

**Knowledge of wider environmental issues and trends (*which may be related to, but not constrained, to your area of expertise*).**

You should be able to demonstrate that you have a breadth of environmental knowledge and also have an awareness of developments/future issues in the sector in which you operate. You should be able to demonstrate a relevant understanding of trends in legislation/local/national/international directives, financial and societal drivers within your industry.

**Key Questions**

- Do you understand what the main issues and environmental drivers are in your industry or in an area of interest?
- Do you understand the wider context of your position in the environmental sector and the relationship to wider environmental issues?
- What knowledge do you require in your day to day role?
- Where do you find the environmental information you require?
- Do you read/have an interest outside of your discipline and keep up to date with such topics?
- What environmental legislation drives the business of your employer or clients?
- How has your employer or clients developed their businesses to meet the challenges or opportunities presented by evolving technology and environmental challenges?
- Can you explain and have a personal view on an international or national current environmental issue outside your core work area?

**Examples**

## Policy –

- I keep abreast of key policy and social changes affecting my work and the wider sector and try to link these to my projects wherever possible. For example, my knowledge and understanding of the Flood and Water Management Act has greatly supported the work I do on Local Flood Risk Management Plans. The Water Framework Directive has influenced my understanding of the analysis I undertake for the effects of removal of in-channel features.
- The Water Industry is principally governed by the Water Industry Act, regulated by OFWAT (The Water Service Regulation Authority) and must satisfy the Drinking Water Inspectorate (DWI) and Environment Agency (EA) requirements.
- Work on Ofwat Price Review or Water Resource Management Plan

## Monitoring –

- I maintain my knowledge of wider environmental issues and trends through continuous professional development. I frequently make use of webinar and evening seminar events to allow me to maximise the range and breadth of my knowledge and access events that cover wider themes outside of my immediate working area including ecology, transport infrastructure, sewerage treatment operations, and engineering, while minimising the environmental impact of these activities.
- Highlight your membership of any other relevant professional bodies (e.g. the Institute of Environmental Management and Assessment (IEMA); the Institution of Environmental Sciences etc), including attendance at events, webinars etc.
- Training courses attended – give some specific examples.
- I am fortunate enough to have access to a wide range of environmental publications such as Journals and proceedings from the Royal Geographical Society, CIWEM and the ICE. I also monitor a number of industry magazines such as GIS professional, Water and Waste Water

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Treatment and Geomatics World which allows me to support my knowledge, understanding, and skills with independent reading.

**Themes -**

- The main issue within my sector is climate change and the resulting intense periods of rainfall during the winter and drier summers. These lead to greater risks of flooding and water scarcity in the water-stressed areas, particularly in the south of England.
- Improved data is available via new technologies (real time data loggers) to collect accurate information Smart leakage monitoring and satellite and drone leakage detection is helping target leakage.
- The water industry is addressing mitigation by reducing energy from fossil fuels, generating their own energy (biogas, thermal hydrolysis) and through energy efficiency (pump, network optimisation). Adaptation is being addressed by items such as Water Resource Management plans, managing and addressing the risk to assets and building resilience into the water and wastewater network.

**Discussion Activity**

Discuss on the forum or with your peers at work:

- What are the main issues and environmental drivers in your industry?
- How does the work that you do (for example in Water Framework Directive) relate to other disciplines or areas (using the above Water Framework Directive example e.g. geomorphology, flood risk, water quality, ecology)?
- What knowledge you require in your day-to-day role and where you go to obtain this knowledge.
- How does the work you do take into consideration and respond to environmental trends (e.g. climate change)?
- How has your employer or clients developed their businesses to meet the challenges or opportunities presented by evolving technology and environmental challenges?

**Written activity**

This week...

- Prepare 5 bullet points to evidence your knowledge of wider environmental issues and trends, using the format suggested under 'Examples' above.

**Related professional registrations**

While looking at A1 you may want to consider incorporating the following related professional regulations for Chartered Env/Eng/Sci.

- (CEnv, A1), Have underpinning knowledge of sustainable development principles in the management of the environment.
- (CEng, A1), Maintain and extend a sound theoretical approach in enabling the introduction and exploitation of new and advancing technology and other relevant developments.
- (CSci, A1), Use a combination of general knowledge, understanding and skills to optimise and engage in the application of existing and emerging science and technology.