apprenticeship
FRAMEWORK

Higher Apprenticeship in the Water Industry (England)

IMPORTANT NOTIFICATION FOR ALL APPRENTICESHIP STARTS FROM 22 AUGUST 2017

Modifications to SASE came into effect on 22 August 2017. Accordingly, SASE publication DFE-00167-2017 applies **both** to new Apprenticeship starts from 22 August 2017 **and** all Apprenticeships commenced before and not completed by 22 August 2017.

For more details of the changes please read the following preface page to the framework document.

Latest framework version?

Please use this link to see if this is the latest issued version of this framework:

afo.sscalliance.org/frameworkslibrary/index.cfm?id=FR02282

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Apprenticeships

CHANGES TO THE ENGLISH AND MATHS REGULAR MINIMUM REQUIREMENTS FOR APPRENTICESHIP STARTS FROM 22 AUGUST 2017 AND APPRENTICESHIPS REMAINING INCOMPLETE ON 22 AUGUST 2017.

Modifications to SASE came into effect on 22 August 2017. Accordingly, SASE publication DFE-00167-2017 applies both to new Apprenticeship starts from 22 August 2017 and all Apprenticeships commenced before and not completed by 22 August 2017.

The modifications allow for an exemption to the English and Maths regular minimum requirements for people with Special Educational Needs, Learning Difficulties or Disabilities. This means that adjusting the minimum requirements to Entry Level 3 in English and Maths can be considered by the provider, on an individual and case-by-case basis, where **all of the conditions** of the updated SASE section 18 (Intermediate level) or section 37 (Advanced level) for have been satisfied and can be evidenced.

Full details relating to the exceptions eligibility criteria are contained in:

Sections 15-23 of SASE for Intermediate Level Apprenticeships
Sections 34-42 of SASE for Advanced Level Apprenticeships

When applying this exemption, providers must **STILL** consider how to enable the Apprentice to access further literacy and numeracy development – including Level 1 and Level 2 courses – as part of their overall training provision.

The modifications to SASE have also extended the list of qualifications that meet the minimum English requirements to allow for a British Sign Language (BSL) qualification, at the appropriate level, to be accepted as an alternative to a qualification in English, where **BSL is the primary language of the Apprentice**.

Full details relating to BSL acceptance are contained in:

Section 5(f) of SASE for Intermediate Level Apprenticeships
Section 28(f) of SASE for Advanced Level Apprenticeships

Furthermore, the SASE modifications have further extended the list of qualifications that meet the minimum English and Maths requirements to allow for the acceptance of a range of UK-wide qualifications, as an alternative to qualifications gained in England.

Full details relating to the list of acceptable qualifications are contained in:

Sections 5(g-j) and 6(f-i) of SASE for Intermediate Level Apprenticeships
Sections 28(g-j) and 29(f-i) of SASE for Advanced Level Apprenticeships

The modifications include reference to the new numerical grades in the reformed GCSE system and the **minimum** grade requirements. A grade 4 (new grading) will be considered equivalent to a grade C (old grading). A grade 2 (new grading) will be considered equivalent to a Grade E (old grading).

Full details relating to the numerically graded GCSEs are contained in:

Sections 5 and 6 of SASE for Intermediate Level Apprenticeships
Sections 28 and 29 of SASE for Advanced Level Apprenticeships

Please note that some frameworks may have English and Maths grade/level requirements that are **above** the SASE **regular** minimum requirements. The exceptions relating to the use of British Sign Language or Entry Level 3 qualifications, detailed above, **do not apply** to **industry-specific** minimum entry requirements. Please check specific framework documents to ascertain where this is the case and/or check directly with the Issuing Authority responsible for the framework.

The updated version of SASE, and guidance documents, can be accessed here:
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/630068/Specification_of_Apprenticeship_Standards_for_England_.pdf

Higher Apprenticeship in the Water Industry (England)

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Framework summary

Higher Apprenticeship in the Water Industry

Higher Apprenticeship in the Water Industry

This framework includes information on Personal Learning and Thinking Skills

Pathways for this framework at level 4 include:

Pathway 1: Utilities Network Planning and Management

Competence qualifications available to this pathway:

C1 - CABWI Level 4 Diploma In Utilities Network Planning and Management (QCF)

Knowledge qualifications available to this pathway:

K1 - HNC Water Operations

K2 - Pearson BTEC Level 4 HNC Diploma in Construction and the Built Environment (QCF)

Combined qualifications available to this pathway:

N/A

This pathway also contains information on:

- Employee rights and responsibilities
- Functional skills

Framework information

Information on the Issuing Authority for this framework:

Energy and Utility Skills

The Apprenticeship sector for occupations in electricity, gas and water supply, and waste management (also includes gas utilisation, recycling and waste water collection and treatment)

Issue number: 1	**This framework includes:**
Framework ID: FR02282	Level 4
Date this framework is to be reviewed by: 04/04/2016	This framework is for use in: **England**

Short description

The water industry faces some key challenges including an ageing workforce, ageing infrastructure, a need to embrace new technologies to meet low carbon targets and a skills deficit in craft, technical and engineering roles.

The purpose of this Higher Apprenticeship is to support the industry to address these challenges by developing occupational competence in a wide range of level 4 job roles in the water industry.

Contact information

Proposer of this framework

EU Skills has engaged employers on the development of this framework through the Water Industry Strategic Steering Group (WISSG).

WISSG is an established employer-led group of water companies and contractor employers chaired by Pam James of Southern Water. Its purpose is to work collaboratively to formulate skills strategy and drive a programme of key projects to ensure sustainable skills competence in the Water Industry. WISSG has membership across the UK water sector and comprises asset owners, contractors, providers and stakeholders and reports to Water UK. Water UK is the representative organisation which brings together all of the UK's water and wastewater utilities.

Membership of WISSG includes:

Anglian Water (Chair), Bournemouth & West Hampshire, Bristol Water, Cambridge Water, Dee Valley Water, Mid Kent Water, Northern Ireland Water, Northumbrian Water, Severn Trent, Scottish Water, South East Water, Southern Water, South Staffordshire Water, South West Water, Thames Water, United Utilities, Wessex Water, Yorkshire Water, Veolia Water, Balfour Beatty, Biwater, Clancy Docwra, Daniel Contractors, Morgan Est, Morrison Utility Services, Mott McDonald, British Water, GMB, The Society of British Water and Wastewater Industries (SBWWI) and UNISON.

A dedicated sub group reporting into WISSG was established to steer qualification development. The organisations represented include Cambridge Water, Campus Veolia, South West Water and United Utilities.

Developer of this framework

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Purpose of this framework

Summary of the purpose of the framework

Defining Apprenticeships
An Apprenticeship is a job with an accompanying skills development programme, designed by employers in the sector. It allows the apprentice to gain technical knowledge and real practical experience, along with personal skills, required for their immediate job and future career. These are acquired through a mix of learning in the workplace, formal off the job learning and the opportunity to practice and embed new skills in a real work context. This broader mix differentiates the Apprenticeship experience from training delivered to meet narrowly focused job needs.

All apprentices commencing their Apprenticeship must have an Apprenticeship Agreement between the employer and the apprentice. This can be used to reinforce the understanding of the requirements of the Apprenticeship.

On completion of the Apprenticeship the apprentice must be able to undertake the full range of duties, in the range of circumstances appropriate to the job, confidently and competently to the standard set by the industry.

Profile of the Industry
The water industry is made up of the regulated water utility companies, non-regulated subsidiary water utility companies (i.e. involved in construction, engineering, consultancy, etc.) and the supply chain. Combined, the industry starts at the generation of clean water right through to the stop valve in the customer's property. It also covers the collection and treatment of waste water collected through sewers and private drains. 139,500 people work in the water industry in England; of these, 28,500 people are employed by the regulated water companies and utilities.

There are a number of key drivers for skills and employment within the industry:

- Since privatisation of the water industry in 1989 in England and Wales, regulatory pressure from OFWAT (the economic regulator for the water and sewerage industry in England and Wales) has driven a steady decline in employee numbers as companies seek to achieve efficiency targets, with employers having to consider headcount targets over and above retention of key skills and expertise.
- The industry has experienced a low turnover of staff (around 3% p.a.) during the process of downsizing and consequently the historic investment in skills has remained relatively low. However, the industry is now facing an ageing workforce which is forecast to worsen over the next 15 years. Significant additional investment in skills is, therefore, required to refresh the workforce.
- There are also a range of programmes underway to replace, grow and operate assets and

distribution infrastructures which set new demands on both resource availability and the skills levels/mix of the workforce. Although technology has improved the effectiveness of these activities over the last 20 years, increasing environmental demands and cost pressures require a continuous process of re-evaluating asset investments and operation. This process has a direct impact on the workforce at all organisational levels and will continue to do so in the future.

- The drive for a UK-wide reduction in carbon emissions to meet climate change commitments is impacting on the industry. The increased use of renewable and low carbon technologies is driving the capability profile of the industry workforce.
- Skills are integrally linked to innovation; as higher skills levels allow workers to generate new ideas and adapt to the changing economic environment. Additionally, with a more skilled managerial and general workforce, organisations are better able to introduce technological and organisational change.
- Critically, the UK water industry is inherent to the maintenance of public health. Water service companies (companies that provide water supply and sewerage services) and water supply only companies must demonstrate to the Drinking Water Inspectorate (DWI) that their workforce is competent before being issued a licence to supply water.

Apprenticeships in the Water Industry

The purpose of this Apprenticeship is to provide a recruitment and training tool to bring new entrants into the industry and develop job competence in a range of job roles at level 4.

This Apprenticeship provides employers with the ability to develop a sustainable workforce and address current and future skills gaps, critical today where skilled employees are becoming increasingly difficult to recruit.

This Higher Apprenticeship is a key priority of the Water Industry Strategic Steering Group (WISSG).

For further information on the water industry and the drivers for skills and Apprenticeships please refer to the Sector Skills Assessment 2010 available to download at: http://www.euskills.co.uk/home/news/research/

Aims and objectives of this framework (England)

Aim: To contribute to the development of a sustainable workforce for the UK water industry.

Objectives:

- To attract new workers to the industry.
- To develop occupational competence in a wide range of level 4 job roles in the industry.
- To facilitate progression within the industry.
- To meet the demand for higher level skills
- To support the Government's priority outlined in Rigour and responsiveness in skills, to ensure Apprenticeship frameworks offer high-quality, economically-relevant provision.

Entry conditions for this framework

The Higher Apprenticeship in the Water Industry is open to individuals of any age and does not impose any restrictions to entry. Responsibility for selection and recruitment of Apprentices lies with the employer who will have a clear idea of their requirements.

The qualifications included within the Apprenticeship are demanding and most employers will look for applicants who have gained 3-5 GCSEs at grade C or above in English, Maths and a science subject, to demonstrate an ability to complete the Apprenticeship.

Employers must be confident that the potential Apprentice has the learning potential/capacity, motivation and aptitude to achieve all of the mandatory outcomes of the framework. Employers are asked to be flexible when recruiting people onto the Apprenticeship. Where employers/providers have robust learner support systems in place (such as tutorials and mentoring programmes), an individual who historically has not done particularly well at reading, writing and numeracy may thrive on an Apprenticeship where the relevance and application of these subjects is understood.

This Apprenticeship programme may be attractive to learners who have completed Diplomas in Environment and Land Based studies, Construction and the Built Environment and Engineering.

Individuals should be mindful of the following when considering their suitability for the programme:

- The water industry is potentially very dangerous so the safety of Apprentices, their work colleagues and the public are of the upmost importance. Apprentices must be very safety conscious and have a very responsible attitude to work, working in accordance with company health and safety procedures at all times.
- Any person working on a restricted operations sites such as service reservoirs, pumping stations, treatment works, wells, spring and boreholes and working on the network of water mains and service pipes must be in possession of a National Water Hygiene card, so in most cases Apprentices will be required to undertake the National Water Hygiene training course and assessment during their Apprenticeship. Apprentices must be prepared to undergo health screening to ensure that they are not carriers of any waterborne diseases before a National Water Hygiene Card can be issued.
- Apprentices must be prepared to wear the Personal Protective Equipment (PPE) provided when required.
- These may be physically demanding jobs that involve bending, lifting and manual handling so a basic level of fitness is important to be able to conduct the job efficiently.
- Individuals with claustrophobia should be mindful that some of these job roles may involve working in confined spaces.
- Individuals with acrophobia should be mindful that some of the job roles (particularly in process operations) may involve working at heights.

- Conditions may be wet, dirty and smelly (particlularly in wastewater operations) however Apprentices would be provided with appropriate PPE.
- Many of these jobs involve work outdoors, so Apprentices should be prepared to work in any kind of weather.
- Apprentices will need to have good practical skills for handling tools and instruments and be prepared for some hard work. These are very skilled jobs and some aspects require significant amounts of concentration.
- Some job roles will require shift work to ensure plant and equipment is operational 24 hours a day. Apprentices therefore need to be adaptable and flexible.
- Some of these job roles involve travelling as Apprentices may work at different sites so a driving license is desirable.
- Some of these job roles involve dealing with the general public on a day-to-day basis so Apprentices should be presentable and have a polite and courteous manner.
- The ability to work as part of a team and independently is important.
- Good self-discipline and timekeeping are important.
- Apprentices need to be enthusiastic with a positive attitude and a keen interest in the water industry.

Initial assessment

Initial assessment will be used by training providers and/or employers to identify prior learning and experience to tailor the Apprentice's Individual Learning Plan, not for screening out applicants. In the case of APL for competence, knowledge or Functional Skills, the Apprenticeship programme must be tailored to allow the Apprentice to undertake new learning, including learning at a higher level and develop new skills.

Level 4

Title for this framework at level 4

Higher Apprenticeship in the Water Industry

Pathways for this framework at level 4

Pathway 1:	Utilities Network Planning and Management

Level 4, Pathway 1: Utilities Network Planning and Management

Description of this pathway

This pathway requires a minimum of 135 credits.

Entry requirements for this pathway in addition to the framework entry requirements

There are no additional requirements other than the general entry requirements.

Job title(s)	Job role(s)
Network Manager	Responsibility for the daily operations of the water or sewerage network.
Leakage Manager	Managing leakage control activities on the water distribution network.
Asset Engineer	Developing asset management strategies for the water industry for inclusion with capital development plans.
Network Modeller	Design of computer models that reflect the operation of water and sewerage networks for on-going operational management and future enhancements.
Design Technician/Project Engineer	Work with senior engineers on the design of assets in the water industry.

Qualifications

Competence qualifications available to this pathway

C1 - CABWI Level 4 Diploma In Utilities Network Planning and Management (QCF)					
No.	**Ref no.**	**Awarding organisation**	**Credit value**	**Guided learning hours**	**UCAS points value**
C1a	600/8287/2	CABWI	47	235-289	N/A

Knowledge qualifications available to this pathway

K1 - HNC Water Operations					
No.	**Ref no.**	**Awarding organisation**	**Credit value**	**Guided learning hours**	**UCAS points value**
K1a	G979 15	SQA	88	480	N/A

K2 - Pearson BTEC Level 4 HNC Diploma in Construction and the Built Environment (QCF)					
No.	**Ref no.**	**Awarding organisation**	**Credit value**	**Guided learning hours**	**UCAS points value**
K2a	500/8276/0	Pearson Education Ltd	120	500	N/A

Combined qualifications available to this pathway

N/A

Relationship between competence and knowledge qualifications

C1 relates to all the job roles in the pathway.

K1 and K2 provide underpinning knowledge and understanding for C1 and are appropriate to all the job roles in the pathway.

Learners who have already achieved competence and/or knowledge qualifications before entry to the Apprenticeship must select options which will equip them with new skills and learning.

Transferable skills (England)

Functional Skills / GCSE (with enhanced functional content) and Key Skills (England)

Apprentices must complete or have completed one of the English transferable skills qualifications and one of the Mathematical transferable skills qualifications listed below in order to successfully complete their Apprenticeship and this will carry the QCF five credit values. If they do not have these qualifications as part of their evidence an Apprenticeship certificate cannot be awarded.

English	Minimum level or grade	Credit value
Functional Skills qualification in English	N/A	N/A
GCSE qualification in English (with enhanced functional content)	N/A	N/A

* *achieved before September 2012 and within the 5 years immediately prior to starting an Apprenticeship.*

** *achieved before September 2012, otherwise at any time prior to starting the Apprenticeship.*

Mathematics	Minimum level or grade	Credit value
Functional Skills qualification in Mathematics	N/A	N/A
GCSE qualification (with enhanced functional content) in Mathematics	N/A	N/A

* *achieved before September 2012 and within the 5 years immediately prior to starting an Apprenticeship.*

** *achieved before September 2012, otherwise at any time prior to starting the Apprenticeship.*

Inclusion of Information and Communications Technology (ICT)

IMPORTANT: Please note that the achievement of Transferable Skills is no longer a mandatory requirement for Higher Apprenticeships.

Progression routes into and from this pathway

Progression routes into the pathway:

Applicants may come from a range of routes including:

- Advanced Level Apprenticeship in the Water Industry
- Relevant work or work experience
- Training and/or experience which could include a portfolio showing what they have done
- Academic qualification(s) such as GCSEs or A levels
- Successful completion of a (14-19) Diploma in particular the Diploma in Environmental and Land-Based Studies
- Mature candidates currently employed in the industry but taking a career change or up-skilling

Individuals must meet the entry conditions (see entry conditions) of the Higher Apprenticeship and the recruiting employer. Existing members of the workforce may also progress into this Higher Apprenticeship as well as new recruits.

Progression routes out of the pathway:

Throughout any career in the water industry, individuals will be provided with the necessary on-going on and off job training, including refresher training and new skills training, to enable them to carry out their job role competently.

On completion of the Higher Apprenticeship and under normal circumstances, Apprentices may continue to work as a competent manager or engineer in their current job role. Progression will depend on the performance and motivation of the individual and the vacancies/opportunities available within the company. It is possible for Managers and/or Engineers to move across to other industry areas and progress both horizontally and vertically within the industry.

Apprentices may progress onto a 1st Degree in Civil Engineering. Completion of the Apprenticeship is recognised by the Institute of Water for professional registration against Engineering Council parameters.

For the right individual, this programme can provide a springboard to an exciting and rewarding career in the water industry. For further information on careers in the water industry please visit www.euskills.co.uk/careers

UCAS points for this pathway: Not applicable

Employee rights and responsibilities

Employee rights and responsibilities (ERR) is no longer a mandatory requirement of Higher Apprenticeships.

An ERR workbook has been develop for the Intermediate and Advanced level Apprenticeship and this may be used to underpinn and embed the induction process of apprentices following this HIgher Apprenticehip. The workbook is available at www.euskills.co.uk

Completion of the workbook is not a mandatory requirement of this Higher Apprenticeship and does not need to be evidenced at the point of certification.

The remaining sections apply to all levels and pathways within this framework.

How equality and diversity will be met

Under-representation in the industry

The under-representation of women and those from a black or minority ethnic (BME) background remains a key priority for the industry. Females constitute only 28% of the workforce compared to the 43% UK average. In addition, only 4% of the water industry workforce is from a black or minority ethnic (BME) background compared to 8% of the UK workforce.

Barriers to entry and progression

Unfounded but widespread perceptions about the water industry provide the main barrier to entry and progression for these under-represented groups.

Solutions to entry and progression

Apprenticeships are seen as a vital route to encourage and facilitate a greater diversity of individuals into the industry. This Apprenticeship does not discriminate. Employers/providers must be able to demonstrate that there are no overt or covert discriminatory practices in selection and employment. All promotional, selection and training activities must comply with relevant legislation, in particular, the protected characteristics of the Equality Act 2010. For guidance please refer to:
www.equalityhumanrights.com/advice-and-guidance/new-equality-act-guidance/

The larger employers in the industry are actively involved in initiatives to increase representation of women and BME groups in the industry. Energy & Utility Skills will support these initiatives by promoting specifically to these groups. Take up will be monitored through analysis of statistical returns from the Data Service and through certification data. Where questions arise concerning policy and practice, Energy & Utility Skills will work closely with NAS to identify causes and to implement positive action where appropriate.

EU Skills will continue to host stands at careers fairs and participate in skills competitions where we can promote this Apprenticeship to all groups including females and BME. In addition we have developed a number of case studies of successful women working in the sector which we are using to encourage new female entrants.

These case studies can be accessed at: http://www.euskills.co.uk/careers/

On and off the job guided learning (England)

Total GLH for each pathway

GLH do not apply to Higher Apprenticeship frameworks.

Minimum off-the-job guided learning hours

N/A

How this requirement will be met

N/A

Minimum on-the-job guided learning hours

N/A

How this requirement will be met

N/A

Personal learning and thinking skills assessment and recognition (England)

Summary of Personal Learning and Thinking Skills

Personal Learning and Thinking Skills (PLTS) are no longer a mandatory requirement of Higher Apprenticeships.

Creative thinking

N/A

Independent enquiry

N/A

Reflective learning

N/A

Team working

N/A

Self management

N/A

Effective participation

N/A

Additional employer requirements

There are no additional employer requirements.

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