

## Identify and evaluate sustainable resources

### WM61 SQA Unit Code H2L3 04

*This national occupational standard A22.1 belongs to the Construction Industry Council – the standards setting body for the built environment*

### Terms used within the standards

**Information sources** - desk research of published literature; commissioned research; consultation with appropriate authorities; consultation with colleagues

**Factors** - nature; location; continued availability; energy use/demand; climate change impact; carbon use; waste; water use; biodiversity

**Utilisation** - historic use; current use; anticipated future use

**Environmental implications** - social; cultural; technical; economic; visual;

**Alternative resources** - culturally and environmentally acceptable to use finite and non-renewable resources; local and global ecological systems; technological alternatives (including biomass, CHP, photovoltaic, heat pump, hydrogen; fuel cell); solar, wind and wave power

**Presenting** - oral; written; graphic; electronically

**Stakeholders** - immediate superiors and managers; elected representatives; public servants; shareholders

### Skills and competencies which demonstrate effective performance

*You show you are competent to:*

- a. investigate, from appropriate **information sources**, the **factors** which impact on the **utilisation** and sustainability of finite and renewable resources
- b. assess accurately the costs and implications of management and replacement of renewable resources
- c. identify and summarise appropriate and valid **information sources** and identify potential **alternative resources**
- d. compare the technical performance and **environmental implications** of **alternative resources** with the performance of existing finite resources with a similar function and calculate any variances
- e. investigate, assess and recommend suitable strategies for extending existing resource sustainability
- f. investigate, assess and recommend suitable strategies for developing **alternative resources**, which indicate positive technical and environmental advantages
- g. **present** strategies in a suitable format and justify them to relevant **stakeholders**



## Performance and Process

### Product Evidence:

- (1) Summary (ies) and assessment(s) of information indicating the factors which impact on the utilisation and sustainability of finite and renewable resources (a, b, c, e) [1, 2, 3]
- (2) Records of analysis of and strategies for developing potential alternative resources (c, d, f, g) [4, 5, 6, 7]

### Process Evidence:

- (1) Presentation(s) of strategies (e, f, g) [6, 7]

## Knowledge and understanding

### *You know and understand the following:*

1. What do you identify as appropriate and valid **information sources**? (understanding) (c) [1]
2. How do you summarise appropriate and valid **information sources**? (application) (c) [1]
3. How and why do you investigate, from appropriate **information sources**, the **factors** which impact on the **utilisation** and sustainability of finite and renewable resources? (analysis) (a) [1,2,3]
4. How and why do you assess accurately the costs and implications of management and replacement of renewable resources? (analysis) (b) [2,4,5]
5. How and why do you investigate and assess suitable strategies for extending existing resource sustainability? (analysis) (e) [3]
6. How and why do you recommend suitable strategies for extending existing resource sustainability? (synthesis) (e) [3]
7. What do you identify as potential **alternative resources**? (understanding) (c) [5]
8. How do you calculate any variances between the technical performance and **environmental implications** of **alternative resources** with the performance of existing finite resources with a similar function? (application) (d) [4,5]
9. How and why do you compare the technical performance and **environmental implications** of **alternative resources** with the performance of existing finite resources with a similar function? (synthesis) (d) [4,5]
10. How and why do you investigate and assess suitable strategies for developing **alternative resources**, which indicate positive technical and environmental advantages? (analysis) (f) [5]
11. How and why do you recommend suitable strategies for developing **alternative resources**, which indicate positive technical and environmental advantages? (synthesis) (f) [5]
12. How do you present strategies? (application) (g) [6]
13. How and why do you justify strategies to relevant **stakeholders**? (evaluation) (g) [7]