£0
	24 - Business, Media and Public Service Professionals	2,900	£49,513	£143,587,700
RQF 4-5 SCQF 7-8	31 - Science, Engineering and Technology Associate Professionals	1,700	£35,945	£61,106,500
	32 - Health and Social Care Associate Professionals	0	£29,652	£0
	33 - Protective Service Occupations	0	£42,806	£0
	34 - Culture, Media and Sports Occupations	<100	£36,510	£365,100
	35 - Business and Public Service Associate Professionals	1,900	£41,404	£76,597,400
RQF 3 SCQF 6	41 - Administrative Occupations	2,800	£30,787	£85,433,925
	42 - Secretarial and Related Occupations	200	£28,388	£4,542,080
	51 - Skilled Agricultural and Related Trades	<100	£28,980	£289,800
	52 - Skilled Metal, Electrical and Electronic Trades	2,100	£39,942	£85,475,880
	53 - Skilled Construction and Building Trades	1,600	£35,764	£55,970,660
	54 - Textiles, Printing and Other Skilled Trades	100	£29,208	£1,752,480
	61 - Caring Personal Service Occupations	<100	£26,859	£268,590
	62 - Leisure, Travel and Related Personal Service Occupations	<100	£27,911	£279,110
	63 - Community and Civil Enforcement Occupations	0	£32,945	£0
RQF 2 SCQF 5	71 - Sales Occupations	200	£26,121	£4,440,570
	72 - Customer Service Occupations	800	£28,485	£23,357,700

[9] Based on recruitment costs of: Managerial = £9,000; Technical Professional = £6,000; Front Line Technical = £3,500; Business Support = £2,100; Other = £2,000.

[10] Source: Earnings and hours worked, occupation by four-digit SOC: ASHE Table 14, 23rd October 2025.

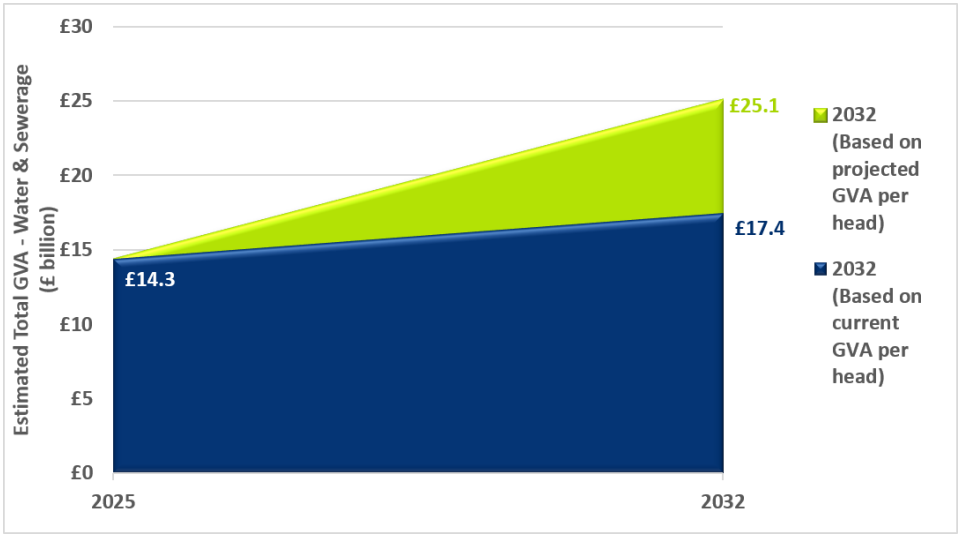
Skill level	Standard Occupational Classification	Additional jobs by 2032	Median Salary	New Income Generated
RQF 1 SCQF 4	81 - Process, Plant and Machine Operatives	2,300	£31,158	£70,884,450
	82 - Transport and Mobile Machine Drivers and Operatives	1,100	£36,869	£42,215,005
	91 - Elementary Trades and Related Occupations	1,100	£28,259	£29,954,540
	92 - Elementary Administration and Service Occupations	600	£27,486	£16,629,030
Water & Sewerage		**25,000**		**£1,018,192,375**

Note: Figures may not sum to the grand total due to rounding.

6.1.4 An approximate estimate of the total GVA of the water & sewerage industry in 2025 is £14 billion (based on output per worker in the water and water industry multiplied by the total workforce).

6.1.5 By 2032, total GVA could reach between £17 billion (based on 2025 output per worker) and £25 billion (based on annual growth of 9% in output per worker – continuing the growth trajectory seen over the past five years)[11].

Figure 35: Estimated total GVA created by the Water & Sewerage industry (£ billions)



[11] Energy & Utility Skills' estimate of GVA per head in the Water & Sewerage industry is based on Output per job, UK, ONS, 18th August 2026 and headcount estimates produced for this analysis.

7 Conclusions

7.1.1 The water and sewerage industry faces a substantial workforce challenge over the period to 2032. The workforce is projected to grow from 92,000 to 117,000, creating 25,000 additional jobs. Combined with around 15,000 retirements, the industry has a core requirement for 40,000 people over the forecast period, equivalent to 43% of the current workforce and an average of 5,700 people per year.

7.1.2 This core requirement is heavily front-loaded, with all forecast new jobs created occurring before the end of AMP8. Demand falls from 11,900 people in 2026 to 4,700 in 2029 and 2,200 per year from 2030, when retirements become the sole driver of the core requirement. In addition, staff turnover could create a further 20,100 vacancies by 2032 if people leave the industry for employment elsewhere or overseas, emphasising the importance of retention alongside attraction.

7.1.3 The scale and nature of workforce demand varies considerably between sub-industries. Water Collection, Treatment and Supply has the largest core requirement, requiring 18,100 people by 2032, followed by Construction of Water Utility Projects at 11,900 and Sewerage at 10,000. Construction of Water Utility Projects faces by far the greatest relative challenge, with its core requirement equivalent to 218% of the current workforce, driven primarily by the creation of 10,000 additional jobs.

7.1.4 Demand is distributed across the UK but varies across nations and regions. England accounts for 32,600 of the 40,000 people in the core requirement, while Scotland faces the greatest relative challenge among the four nations, requiring 4,200 people, equivalent to 55% of its current workforce. At regional level, the South East has the largest requirement at 7,000 people, followed by the East of England at 4,900 and the South West at 4,300.

7.1.5 Professional, technical and vocational skills remain central to delivery. Demand is greatest at RQF Level 3 / SCQF Level 6, where 10,500 people are required by 2032, followed by RQF Level 1 at 9,300 and RQF Level 6 at 8,300. Together, these three qualification levels account for 28,100 of the 40,000 people in the core requirement. New jobs created exceeds retirements at every qualification level, highlighting the importance of expanding skills pipelines alongside replacing those retiring from the workforce.

7.1.6 Business Support occupations account for the largest workforce requirement, with 14,600 people needed by 2032. Front Line Technical occupations have the second-largest requirement at 13,600 and face the greatest relative pressure among the main occupational groups, with demand equivalent to 52% of the current workforce. Together, these occupational groups account for more than two-thirds of the industry's core requirement.

7.1.7 Four occupational groups are assessed as critical to delivery:

- Science, Research, Engineering and Technology Professionals
- Skilled Metal, Electrical and Electronic Trades
- Science, Engineering and Technology Associate Professionals
- Skilled Construction and Building Trades

7.1.8 These critical occupational groups are forecast to create 8,400 additional jobs and require 12,200 people to enter their workforces by 2032. A further eight occupational groups are assessed as high priority. Together, critical and high-priority occupational groups account for around 23,200 additional jobs and require more than 36,500 people to enter their workforces, demonstrating the concentration of workforce pressure in occupations central to infrastructure and operational delivery.

7.1.9 At a more detailed level, four occupations are identified as critical priorities: electricians and electrical fitters, electrical engineers, civil engineers, and construction and building trades supervisors. Together, they are forecast to create 3,000 additional jobs and require 4,200 people by 2032, with electricians and electrical fitters having the largest requirement at 1,500 people. Chemical scientists, biological scientists and environment professionals are also identified as critical to future success but require relatively small numbers.

7.1.10 Future labour supply is likely to become more constrained as the domestic entrant pipeline narrows. The number of people aged under 20 is projected to fall from 15.7 million in 2026 to 13.5 million by 2040, while the industry will continue to compete with other sectors for engineering and technical talent. Migration can help address occupation-specific shortages, particularly where training lead times are long, but is unlikely to substitute for sustained domestic workforce development.

7.1.11 AI and automation are expected to change how work is undertaken more than overall employment levels. Seven occupational groups, with a combined core requirement for 7,700 people, are identified as at risk of workforce-demand reduction. Under the high-adoption scenario, the analysis indicates a potential reduction of up to approximately 1,540 workers from this requirement. Across much of the workforce, however, technology is more likely to reshape tasks, skills and working practices or augment workforce capability, increasing the importance of digital and analytical skills alongside continued demand for technical and engineering workers.

7.1.12 No single recruitment or training route can deliver the number and mix of people required. Industry will need to use a range of entry pathways, including sector-entry programmes, apprenticeships, graduate programmes, industry transitions, experienced-hire recruitment and internal progression. Lead times to competence mean that expanding some pipelines will not meet immediate demand, making the transition of experienced workers, development of the existing workforce and retention of skills particularly important.

7.1.13 Meeting this workforce requirement would also bring substantial economic benefits. Recruiting the 40,000 people represented by the core requirement and potential additional turnover vacancies is estimated to cost around £163 million before training and onboarding costs. The 25,000 additional jobs are estimated to generate approximately £1 billion in additional earnings, while the industry's total GVA could increase from approximately £14.3 billion in 2025 to between £17.4 billion and £25.1 billion by 2032.

7.1.14 The workforce requirement is therefore both a significant delivery challenge and an important economic opportunity. Meeting it will require coordinated action to attract new people, expand safe routes to competence, retain experience and critical knowledge, and use technology responsibly to increase delivery capacity. Workforce investment will need to be planned alongside infrastructure investment if the industry is to maintain essential services and deliver its future investment programme.

8 Call to action

8.1 Ambition, growth and opportunity

8.1.1 The UK's water industry is entering a period of significant investment and transformation. Water and wastewater companies must maintain safe and reliable services while addressing some of the most important environmental, social and economic challenges facing the country.

8.1.2 The industry is expected to deliver major programmes of work to improve river and coastal water quality, reduce pollution incidents, maintain drinking water quality, improve resilience to drought and flooding, reduce leakage, support population growth and enable sustainable economic development. At the same time, companies must continue to operate and maintain essential infrastructure that millions of households and businesses rely upon every day.

8.1.3 Delivering this ambition will require a skilled, productive and adaptable workforce. The challenge is not simply one of replacing retiring workers or filling vacancies. It is about ensuring that the industry has the capability, capacity and competence required to design, construct, operate and maintain increasingly complex water and wastewater systems.

8.1.4 The opportunity extends across every nation and region of the UK. It includes engineering, science, environmental management, operations, construction, project delivery, digital and data professions, skilled technical trades and a wide range of supporting occupations. It creates opportunities for young people entering the labour market, experienced workers progressing within the sector, people transitioning from related industries and those who have traditionally faced barriers to employment.

8.1.5 Workforce investment must be treated as a critical enabler of industry outcomes rather than a consequence of them. Infrastructure investment and workforce investment must be planned together. Employers, governments, regulators, education and skills providers, professional bodies and supply-chain partners all have a role to play in ensuring that workforce capability grows at the pace required.

8.1.6 The commitments that follow bring together three interconnected themes:

- **Ambition**: delivering safe, reliable and sustainable water and wastewater services while meeting environmental, regulatory and economic objectives.
- **Growth**: ensuring the industry has the workforce capacity and capability required to deliver future investment and operational requirements.
- **Opportunity**: creating pathways that enable people and communities across the UK to access rewarding, long-term careers in the water sector.

8.1.7 This approach reflects the four interconnected pillars of the Skills Strategy 2025–2030:

- **Research:** developing the insight, evidence and intelligence needed to understand workforce demand, identify emerging challenges and support informed decision-making
- **Attract:** raising awareness of sector careers, broadening access to opportunities and attracting the diverse talent needed to meet future workforce requirements
- **Develop:** supporting the continuous development of a safe, skilled and productive workforce through learning, progression and skills development

- **Retain:** creating the conditions for people to build long-term careers within the sector by supporting inclusion, progression, wellbeing and workforce resilience

8.1.8 Equality, Diversity and Inclusion, AI and Technology, and Productivity provide cross-cutting themes through which activity under the four pillars should be considered.

8.2 Safety is the foundation of delivery

8.2.1 Safety and occupational competence must remain the foundation of workforce growth. They are not barriers to expansion, new entry routes, productivity improvement or technological change. They are the conditions that enable these changes to be delivered responsibly and sustainably.

8.2.2 Engineering professionals, engineering technicians and skilled electrical trades are among the occupations most critical to delivery. Together, these occupational groups will require around 12,200 new entrants by 2032. Many of these roles demand specialist expertise, recognised competence and substantial periods of training and workplace development.

8.2.3 Expanding the workforce must not dilute occupational standards, reduce the quality of training or lead to people being deployed before they are competent. Employers must also avoid placing unsustainable pressure on the trainers, assessors, mentors and supervisors responsible for supporting new entrants and developing the existing workforce.

8.2.4 The same principle applies to artificial intelligence, automation and other digital technologies. Technology should be adopted where it can improve safety, quality, productivity or service. However, safety-critical and regulatory decisions must remain subject to clear human accountability. Data, models and automated outputs must be appropriately validated and assured, and affected workers must be supported to develop the capabilities required by redesigned roles.

8.3 Five commitments for delivery

8.3.1 The scale and timing of demand mean that no single organisation can close the workforce gap independently. Employers must lead, supported by coordinated action from supply-chain organisations, governments, regulators, education and skills providers, trade unions, professional and standards bodies, and the Energy & Utility Skills Partnership.

Commitment 1: Plan and invest against evidenced workforce demand

8.3.2 The workforce requirement is immediate, significant and unevenly distributed. Demand varies by occupation, sub-industry, region and year.

8.3.3 Employers and supply-chain organisations should convert the forecasts into practical, funded and regularly updated workforce plans covering:

- Critical occupations and job roles
- Annual and regional demand
- Recruitment, retention and progression
- Routes to occupational competence
- Training, supervision, mentoring and assessment capacity

- Dependencies on suppliers, contractors and other infrastructure sectors

8.3.4 Plans should be reviewed as investment profiles, delivery schedules and labour-market conditions change. Regulation, price controls, procurement and contracting arrangements should give employers and their supply chains sufficient visibility and certainty to invest ahead of demand.

8.3.5 Primary ownership sits with:

- **Employers and supply-chain organisations** should produce, fund and deliver workforce plans
- **Governments and regulators** should align policy, regulation, investment and contracting arrangements with credible workforce delivery
- **The Energy & Utility Skills Partnership** should maintain the shared evidence base and provide a consistent framework for workforce planning

8.3.6 Alignment with the 2025-2030 Skills Strategy and EUSP CEO Council 2026/27 priorities:

- This commitment principally supports the **Research** pillar. It also supports the **Develop** and **Retain** pillars because effective workforce plans must address competence, progression and retention
- It directly aligns with the priorities to:
  - Update workforce demand estimates so that industry and government plan using one set of workforce-planning assumptions (**G2**)
  - Champion workforce and skills decisions based on nationally recognised, employer-informed evidence (**P1**)
  - Use industry evidence to inform regulation, price controls and contracting periods for long-term workforce planning (**UK1**)
- It also supports the wider priorities to maintain a current research programme (**G3**) and strengthen evidence-led workforce planning through partnership (**P2**)

Commitment 2: Expand safe routes to competence

8.3.7 Demand is concentrated in technical and vocational occupations. Apprenticeship and graduate routes cannot meet the earliest demand on their own because some pathways take three years or more to produce an occupationally competent worker.

8.3.8 Employers, education and skills providers, governments and standards bodies should jointly increase the capacity and range of routes into competent employment by:

- Increasing apprenticeship and graduate provision in critical occupations
- Expanding trainer, assessor, mentor, supervisor, facility and placement capacity
- Scaling sector-entry programmes linked to genuine vacancies and progression opportunities
- Developing funded modular provision aligned with sector-specific occupational requirements
- Creating progression routes for experienced workers whose capability is not fully represented by prior academic attainment
- Supporting career transitions from sectors with transferable skills
- Using targeted migration where urgent shortages cannot be filled domestically within the required timeframe

8.3.9 Every pathway must lead towards clearly defined occupational competence. Faster entry must not mean weaker standards or premature deployment into safety-critical work.

8.3.10 Primary ownership sits with:

- **Employers** should provide vacancies, placements, mentors, assessors and progression opportunities
- **Education and skills providers** should expand responsive provision and demonstrate how learning leads to recognised competence
- **Governments** should improve the flexibility, accessibility and consistency of skills funding across the UK
- **Regulators, professional bodies and standards organisations** should protect competence and quality while enabling proportionate innovation in delivery
- **The Energy & Utility Skills Partnership** should coordinate occupational profiles, standards, pathway design and cross-sector transferability

8.3.11 Alignment with the 2025-2030 Skills Strategy and EUSP CEO Council 2026/27 priorities:

- This commitment principally supports the **Develop** pillar. It also supports **Attract**, by creating credible entry routes, and **Retain**, by enabling progression and continued development.
- It directly aligns with the priorities covering:
  - Occupational profiles and occupational mapping (**G6**)
  - Standards and workforce competence (**G7**)
  - Expansion of Sector Entry provision and learner places (**P6**)
  - Flexible routes towards RQF Level 3 competence through apprenticeship units (**P7**)
  - Protection of safety and competence during apprenticeship reform (**UK2**)
  - Alternative progression routes for experienced workers into RQF Level 4 and above (**UK5**)
  - Simpler and more consistent apprenticeship funding, administration and delivery (UK6)
  - Removal of disincentives for frontline workers to become trainers and assessors (**UK7**)
- It also supports:
  - Development of a Youth Guarantee model (**G8**)
  - Effective use of skills investment and the levy (**P8**)
  - Sustainable routes from economic inactivity and unemployment into the sector (**UK3**)
  - Place-based adult skills investment (**UK4**)
  - Pathways for skilled workers moving from other industries (**P10**)

Commitment 3: Retain experience and widen access to opportunity

8.3.12 Employers should treat retention, succession and knowledge transfer as essential infrastructure-delivery activities by:

- Identifying retirement and turnover exposure in critical roles
- Strengthening career development and internal progression
- Protecting time for experienced workers to train and mentor others

- Improving job quality, inclusion, wellbeing and workforce experience
- Retaining unsuccessful applicants and displaced workers within the wider sector talent pool
- Opening routes for people who are unemployed, economically inactive, under-represented or moving from other industries

8.3.13 UK-wide action should be combined with place-based delivery so that people can access genuine vacancies, appropriate support and clear progression from entry-level roles into skilled employment.

8.3.14 Primary ownership sits with:

- **Employers** should improve retention, succession, progression and knowledge transfer
- **Governments and public employment services** should connect employment, welfare, careers and skills policy to evidenced sector demand
- **Education and skills providers** should create accessible entry and progression pathways that reflect regional labour markets
- **The Energy & Utility Skills Partnership** should coordinate talent referral, inclusion, attraction and cross-sector transition activity

8.3.15 Alignment with the 2025-2030 Skills Strategy and EUSP CEO Council 2026/27 priorities:

- This commitment principally supports the **Retain** and **Attract** pillars. It also supports **Develop** through mentoring, knowledge transfer and career progression.
- It directly aligns with the priorities to:
  - Retain skilled people and unsuccessful candidates within the sector and its supply chains (**G9**)
  - Launch the evaluated Inclusion Measurement Framework, supported by best practice and recommendations (**P9**)
  - Create pathways for skilled workers moving from industries undergoing programme-driven transitions (**P10**)
  - Reduce economic inactivity and unemployment while strengthening progression from entry-level roles into apprenticeships and skilled occupations (**UK3**)
- It also supports:
  - Development of the Youth Guarantee model (**G8**)
  - Access to careers, routes, tools and insight through the sector platform (**P4**)
  - Inclusive attraction and recruitment activity through Destination Energy (**P5**)
  - Progression by experienced workers into higher-level opportunities (**UK5**)
  - The use of experienced workers as trainers and assessors (**UK7**)

Commitment 4: Adopt technology responsibly to increase safe delivery capacity

8.3.16 Digital technologies, automation, artificial intelligence, smart assets, advanced monitoring systems and digital twins are expected to change tasks, skills and working practices across the water industry. Many technologies have the potential to improve operational performance, environmental outcomes, customer service and workforce productivity. However, technology should augment workforce capability rather than be viewed solely as a substitute for labour.

8.3.17 Employers should adopt AI, automation and digital technologies where they can demonstrably improve delivery. Implementation should be governed by:

- Task-level assessment of safety, competence and operational risk
- Workforce involvement in workflow and job redesign
- Clear human accountability for safety-critical and regulatory decisions
- Validation and assurance of data, models and automated outputs
- Structured reskilling and redeployment
- Measurement of productivity, quality, safety and service outcomes.

8.3.18 Where technology releases capacity, employers should seek to redirect it towards higher-value, safety-critical or shortage-constrained work. Adoption should respond to clearly defined operational needs rather than an assumption that technology automatically substitutes for labour.

8.3.19 Primary ownership sits with:

- **Employers** should select appropriate use cases, manage risk, redesign work and reskill affected workers
- **Regulators** should establish clear and proportionate expectations for assurance, accountability and evidence
- **Education and skills providers** should embed relevant digital and AI capabilities within technical and professional learning
- **The Energy & Utility Skills Partnership** should gather evidence, share effective practice and identify common implications for occupations, standards and workforce planning

8.3.20 Alignment with the 2025-2030 Skills Strategy and EUSP CEO Council 2026/27 priorities:

- This commitment principally supports the **Develop** pillar because it addresses new capabilities, occupational competence, reskilling and the redesign of work.

  It also supports **Research**, through evidence and workforce intelligence, and **Retain**, where reskilling and redeployment allow people to continue contributing within the sector.
- The commitment also advances the Skills Strategy's cross-cutting themes of **AI and Technology** and **Productivity**. These are cross-cutting themes rather than additional strategic pillars.
- No single 2026/27 priority corresponds directly and comprehensively to responsible AI and automation adoption. The commitment nevertheless supports the priorities covering:
  - Research and evidence needed to identify emerging workforce challenges (**G3**)
  - Occupational profiles and occupational mapping (**G6**)
  - Continuous improvement in standards and workforce competence (**G7**)
  - Workforce and skills decisions based on employer-informed evidence (**P1**)
  - Investment in skills and improved productivity (**P8**)
  - Protection of competence and safety as skills provision changes (**UK2**)
- This supporting alignment should not be interpreted as making any one of these priorities a standalone AI or automation priority

Commitment 5: Champion the people delivering the UK's future

8.3.21 Workforce growth will depend not only on creating opportunities but also on making those opportunities visible, credible and attractive. The industry and its partners should champion, amplify and celebrate the people and teams who design, manufacture, build, operate and maintain the UK's water and sewerage infrastructure.

8.3.22 This should include:

- Creating a shared, evidence-led account of the contribution made by the Water & Sewerage workforce
- Using authentic stories from employees, apprentices, career changers, trainers, mentors and supply-chain teams
- Showcasing the breadth of technical, professional, operational and support careers available across the UK
- Recognising employers and partnerships that widen access, uphold competence and improve workforce experience
- Connecting communications to genuine jobs, training, work experience and progression opportunities
- Making careers information accessible to young people, educators, careers advisers, jobseekers and workers in transition
- Measuring whether activity improves awareness, engagement and entry into the industry, rather than reporting communications reach alone.

8.3.23 This is more than a communications commitment. It supports attraction by showing people where opportunities exist, development by making pathways and competence requirements clear, and retention by recognising the contribution of the existing workforce and demonstrating that the industry offers meaningful, long-term careers.

8.3.24 Primary ownership sits with:

- **Employers and supply-chain organisations** should provide authentic workforce stories, career information and examples of effective practice
- **Trade unions, employee networks and workforce representatives** should help ensure that communications accurately reflect the work and the workforce experience
- **Education, careers and employment partners** should bring these messages to schools, colleges, universities, jobseekers and local communities
- **The Energy & Utility Skills Partnership** and sector communications networks should coordinate and amplify a consistent industry narrative

8.3.25 Alignment with the 2025-2030 Skills Strategy and EUSP CEO Council 2026/27 priorities:

- This commitment principally supports the **Attract** pillar

  It also supports **Retain**, through recognition and an authentic employee proposition, and **Develop**, by explaining career pathways, progression and competence requirements
- It directly aligns with the priorities to:
  - Align communications and marketing with the agreed CEO Council priorities (**G10**)
  - Deliver coordinated sector attraction and recruitment activity through Destination Energy (**P5**)

- It also supports the priorities to:
  - Deepen partnerships and clarify engagement routes (**G4**)
  - Support worker transitions through the North Sea Worker service (**G5**)
  - Use occupational profiles to make careers and pathways clearer (**G6**)
  - Retain candidates and skilled people within the sector talent pool (**G9**)
  - Provide access to careers, routes, tools and insight through the sector platform (**P4**)
  - Promote inclusive workforce practice and recommendations (**P9**)
  - Make transition pathways visible to workers in adjacent industries (**P10**)
  - Strengthen entry routes and progression from economic inactivity or unemployment into skilled work (**UK3**)

Summary of strategic alignment

8.3.26 The following table distinguishes between:

- **Direct alignment:** the commitment would materially contribute to delivery of the priority
- **Supporting alignment:** the commitment contributes to the priority but would not deliver it by itself

Commitment	2025-2030 Skills Strategy alignment	EUSP CEO Council 2026/27 priority alignment (Direct)	EUSP CEO Council 2026/27 priority alignment (Supporting)
1. Plan and invest against evidenced workforce demand	**Primary:** Research. **Supporting:** Develop and Retain.	G2, P1, UK1	G3, P2
2. Expand safe routes to competence	**Primary:** Develop. **Supporting:** Attract and Retain.	G6, G7, P6, P7, UK2, UK5, UK6, UK7	G8, P8, UK3, UK4, P10
3. Retain experience and widen access to opportunity	**Primary:** Retain and Attract. **Supporting:** Develop.	G9, P9, P10, UK3	G8, P4, P5, UK5, UK7
4. Adopt technology responsibly to increase safe delivery capacity	**Primary:** Develop. **Supporting:** Research and Retain. **Cross-cutting:** AI and Technology; Productivity.	No single priority directly covers the full commitment	G3, G6, G7, P1, P8, UK2
5. Champion the people delivering the UK's future	**Primary:** Attract. **Supporting:** Retain and Develop.	G10, P5	G4, G5, G6, G9, P4, P9, P10, UK3

8.3.27 The mapping identifies the priorities to which each commitment makes the clearest direct or supporting contribution. It does not imply that a commitment is solely responsible for delivering those priorities. The four pillars are interconnected, and action under one commitment may contribute to outcomes across more than one pillar.

8.4 The immediate commitment

8.4.1 The workforce requirement is not a distant 2032 issue. There are significant, immediate workforce requirements, while many technical and professional pathways can take years to produce an occupationally competent worker.

8.4.2 The industry and its partners should therefore commit now to:

1. **Produce funded workforce and supply-chain plans** for critical occupations, regions and delivery programmes
2. **Expand training, supervision, mentoring and assessment capacity** ahead of demand
3. **Scale entry, progression and transition routes** without weakening competence or safety standards
4. **Retain experienced workers and protect critical knowledge** through succession planning, progression and mentoring
5. **Adopt AI, automation and digital technologies responsibly**, with clear human accountability
6. **Champion the people and opportunities behind network investment**, connecting communications to genuine jobs, training and careers
7. **Report progress collectively**, using shared workforce outcomes and escalating barriers that individual organisations cannot resolve

8.4.3 By their next workforce-planning cycle, major employers and participating supply-chain organisations should be able to demonstrate how their plans:

- Respond to evidenced occupational demand
- Increase routes to competence
- Protect safety
- Expand delivery capacity
- Support retention

8.4.4 The industry's infrastructure programme will move only as quickly as the workforce behind it. Investment in people must therefore be planned, funded and governed with the same urgency as investment in the network itself.

Annex 1 – Occupations and example job titles

Skill Level	Standard Occupation Classification	Occupational Group	Example job titles
RQF 7-8 SCQF 11-12	**11 - Corporate Managers and Directors**	Managerial	Chief Executive Officer; Chief Operating Officer; Chief Financial Officer; Operations Director
	12 - Other Managers and Proprietors	Managerial	Functional Managers; Operations Manager; Area Manager
RQF 6 SCQF 9-10	**21 - Science, Research, Engineering and Technology Professionals**	Technical Professional	Water Treatment Process Scientist; Water Quality Scientist; Civil Engineer; Process Engineer; Mechanical Engineer; Electrical Engineer; Project Engineer; Hydraulic Modeller; Cyber Security Architect
	22 - Health Professionals	Other	Occupational Health Adviser; Site Paramedic
	23 - Teaching and Other Educational Professionals	Other	Apprenticeship Trainer/Lecturer; Education Manager
	24 - Business, Media and Public Service Professionals	Business Support	Quantity Surveyor; Commercial Manager; Project Manager; Programme Manager; Contracts Manager; Senior Project Planner; Technical Author / Contract Editor
RQF 4-5 SCQF 7-8	**31 - Science, Engineering and Technology Associate Professionals**	Technical Professional	Electrical/Mechanical Technician; ICA Technician; Process Technician; Water Network Technician; Distribution Service Technician; CAD Technician; Pollution Response Technician; Laboratory Sampler
	32 - Health and Social Care Associate Professionals	Other	Occupational Health Technician; Workplace Health Trainer; Employee Assistance Programme Counsellor; Vulnerable Customer Outreach Worker; Community Development Officer; Health & Safety Officer
	33 - Protective Service Occupations	Business Support	Critical Infrastructure Security Manager; Fraud Analyst; Fire Safety Officer
	34 - Culture, Media and Sports Occupations	Business Support	Technical Author; Copywriter; Translator; Corporate Videographer; Aerial/Drone Photographer; Technical Illustrator
	35 - Business and Public Service Associate Professionals	Business Support	Estimator; Project Support Officer; Data Analyst; Buyer/Procurement Officer;; HR Adviser; Compliance Analyst; Business Continuity Specialist; H&S Adviser; Standards/Regulatory Inspector
RQF 3 SCQF 6	**41 - Administrative Occupations**	Business Support	Business Support Administrator; Project Administrator; Finance Officer; Credit Controller; Payroll Administrator; Purchase Ledger Clerk; Stock Controller; Despatch Clerk; Logistics Coordinator
	42 - Secretarial and Related Occupations	Business Support	Executive Assistant; Personal Assistant; Legal Secretary; Receptionist
	51 - Skilled Agricultural and Related Trades	Front Line Technical	Utility Arborist; Arboricultural Consultant; Vegetation Management Arborist; Countryside Ranger; Grounds Maintenance
	52 - Skilled Metal, Electrical and Electronic Trades	Front Line Technical	Electrician; Industrial Electrician; Mechanical Fitter; Pipefitter PVC Operative; Welder/Fabricator; Fleet Technician; Electrical Maintenance Technician; Mechanical Maintenance Technician
	53 - Skilled Construction and Building Trades	Front Line Technical	General Foreman/Front Line Supervisor; Civils Supervisor; Site Supervisor; Construction Supervisor
	54 - Textiles, Printing and Other Skilled Trades	Other	Digital Printer; Depot Canteen Chef
	61 - Caring Personal Service Occupations	Other	Pest Control Officer; Vulnerable Customer Care Worker
	62 - Leisure, Travel and Related Personal Service Occupations	Other	Business Travel Adviser; Reservations Agent; Project-Accommodation Housekeeper; Depot/Office Caretaker; Facilities Caretaker
	63 - Community and Civil Enforcement Occupations	Other	Not applicable

Skill Level	Standard Occupation Classification	Occupational Group	Example job titles
RQF 2 SCQF 5	**71 - Sales Occupations**	Business Support	Telesales Executive; Field Sales Representative; Meter Reader; Debt Collector; Sales Supervisor
	72 - Customer Service Occupations	Business Support	Customer Service Representative; Complaints Officer; Vulnerable Customer Adviser; Contact Centre Dispatcher; Switchboard Operator; Customer Service Supervisor
RQF 1 SCQF 4	**81 - Process, Plant and Machine Operatives**	Front Line Technical	Operational Technician; Process Operator; Treatment Operator; Production Operator; Treatment Works Controller; Distribution Operative; Leakage Technician; Plant Operator
	82 - Transport and Mobile Machine Drivers and Operatives	Front Line Technical	HGV Wastewater Tanker Driver; Vacuum Tanker Driver/Operator; Jet Vac/Tanker Operative; Crane Operator; 360 Excavator Operator; Plant Operator; Digger Operator
	91 - Elementary Trades and Related Occupations	Front Line Technical	Groundworker; Groundworker/Pipelayer; Pipe Layer; Labourer; Water Repair and Maintenance Operative; Installation Operative; Fitter's Mate
	92 - Elementary Administration and Service Occupations	Business Support	Security Guard; Gatehouse Security Officer; Warehouse Operative; Stores Assistant; Delivery Operative; Canteen Assistant

Annex 2 – Methodology

A2.1 Current workforce estimates and future employment forecasts

A2.1.1 Current workforce estimates use the latest available baseline for each sub-industry. Most estimates relate to 2025, although some use 2024 data where that is the latest available source. Forecasts are presented for 2032 and represent the best estimate based on information available at the time of publication, including known policy, investment and project plans. As with all forecasts, uncertainty increases over time and future workforce requirements may differ if assumptions, investment decisions, delivery timescales or economic conditions change.

A2.1.2 The estimates and forecasts contained in this report are based on research and employment data from the Lightcast labour market information system.

A2.1.3 Estimates are rounded to the nearest 100. As a result, the sum of sub-industries and tables may not equal published totals. Users should exercise caution when interpreting small differences between estimates and forecasts or changes over time, as these may reflect the effects of rounding rather than underlying variation.

A2.1.4 This analysis includes forecast workforce growth in the 2026 calendar year, through to the end of 2032 – seven full years.

A2.1.5 The water and sewerage industry is defined by the following Standard Industrial Classification (SIC) codes:

Standard Industrial Classification
36.00 – Water collection, treatment and supply
37.00 – Sewerage
42.21 – Construction of utility projects for fluids

A2.1.6 Note that not all employees in 42.21 – Construction of utility projects for fluids have been included in our definition of the water industry's workforce. Energy & Utility Skills has assumed 70% of this SIC's code workforce are employed in contracting companies and related engineering providers working on water infrastructure assets.

A2.2 Retirement and staff turnover assumptions

A2.2.1 Retirement forecasts have been calculated on the assumption that the proportion of the current workforce in each occupation who are aged 55+ will retire over the next ten years – therefore, we have taken one-tenth of that percentage as the annual retirement rate (see the table opposite).

A2.2.2 Staff turnover, although not an element of the core requirement for people, is based on the assumption that a small proportion of the workforce will leave the industry each year to take up employment in other sectors. Leavers through staff turnover that remain in the energy & utilities sector are not reported in this analysis (as they do not need to be replaced).

Standard Occupation Classification	Annual Retirement Rate	Annual Staff Turnover Rate
11 - Corporate Managers and Directors	2.3%	2%
12 - Other Managers and Proprietors	2.3%	2%
21 - Science, Research, Engineering and Technology Professionals	1.2%	2%
22 - Health Professionals	1.8%	2%
23 - Teaching and Other Educational Professionals	1.7%	2%
24 - Business, Media and Public Service Professionals	1.6%	2%
31 - Science, Engineering and Technology Associate Professionals	1.5%	2%
32 - Health and Social Care Associate Professionals	2.0%	2%

Standard Occupation Classification	Annual Retirement Rate	Annual Staff Turnover Rate
33 - Protective Service Occupations	1.0%	2%
34 - Culture, Media and Sports Occupations	1.2%	2%
35 - Business and Public Service Associate Professionals	1.4%	2%
41 - Administrative Occupations	2.1%	5%
42 - Secretarial and Related Occupations	3.0%	5%
51 - Skilled Agricultural and Related Trades	3.8%	2%
52 - Skilled Metal, Electrical and Electronic Trades	1.9%	2%
53 - Skilled Construction and Building Trades	2.0%	2%
54 - Textiles, Printing and Other Skilled Trades	1.9%	2%
61 - Caring Personal Service Occupations	2.1%	5%
62 - Leisure, Travel and Related Personal Service Occupations	2.1%	5%
63 - Community and Civil Enforcement Occupations	1.9%	5%
71 - Sales Occupations	1.8%	5%
72 - Customer Service Occupations	1.3%	5%
81 - Process, Plant and Machine Operatives	2.4%	2%
82 - Transport and Mobile Machine Drivers and Operatives	3.3%	2%
91 - Elementary Trades and Related Occupations	2.2%	2%
92 - Elementary Administration and Service Occupations	2.0%	2%

A2.3 Estimating occupational criticality

A2.3.1 Our approach to assessing the absolute and relative criticality of each occupational group (2-digit SOCs) and detailed occupation (4-digit SOCs) is based on the weighted average of each occupations scores against the following 11 criteria.

Criterion	Description
Occupational relevance to the industry	Importance of occupation to the industry
Infrastructure delivery criticality	Importance of occupation to infrastructure delivery
Workforce shortage severity	Current or forecast workforce shortage level
Training lead time	Time required to reach competency
Replacement demand risk	Exposure to retirement and attrition
Regional concentration risk	Geographic availability constraints
Supply chain dependency	Reliance on contractors/subcontractors
Scalability of workforce	Ability to rapidly increase workforce numbers
Technology substitution potential	Potential for AI, robotics or automation to reduce workforce requirement
Regulatory / safety criticality	Importance to safety-critical or regulated activities
Future system relevance	Importance to future digital, DSO and whole-system requirements

A2.3.2 Each occupation is given a rating out of five against each criterion set out above and each score is multiplied by a weighting. The overall weighted average is then calculated and assigned to a level of criticality:

Score	Level of criticality	Suggested response
4.0 - 5.0	Critical priority	Immediate intervention required
3.0 - 3.9	High priority	Active monitoring and targeted interventions
2.0 - 2.9	Medium priority	Longer-term workforce planning
<2.0	Lower priority	Monitor only

A2.4 AI and automation adoption framework

A2.4.1 Our approach to assessing the impact of AI and automation on the future workforce is based on three adoption scenarios (low, medium and high adoption) assessed across seven dimensions of AI and automation adoption, as set out in the table below.

A2.4.2 Potential workforce effects are assessed separately and are not a defining characteristic of AI and automation adoption. Workforce impacts may vary between occupations operating under the same adoption scenario.

A2.4.3 The distinction between Significantly Impacted and Augmented occupations is important. Occupations classified as Significantly Impacted are expected to experience substantial changes to role content, responsibilities, skills and workflows, resulting in meaningful job redesign. Occupations classified as Augmented may also experience significant AI and automation adoption, but technology primarily enhances productivity, decision-making and performance while the core nature of the role remains broadly unchanged.

Dimension	Low Adoption	Medium Adoption	High Adoption
1. Investment and pace	Selective, cautious and uneven; scaling remains slow	Sustained investment in proven cases; adoption accelerates	Strong strategic investment; rapid scaling is prioritised
2. Technology maturity and autonomy	Established, low-risk tools; mainly assistive or rule-based	Mature predictive, generative and workflow tools; bounded autonomy	Agentic AI, machine vision, robotics and autonomous systems expand
3. Breadth of deployment	Selected teams, support functions and isolated operational uses	Multiple core and support functions; adoption still varies by organisation	Most feasible functions, supply-chain areas and lifecycle stages
4. Depth and operating-model integration	Tools sit alongside existing processes; pilots and local solutions dominate	Tools enter business-as-usual workflows, data platforms and governance	Processes are designed around AI; systems coordinate across workflows
5. Task automation and augmentation	Assists workers, removes discrete routine tasks and improves information access	Automates task clusters while augmenting judgement and decisions	Automates substantial sequences or selected end-to-end processes
6. Job redesign and skills	Local working-practice changes and basic AI literacy; little formal redesign	Material role redesign, structured upskilling and some redeployment	Widespread redesign, substantial reskilling and new oversight roles
7. Productivity ambition	Incremental gains in efficiency, quality, safety or service	Material productivity and capacity gains pursued across functions	Transformational gains; higher output, faster delivery or lower labour intensity

Risk Category	Definition
At Risk of Reduction	Fewer workers may be required because AI and automation increase productivity and automate routine tasks.
Significantly Impacted	Workforce demand remains broadly stable, but roles undergo substantial redesign as tasks, skills, responsibilities and workflows change significantly.
Augmented	AI and automation significantly improve productivity, decision-making and performance, but primarily enhance rather than redesign core roles, and demand for workers remains strong.
Limited Impact	Little expected effect on workforce demand because activities continue to depend heavily on physical intervention, human interaction or site-based work.

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