

Welcome - starting at 8.30



Chartership competencies Part 9 | Breakfast Webinar Series

Katie Woollard

C Competencies

C1. Ability to manage resources effectively and efficiently

C2. Understanding, promotion and application of Health and Safety (H&S)

C3. Your contribution to sustainability

C4. Understanding, promotion and application of quality enhancement and Quality assurance

Introduction and Format

- ▶ Introduce competency
- ▶ Set out Key Questions
- ▶ Give some example responses
- ▶ Set some activities for today
- ▶ Set some activities for this week
- ▶ Cross referencing for other accreditations

The background features abstract, overlapping geometric shapes in various shades of blue, ranging from light sky blue to deep navy blue. These shapes are primarily located on the right side of the page, creating a modern, dynamic feel. The rest of the page is a plain white background.

C3

Your contribution to sustainability.

C3

Your contribution to sustainability

You will be expected to explain your understanding of the term sustainability and give practical examples of how you have implemented your definition.

You could for example demonstrate the need to minimise waste, manage the use of non-renewable resources, monitor and review energy consumption, recycle and promote use of alternative materials.

You may wish to carry out an audit of your workplace to assess its sustainability credentials.

C3 - Key Questions

- ▶ How do you **define sustainability**?
- ▶ What impact does your work have on the **environment**?
- ▶ What examples of sustainability have you **incorporated into a project**?
- ▶ How do you **balance economic, environmental and societal factors**?
- ▶ How do the outputs of your work contribute to **sustainability**?
- ▶ What actions and measures have you taken to **minimise negative impacts**?
- ▶ What **environmental improvements** have you identified and delivered?
- ▶ How do you implement sustainability principles in your **personal life**?
- ▶ How do you **encourage others** to adopt a sustainable approach?
- ▶ How do you **promote sustainable solutions**?

C3 - Examples of Sustainability Definitions

- ▶ **CIWEM:** “To be sustainable an action must not lead, or contribute, to depletion of a finite resource or use of a resource exceeding its regeneration rate”
- ▶ **Company / Personal:** For example Thames Water’s vision ‘Here for you: innovating for life in a changing environment’ encapsulates the overarching objective which I set myself at work to deliver a service to customers which is ahead of the curve and sustainable, **socially, environmentally and economically**, despite the intensifying future pressures the business faces.
- ▶ **Personal:** Future generations should not be disadvantaged by the actions and decisions taken today. Sustainability is about planning and operating in a **socially, environmentally and economically** responsible way.
- ▶ **Personal:** I define sustainability as the ability to deliver the needs of today without compromising the needs of tomorrow. For anything to be sustainable it must balance **economic, social and environmental** needs and impacts.

C3 -Your contribution to sustainability

Company 'Bigger Picture' Examples

- ▶ I operate within My Company's **ISO 14001:2004 accredited environmental management system** when conducting my work to act in accordance with the best principles for the mitigation of environmental harm and the enhancement of environmental quality.
- ▶ Working for a company that **aims to reduce its carbon footprint** I have a responsibility to ensure that where possible I limit my own carbon footprint and recycle within the work environment.
- ▶ My ambition to work and progress within the water sector is driven by my passion for working in an industry which has **sustainability at the top of its agenda**; it is an industry with a regulatory duty to provide an essential service whilst working to go beyond this by enhancing the environment and people's lives. Working in an industry with a tangible benefit to and immediate day to day impact on society gives me a sense of purpose and makes me feel that I am making a positive difference to both this and future generations.
- ▶ Water infrastructure and non-infrastructure also have a large impact on the environment and communities through construction, visual aesthetics, noise, smell, traffic and energy use. I counter this by challenging proposed infrastructure requirements and working to extend asset lifespan, resilience, therefore, minimising impact to customers and the environment.

C3 -Your contribution to sustainability

Work and Project Examples - Holistic

- ▶ **Engineering projects** can have quite a significant impact on the environment requiring the use large quantities of materials which often have a large carbon footprint. The opportunity to minimise these impacts is best addressed through the design stage. As an engineer I have the responsibility to consider the sustainability of the design. This is usually a major consideration in the options appraisal process and is generally taken into account through a **multi-criteria analysis which seeks to balance the different aims and aspirations of the technical, economic, environmental, and social aspects of a scheme**. It can be more challenging to ensure that sustainability is kept at the forefront of the design process. This is best achieved within the **design input statement which can be used to set design targets or identify sustainability goals or requirements**.
- ▶ **When proposing drainage / energy (etc) strategies** I work with developers to explain the **economic** impact (both capital and maintenance costs), the **social** impact (will the proposed scheme be acceptable for future buyers? Are they prepared to undertake required maintenance?), and the **environmental** impacts (Is embedded carbon acceptable? Will production of net waste be minimised? Can the scheme deliver a net increase in habitat? How will site runoff / water usage / energy usage (etc) be managed?) **to ensure sustainability**.

C3 -Your contribution to sustainability

Work and Project Examples - Specific

- ▶ I assess mains, pump and reservoir replacement schemes in which I determine supply and storage requirements. These need to **meet future needs** whilst maintaining current levels of service while simultaneously **keeping the impact on the environment to a minimum**. This can be done via the use of hydraulic models and completing current condition assessments using new technologies to extend asset life.
- ▶ I have worked on **Strategic Flood Risk Assessments** that provide supporting information to Councils to ensure that all future development is **sustainable in terms of managing flood risk** to proposed and future sites.
- ▶ On a project I am managing to design a replacement pumping station there is a need to **consider the carbon emissions from the pumping station during its lifecycle**. The existing station is over 30 years old and the pumps are not the most efficient therefore electricity usage is high. The replacement station will look to **implement more efficient pumps to reduce the energy requirements** but I have also included an internal renewables specialist to investigate the scope for **incorporating renewables in the final scheme**.

C3 -Your contribution to sustainability

Examples of Promoting and Encouraging Others

- ▶ I promote sustainability to younger generations by speaking to schools about water use and efficiency.
- ▶ When planning work I measure my anticipated carbon footprint on projects and seek ways of reducing it through use of conference calls, webinars, and digital deliverables to cut out unnecessary travel and issue of printed material. I am keen to promote the benefits of these activities and include as part of my monthly reporting to the client an illustration of how such actions have reduced the carbon impact of the study and provide economic benefit. I have led my office in the creative illustration of these benefits to both clients and my peers.
- ▶ At [CONSULTANCY], I was part of the Rising Awareness Cutting Energy (RACE) initiative that encouraged the reduction of energy consumption, and considered efficient material use, control of water and recycling.
- ▶ When working with developers or planners I am keen I encourage them to go beyond the minimum statutory requirements. An example of this is encouraging developers to seek the optional additional surface water/ flood risk / Energy (etc) credits for BREEAM assessments I undertake, above and beyond the compulsory elements

C3 -Your contribution to sustainability

Personal Examples

- ▶ I commute to work by bike and promote the use of technology to conduct online meetings to reduce journeys. Where possible I try to minimise the need to print documents and drawings. I recycle at home and minimise my energy, water use (shower timer) and my food waste (wormery). My energy company supplies and generates green energy and is opposed to fracking.
- ▶ Both inside and outside work I try to minimise my environmental footprint. At home I am water efficient using a water butt in the garden and only washing full loads, I save energy by switching off devices not in use, I have reduced plastic use for example using a reusable coffee cup and I routinely recycle and I reduce my carbon footprint by car sharing and cycling when I can.

Activity - Today

- ▶ Discuss with your peers:
 - ▶ How do you define sustainability? And consider:
 - The implications of the work that you do
 - The implications for your company
 - The implications for a client or project that you are working with/on
 - ▶ What action have you taken at work?
 - Included sustainable approaches in projects?
 - Contributed to an environmental management plan (EMP)?
 - Promoted renewable resources, waste reduction, carbon footprint etc?
 - ▶ What actions have you taken at home?
 - ▶ What positive outcome has your action/advice resulted in?

Activity - this week

- ▶ Spend 15 mins answering the key questions for this week
- ▶ Make a list of 3 problems / projects you have worked on in your career. Prepare bullet points for each to demonstrate how you have contributed to sustainability.

Cross referencing - other accreditations

Related professional registrations

While looking at C3 you may want to consider incorporating the following related professional regulations for Chartered Env/Eng/Sci.

(CSci, D) - Demonstrate an understanding and commitment to Health and Safety and environmental issues related to employment.

(CEnv, A2) - Apply environmental knowledge and principles in pursuit of sustainable development and environmental management.

(CEnv, B1) - Influence others to promote behavioural and cultural change to secure environmental improvement beyond legislative compliance.

(CEnv, B2) - Promote a strategic environmental approach.

(CEnv, D1) - Encourage others to promote and advance a sustainable and resilient approach by understanding their responsibility for environmental damage and improvement

(CEng, E3) - Undertake engineering activities in a way that contributes to sustainable development

Tips

- ▶ Always write in the first person - CIWEM are only interested in what you have done, not what your team has done.
- ▶ Be honest about what you have contributed to a project
- ▶ Understand why you are doing a particular tasks - what is the bigger picture?
- ▶ Be concise
- ▶ Remember what you have written
- ▶ Don't limit your self to experience at current employer or paid employment

News

- Fast Track to Membership course – now available online (£325+VAT Group discount available).
- The course has been tailored to compliment this free webinar series to aid in your submissions.
 - ▶ A two-hour module. Part 1, assisting you with the preparation of your Career Overview Report and taking you through the application process. Part 2, one-hour preparing for your Professional Review Interview.
 - ▶ A three-hour session delivered in two parts with one highly experienced tutor who will work with you in groups of two or three fellow applicants to prepare the core content of each of your 14 competencies
 - ▶ 1 hour 1 on 1 tuition support to review your submissions from professional tutors, many of which are also Professional Review Interviewers.
- Contact learning@ciwem.org or visit <https://www.ciwem.org/training/fast-track-to-chartership>

News

- CIWEM Mentor Platform now open – all free to use
- <https://www.ciwem.org/membership/mentoring>
- Not just for C.WEM – please do promote to your network.

Expertise

- × Career breaks
- × Continuing Professional Development
- × Goal Setting/ Career Planning
- × Management of staff
- × Maternity leave
- × Skills development
- × Study motivation
- × Work/life balance

Skills

- × Building self-awareness
- × Written and verbal communication
- × Interview skill
- × Planning and organisation
- × Decision making
- × Influencing and negotiating
- × Adapting to change
- × Taking responsibility for personal development
- × Understanding and managing conflicts of interest
- × Team working
- × Networking
- × Building effective working relationships

Save the date

Next call

24th June - C4

**Understanding, promotion and
application of Quality Enhancement**



Chartership competencies Part 10 | Breakfast Webinar Series

Please fill in the Survey - if helps improve the series

Jack Southon

Please book 24 hours before the next session