



## National Unit specification: general information

**Unit title:** Practical Habitat Management (SCQF level 6)

**Unit code:** FV4F 12

**Superclass:** QA

**Publication date:** September 2011

**Source:** Scottish Qualifications Authority

**Version:** 02

## Summary

This Unit will provide candidates with knowledge, understanding and practical experience of management projects which are undertaken to maintain and enhance habitats. Candidates will have the opportunity to develop specific and technical practical skills for habitat management. The Unit will provide an understanding of the seasonality of practical habitat management projects as well as the importance of understanding the intended immediate and long term impacts of work carried out on site and how these impacts can be monitored.

This Unit is suitable for all those who wish to gain a more detailed understanding of habitat management and practical experience of techniques used in managing habitats.

This Unit is an optional Unit in the National Certificate in *Countryside Management* (SCQF Level 5) and is also available for candidates wishing to study the Unit on its own.

## Outcomes

- 1 Explain approaches to habitat management.
- 2 Plan and implement habitat management tasks in a given area.
- 3 Evaluate the effectiveness of habitat management tasks carried out in a given area.

## Recommended entry

While entry is at the discretion of the centre, candidates would normally be expected to have attained one of the following, or equivalent:

Practical Conservation: Habitat Management (SCQF level 5)

## **National Unit specification: general information (cont)**

**Unit title:** Practical Habitat Management (SCQF level 6)

### **Credit points and level**

1 National Unit credit at SCQF level 6 (6 SCQF credit points at SCQF level 6\*).

*\*SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

### **Core Skills**

Achievement of this Unit gives automatic certification of the following Core Skills component:

- ◆ Critical Thinking at SCQF level 4
- ◆ Planning and Organising at SCQF level 5

There are also opportunities to develop aspects of Core Skills which are highlighted in the Support Notes of this Unit specification.

## **National Unit specification: statement of standards**

**Unit title:** Practical Habitat Management (SCQF level 6)

Acceptable performance in this Unit will be the satisfactory achievement of the standards set out in this part of the Unit specification. All sections of the statement of standards are mandatory and cannot be altered without reference to SQA.

### **Outcome 1**

Explain approaches to habitat management.

#### **Performance Criteria**

- (a) Describe reasons for managing habitats.
- (b) Explain why the habitats of a given area are managed.

### **Outcome 2**

Plan and implement habitat management tasks in a given area.

#### **Performance Criteria**

- (a) Plan for the implementation of practical habitat management tasks in a given area.
- (b) Describe the expected results of identified habitat management tasks in a given area.
- (c) Explain methods for monitoring the effectiveness of habitat management tasks in a given area.
- (d) Follow the plan to carry out identified tasks.

### **Outcome 3**

Evaluate the effectiveness of habitat management tasks carried out in a given area.

#### **Performance Criteria**

- (a) Describe the initial impacts of habitat management work carried out.
- (b) Evaluate the initial effectiveness of habitat management work carried out.
- (c) Explain how the expected long term effectiveness of the habitat management tasks can be achieved.

## National Unit specification: statement of standards (cont)

**Unit title:** Practical Habitat Management (SCQF level 6)

### Evidence Requirements for this Unit

Written and/or oral and performance evidence are required to demonstrate that all Outcomes and Performance Criteria have been met.

**Outcome 1** — Assessment is open-book. The assessor must be satisfied that the evidence submitted is the individual candidate's own work.

Candidates are required to provide written and/or oral evidence to show that they can provide:

- ◆ two reasons why habitats are managed in relation to conservation
- ◆ two reasons why habitats are managed for human benefit
- ◆ an explanation of why a minimum of two habitats in a given area are managed
  - in relation to conservation
  - in relation to people

**Outcome 2** — Assessment will be written/oral or recorded open-book. The assessor must be satisfied that the evidence submitted is the individual candidate's own work.

Candidates are required to produce a detailed plan for the implementation of a minimum of two habitat management tasks which must include:

- ◆ an identification of what is being managed including:
  - vegetation type
  - site condition
- ◆ a description of each practical habitat management task to be carried out
- ◆ an identification of resources required to carry out each identified task
- ◆ an explanation of the time of year when each identified tasks should be carried out
- ◆ an estimation of the time and labour required to complete each identified task
- ◆ a description of how waste material produced by the identified tasks will be dealt with
- ◆ a risk assessment for each identified task
- ◆ a description of the expected results of each of the practical habitat management tasks
  - initial/short-term
  - long term
- ◆ an explanation of methods to monitor the expected results

Performance evidence must include:

- ◆ carrying out the tasks identified safely and according to the plan
  - select appropriate tools, materials and equipment for tasks undertaken
  - carry out all tasks safely and in line with best practice
  - use tools, materials and equipment safely
  - maintain a clear and safe work site at all times
  - follow best practice
  - carry out all tasks to given specification
  - carry out all tasks in ways which do not damage the site
  - deal with waste materials appropriately for the site

## **National Unit specification: statement of standards (cont)**

**Unit title:** Practical Habitat Management (SCQF level 6)

**Outcome 3** – Assessment is open-book. The assessor must be satisfied that the evidence submitted is the individual candidate's own work.

Candidates must provide written/oral or recorded evidence which includes:

- ◆ a description of the initial impacts of habitat management work carried out
- ◆ an evaluation of the initial effectiveness of the tasks carried out in Outcome 2
- ◆ an explanation of the expected long term effectiveness of the tasks carried out in Outcome 2

## National Unit specification: support notes

### Unit title: Practical Habitat Management (SCQF level 6)

This part of the Unit specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 40 hours.

### Guidance on the content and context for this Unit

This Unit is aligned to the following LANTRA National Occupational Standards:

- ◆ CU2 Monitor and maintain health and safety
- ◆ CU4 Maintain environmental good practice at work
- ◆ CU86 Establish Habitats
- ◆ CU87 Carry Out Habitat Management Work
- ◆ CU88 Manage Habitats

Practical skills for habitat management are valued by many employers in the countryside management sector, as are skills and experience that will enable employees to not only carry out tasks under supervision, but also plan for the effective delivery of such projects. Through this Unit, candidates will develop an understanding of different reasons for undertaking habitat management as well as the reasons why different approaches are applied in different situations. This understanding gained in Outcome 1 will be applied by candidates in Outcome 2 as they prepare a plan for carrying out specific habitat management projects, before implementing them and evaluating the effectiveness of their work. This Unit will highlight the necessity of group working within habitat management and encourage a positive attitude towards working with others. A positive approach to health and safety should be promoted at all times.

#### In relation to Outcome 1

Reasons for carrying out practical habitat management could include those for the benefit of conservation and those for the benefit of humans:

- ◆ Conservation
  - protection and enhancement of:
    - rare species and their habitats
    - rare habitats
  - maintaining and enhancing habitat diversity and biodiversity
  - wildlife corridors
  - maintaining and protecting landscapes

## National Unit specification: support notes (cont)

**Unit title:** Practical Habitat Management (SCQF level 6)

- ◆ Human
  - game habitats
    - pheasants (woodland)
    - grouse (heathland/moorland)
    - ducks and wildfowl (wetlands)
    - fishing (wetlands)
  - woodland management
    - coppice products
    - charcoal making (traditional crafts)
  - forestry
  - grasslands agriculture:
    - grazing
    - hay and silage

Different aspects of habitats are managed for different reasons and it is important that those carrying out work on the ground understand exactly what they are working on and for what reasons. This understanding should reduce the potential for wrong site conditions or vegetation to be worked on and of inappropriate work being carried out which could cause damage to the habitat or wider site. Having this understanding in advance of carrying out work on site will help to enable early identification of problems on the ground and minimisation of potential negative impacts.

Site conditions managed for habitat management will include:

- ◆ soil
- ◆ water levels and drainage
- ◆ pollution
- ◆ accessibility to the site and minimising the effects of public access and the integrity of site boundaries

For example on a wetland site an aim of habitat management could be to maintain or raise water levels by removing naturally regenerating tree species from the habitat, alternatively the biodiversity value of woodland might be increased by the removal of non-native species.

In the context of this Unit vegetation refers to woody vegetation (that has woody stems, such as trees, scrub and heather) and non-woody vegetation (that does not have woody stems, such as grasses and herbaceous flowers).

## National Unit specification: support notes (cont)

**Unit title:** Practical Habitat Management (SCQF level 6)

### In relation to Outcome 2

Understanding what is to be achieved by any practical habitat management work is paramount when planning its implementation. In planning the implementation of habitat management tasks consideration should be given to the following details:

- ◆ how tasks will be carried out
  - what is being done and why? (vegetation type, site conditions)
  - what tools are required?
  - how many people are required to effectively carry out the tasks?
  - how long will it take to achieve the task(s) in relation to the number of people identified?
  - how will waste material be dealt with? (on site or removed from site?)
  - how will damage to the site be minimised throughout the work being done?
- ◆ details of the standards to be achieved and why these are necessary (including identification of the vegetation or site conditions to be managed and application of the correct techniques)
- ◆ resources — these could relate to tools, materials, time, financial or human as outlined above. Human resources could be physical numbers, but also specialist skills and potential training requirements of workers, who may well be volunteers in the wider sector.
- ◆ time of delivery — consideration of the seasonality of work and the impacts of work carried out at inappropriate times such as breeding and flowering seasons.
- ◆ risk assessment for identified habitat management tasks. Consideration should be given to required PPE, correct use of tools and safe working distances, correct practices to be followed, site conditions etc.

If the aims of practical habitat management tasks are known, then it is reasonable to predict the expected results of the planned work as this should reflect the initial aim.

These expected results of habitat management works should be seen in the short term and long term. Initial work, often carried out during the winter to avoid disturbance to breeding and flowering species can have an initial result that included churning up of the ground if it is wet, or a significant and obvious reduction in the cover of a particular vegetation species. These impacts can be unsightly, but sites will recover in the spring as vegetation recovers and conditions become more favourable. Longer term effects could be in relation to site conditions, vegetation or fauna associated with the habitat.

To be able to monitor the effectiveness of practical works undertaken it is important that suggestions can be made with regards to how this can be achieved. Monitoring techniques could include surveying of species and habitat conditions, maintaining a species list, use of fixed point photography, use of fixed transects and quadrats for year on year comparisons. Candidates should be aware of the need for ongoing monitoring against expected Outcomes, so that they are aware that habitat management practices can often evolve in response to the conditions and requirements of individual sites.



## **National Unit specification: support notes (cont)**

### **Unit title: Practical Habitat Management (SCQF level 6)**

Candidates should carry out the habitat management tasks that they have planned for. If necessary, additional training for specific technical tasks can be provided by assessors, ideally this would take place in advance of the practical implementation of the tasks, but could be done as an introduction to the practical activities, this should be highlighted at the planning stage, however, where candidates have sufficient experience and competence in the task they should be encouraged to provide instruction to participants. Candidates should also be encouraged to communicate the findings of their risk assessment to their peers in advance of any work being carried out.

#### **In relation to Outcome 3**

Candidates should reflect on the immediate impacts of their work on the site and the habitat being managed and be able to describe this. Furthermore they should be able to use this to evaluate the impacts of this work in relation to the expected Outcomes identified in their plan.

In considering the long term effectiveness of habitat management techniques, candidates should recognise that much practical conservation management work is labour intensive and requires repeated application, sometimes on an annual basis. The limited level of financial resources within the sector often lead to a reliance on a volunteer workforce who are not usually appropriately trained or qualified to use power tools or to apply pesticides. This can result in practical management being implemented which are not the most effective, nor the most efficient, but are preferable to leaving habitats to deteriorate and lose their value.

### **Guidance on learning and teaching approaches for this Unit**

Introductory classroom work and investigation into habitat management techniques and the reasons why people manage habitats should be supported by site visits to local sites where habitat management is undertaken.

Group work should be encouraged in investigative research, planning of habitat management tasks and on site implementation of habitat management tasks. It is important that through the delivery of this Unit candidates have opportunity to explore and consider for themselves the benefits of different management techniques when they are applied in different situations. First hand experiential learning through onsite practical activities will help to develop a more detailed understanding of habitat management and raise awareness of the range of difficulties that can be encountered during practical activities and how these can be overcome.

Planning for and implementation of practical tasks should be focussed on a single area containing more than one habitat type and which is, to some more or lesser degree managed for the benefit of those habitats. This could be a nature reserve where work is carried out in line with an agreed management plan, or a game habitat managed for quarry species, alternatively it could be an area where periodic, unco-ordinated, ad-hoc practical activities take place for the benefit of the habitats present.

Suitable sites for consideration by candidates in this Unit could contain obviously discrete habitat types such as woodland and grassland, or consist of a mosaic of more subtly different habitat types such as wet grassland with open pools.

## **National Unit specification: support notes (cont)**

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### **Guidance on approaches to assessment for this Unit**

Outcomes 1, 2 and 3 could be assessed by the production of a logbook completed during site visits, whilst planning the implementation of practical tasks and by evaluating the effectiveness of these tasks once they have been undertaken.

The performance element of Outcome 2 will be assessed by direct observation of candidates carrying out their planned habitat management tasks. Evidence of this will be recorded on an observation checklist.

### **Opportunities for the use of e-assessment**

E-assessment may be appropriate for some assessments in this Unit. By e-assessment we mean assessment which is supported by Information and Communication Technology (ICT), such as e-testing or the use of e-portfolios or e-checklists. Centres which wish to use e-assessment must ensure that the national standard is applied to all candidate evidence and that conditions of assessment as specified in the Evidence Requirements are met, regardless of the mode of gathering evidence. Further advice is available in *SQA Guidelines on Online Assessment for Further Education (AA1641, March 2003)*, *SQA Guidelines on e-assessment for Schools (BD2625, June 2005)*.

### **Opportunities for developing Core Skills**

Through studying this Unit, candidates will have opportunity to develop Core Skills in *Working with Others*, *Problem Solving* and *Communication*. Whilst researching habitat management techniques, opportunities may present themselves for candidates to develop skills in *Information and Communication Technology (ICT)*.

### **Disabled candidates and/or those with additional support needs**

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering whether any reasonable adjustments may be required. Further advice can be found on our website [www.sqa.org.uk/assessmentarrangements](http://www.sqa.org.uk/assessmentarrangements)

## History of changes to Unit

Version	Description of change	Date
02	Core Skills Components Critical Thinking at SCQF level 4 and Planning and Organising at SCQF level 5 embedded.	29/09/2011

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