



Higher National Unit specification

General information

Unit title: Game and Wildlife Management: Sustainable Deer Management (SCQF level 7)

Unit code: H9PY 04

Superclass: SH

Publication date: November 2015

Source: Scottish Qualifications Authority

Version: 02

Unit purpose

This Unit is designed to provide learners with an understanding of sustainable deer management. Learners will develop underpinning knowledge of integrated land use, the objectives of sustainable deer management, the potential socio-economic impacts (both positive and negative) and consideration of natural heritage interests. The Unit will also cover deer welfare, population dynamics, ecosystem services and the monitoring and management techniques associated with sustainable deer management.

Sustainable Deer Management is about appropriate decision making and using the correct practices to manage deer as a healthy resource which benefits all nature and people. The Unit has been designed to combine the sporting elements of deer management with environmental and conservation based approaches.

Learners will focus on at least one of the six UK wild deer species in this Unit.

The Unit is suitable for those who wish to pursue a career in deer and wildlife management.

Outcomes

On successful completion of the Unit the learner will be able to:

- 1 Describe the public and private interest derived from Sustainable Deer Management.
- 2 Set objectives for Sustainable Deer Management.
- 3 Plan actions to achieve Sustainable Deer Management.
- 4 Monitor and review a deer management plan.

Higher National Unit Specification: General information (cont)

Unit title: Game and Wildlife Management: Sustainable Deer Management (SCQF level 7)

Credit points and level

2 Higher National Unit credits at SCQF level 7: (16 SCQF credit points at SCQF level 7)

Recommended entry to the Unit

There are no formal entry requirements for this Unit however it would be beneficial for learners if they have had some vocational experience within deer management, or if they had studied or were studying *Deer Biology*, *Deer Stalking*, *Game Meat Hygiene*, *Gamekeeping: An Introduction to Public Relations*, *Gamekeeping: Health and Safety* or related Units.

Core Skills

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

| | |
|----------------------|-----------------------------------|
| Complete Core Skill | None |
| Core Skill component | Critical Thinking 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.

Context for delivery

If this Unit is delivered as part of a Group Award, it is recommended that it should be taught and assessed within the subject area of the Group Award to which it contributes.

This Unit is in the mandatory section for the HNC Gamekeeping with Wildlife Management. The Unit is normally taught within the subject area of the Group Award. The Unit could also be delivered as a free-standing Unit and may provide a source for Continuing Professional Development

Equality and inclusion

This Unit specification has been designed to ensure that there are no unnecessary barriers to learning or assessment. The individual needs of learners should be taken into account when planning learning experiences, selecting assessment methods or considering alternative evidence.

Further advice can be found on our website www.sqa.org.uk/assessmentarrangements.

Higher National Unit specification: Statement of standards

Unit title: Game and Wildlife Management: Sustainable Deer Management (SCQF level 7)

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.

Where evidence for Outcomes is assessed on a sample basis, the whole of the content listed in the Knowledge and/or Skills section must be taught and available for assessment. Learners should not know in advance the items on which they will be assessed and different items should be sampled on each assessment occasion.

Outcome 1

Describe the public and private interest derived from Sustainable Deer Management.

Knowledge and/or Skills

- ◆ Meaning of sustainability
- ◆ Integrated land use
- ◆ Ecosystem services
- ◆ Socio-economic impacts:
 - Positive
 - Negative/damaging
- ◆ Community and stakeholder involvement
- ◆ Disease control

Outcome 2

Set objectives for Sustainable Deer Management.

Knowledge and/or Skills

- ◆ Collaboration with others
- ◆ Resource requirements and constraints of landscape scale objectives
- ◆ Safeguarding deer welfare
- ◆ Protecting and enhancing the natural heritage
- ◆ Reducing economic costs — woodland, agriculture and deer vehicle collisions
- ◆ Diversifying and adding value — sport, tourism and venison production
- ◆ Raising awareness of deer to support social wellbeing

Higher National Unit specification: Statement of standards

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Outcome 3

Plan actions to achieve Sustainable Deer Management.

Knowledge and/or Skills

- ◆ Population dynamics, monitoring deer populations, cull planning and population modelling
- ◆ Setting targets — size/demography of population, required habitat conditions, income, maximum number of road collisions
- ◆ Assessing impacts of deer populations on natural heritage and ecosystem services
- ◆ Invasive non-native species action
- ◆ Adaptive management — culling, fencing, shelter provision, supplementary and diversionary feeding
- ◆ Improving standards of competence
- ◆ Complying with all relevant legislation

Outcome 4

Monitor and review a deer management plan.

Knowledge and/or Skills

- ◆ Impact of management activities on deer population, welfare and cull
- ◆ Damage by deer/habitat impacts
- ◆ Social and economic benefits
- ◆ Impacts on local community
- ◆ Impacts on other land users/neighbours
- ◆ Usage by other herbivores
- ◆ Acknowledging failings and revising management

Higher National Unit specification: Statement of standards

Unit title: Game and Wildlife Management: Sustainable Deer Management (SCQF level 7)

Evidence Requirements for this Unit

For Outcome 1 learners will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can:

- ◆ define the meaning of sustainability.
- ◆ describe how different land use can be integrated.
- ◆ identify and describe three ecosystem services which could be affected by deer.
- ◆ describe beneficial Socio-economic impacts that deer can provide.
- ◆ describe negative Socio-economic impacts and damage that deer can cause.
- ◆ identify communities and stakeholders who should be involved in deer management.
- ◆ describe the importance of disease control in wild deer populations.

For Outcome 2 learners will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can:

- ◆ describe the purpose of collaborating with others when setting deer management objectives.
- ◆ identify resource requirements and constraints of landscape scale objectives.
- ◆ describe requirements to safeguard deer welfare.
- ◆ identify objectives to protect and enhance the natural heritage.
- ◆ describe how sustainable deer management can reduce economic costs to woodland, agriculture and road users.
- ◆ identify ways to diversify and add value to the deer industry through sport, tourism and venison production.
- ◆ describe ways to raise awareness of deer to support social wellbeing.

For Outcome 3 learners will need to provide evidence to demonstrate their Knowledge and/or skills by showing that they can:

- ◆ design a plan which considers population dynamics, monitoring deer populations, cull planning and population modelling.
- ◆ set targets to achieve a desired size/demography of population; required habitat conditions; income; maximum number of road collisions.
- ◆ assess impacts of deer populations on natural heritage and ecosystem services.
- ◆ describe approaches for invasive non-native species control.
- ◆ identify appropriate adaptive management techniques to achieve sustainable deer management objectives.
- ◆ identify ways to improve standards of competence in deer management.
- ◆ state relevant current legislation relating to sustainable deer management.

Higher National Unit specification: Statement of standards (cont)

Unit title: Game and Wildlife Management: Sustainable Deer Management (SCQF level 7)

For Outcome 4 learners will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can:

- ◆ describe how deer management activities are monitored and reviewed to inform cull requirements.
- ◆ identify techniques to assess damage by deer/habitat impacts.
- ◆ describe indicators to measure social and economic benefits.
- ◆ describe indicators to measure impacts on local community.
- ◆ describe indicators to measure impacts on other land users/neighbours.
- ◆ identify ways to regulate usage of land by other herbivores.
- ◆ describe the process of acknowledging failings and revising management.

The assessments for each Outcome could be combined in to a single project covering the sustainable management of at least one of the six species of wild deer in the UK:

- ◆ Red
- ◆ Roe
- ◆ Sika
- ◆ Fallow
- ◆ Muntjac
- ◆ Chinese water deer



Higher National Unit Support Notes

Unit title: Game and Wildlife Management: Sustainable Deer Management (SCQF level 7)

Unit Support Notes are offered as guidance and are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 80 hours.

Guidance on the content and context for this Unit

Sustainable Deer Management is about appropriate decision making and using the correct practices to manage deer as a healthy resource which benefits all nature and people. The Unit has been designed to combine the sporting elements of deer management with environmental and conservation based approaches.

Outcome 1 requires learners to investigate the public and private interest which can be derived from sustainable deer management. There will be an opportunity to develop knowledge and understanding of the conflicts which can arise when competing land use objectives are not integrated. The understanding which learners develop can then be used to consider an effective and forward looking approach to sustainable deer management planning.

Outcome 2 requires learners to set objectives for sustainable deer management which meet a wide range of public and private interests. For example, this could include maintaining a low deer density in one area to allow a nationally important habitat to recover and maintaining a higher deer density in another area to meet sporting objectives. Learners will learn how a balance can be achieved through collaboration and compromise.

Outcome 3 requires learners to plan actions to achieve sustainable deer management. In this part of the Unit the learners will develop their understanding of the management techniques which are used to help set targets and identify the correct actions to achieve deer management plan objectives. This includes population dynamics, income to be generated from deer, reduction in road casualties and who/when/how/where.

Outcome 4 requires learners to learn how deer management activities are monitored and reviewed to inform future cull requirements. There will be an opportunity to learn about using indicators to assess performance and monitoring techniques to review population or habitat information. This is an important part of the sustainable deer management planning process which is used to evolve deer management decisions by taking account of other interests.

Higher National Unit Support Notes (cont)

Unit title: Game and Wildlife Management: Sustainable Deer Management (SCQF level 7)

Relationship to NOS:

| | |
|-----------|--|
| LANGa2 | Monitor Game Populations and Habitat |
| LANGa5 | Assist with the Management of Public Relations and Access to a Sporting Estate |
| LANCU49 | Stalk and Cull Deer |
| LANCU50 | Prepare Deer For Human Consumption |
| LANGa3 | Maintain Game Populations |
| LANGa10 | Care for Animals Used in Support of Gamekeeping and Wildlife Management |
| LANGa11 | Maintain and Improve Game and Wildlife Habitat |
| LANCU57 | Manage Fisheries Habitat |
| LANCU59 | Implement Procedures to Protect Fisheries |
| LANCS70 | Identify and assess rural land use |
| LANCS71 | Identify rural business enterprise opportunities |
| CFABAA615 | Communicate in a business environment |
| LANEnC2 | Consult and work with the local community |
| LANCU3 | Promote, monitor and maintain health, safety and security |
| LANGa20 | Contribute to the prevention of rural crime on a sporting estate |
| LANEM15 | Develop an awareness of environmental good practice |
| LANTW63 | Develop a woodland management plan |
| LANAgC3 | Monitor and maintain the healthy growth of crops |
| LANAgM8 | Produce, implement and monitor a farm environmental management plan |
| LANGa15 | Contribute to the management of game habitat |
| LANGa21 | Contribute to the development of a sporting estate |
| LANGa23 | Contribute to deer management planning |
| LANCU60 | Contribute to the management of a fishery |
| LANEnC29 | Research and prepare environmental interpretive activities |
| LANEnC1 | Promote responsible public use of outdoor sites |
| LANGa14 | Contribute to the Development of Public Relations for a Sporting Estate |
| LANGa22 | Control the Production of Game Meat for Human Consumption |

Guidance on approaches to delivery of this Unit

This Unit may be delivered as a stand-alone Unit for Continuing Professional Development (CPD). However, it will often be delivered as part of the HNC in Gamekeeping and Wildlife Management, which is primarily designed to provide learners with technical or professional knowledge and skills related to a specific occupational area. It would be expected that those who successfully completed the award would progress to work as an underkeeper or a single-handed keeper. The emphasis on the delivery of this Unit is seasonally based. This should allow the Unit to be delivered in a way that enables the learner to appreciate its relevance to the occupational area concerned.

Higher National Unit Support Notes (cont)

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Guidance on approaches to assessment of this Unit

Evidence can be generated using different types of assessment. The following are suggestions only. There may be other methods that would be more suitable to learners.

Centres are reminded that prior verification of centre-devised assessments would help to ensure that the national standard is being met. Where learners experience a range of assessment methods, this helps them to develop different skills that should be transferable to work or further and higher education.

The Unit could be assessed by four separate assessments projects or by holistic project covering all assessment requirements. Conditions of assessment is open-book

Opportunities for 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 social software. Centres which wish to use e-assessment must ensure that the national standard is applied to all learner evidence and that conditions of assessment as specified in the Evidence Requirements are met, regardless of the mode of gathering evidence. The most up-to-date guidance on the use of e-assessment to support SQA's qualifications is available at www.sqa.org.uk/e-assessment.

Opportunities for developing Core and other essential skills

There is no automatic certification of Core Skills or Core Skill components in this Unit. However there may be opportunities to gather evidence for Core Skills *in Communication, Numeracy* and *Problem Solving* at SCQF level 6.

This Unit has the Critical Thinking component of Problem Solving embedded in it. This means that when candidates achieve the Unit, their Core Skills profile will also be updated to show they have achieved Critical Thinking at SCQF level 5.

History of changes to Unit

| Version | Description of change | Date |
|---------|---|------------|
| 02 | Core Skills Component Critical Thinking at SCQF level 5 embedded. | 24/11/2015 |
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General information for learners

Unit title: Game and Wildlife Management: Sustainable Deer Management (SCQF level 7)

This section will help you decide whether this is the Unit for you by explaining what the Unit is about, what you should know or be able to do before you start, what you will need to do during the Unit and opportunities for further learning and employment.

This Unit is designed to provide you with an understanding of sustainable deer management. The Unit covers underpinning knowledge on integrated land use, ecosystem services, socio-economic beneficial/negative impacts, collaborating with others, deer welfare, natural heritage interests, objectives for sustainable deer management, population dynamics, monitoring and management techniques associated with sustainable deer management.

You will focus on at least one of the six UK wild deer species in this Unit (red; roe; sika; fallow; muntjac; Chinese water deer).

The Unit is suitable for you if you wish to pursue a career in deer and wildlife management.

On successful completion of the Unit you will be able to:

- ◆ describe the public and private interest derived from Sustainable Deer Management.
- ◆ set objectives for Sustainable Deer Management.
- ◆ plan actions to achieve Sustainable Deer Management.
- ◆ monitor and review a deer management plan.

You may be assessed by producing a project covering all Outcomes and all assessment criteria. You will also have the opportunity to develop your Core Skills in *Communication*, *Numeracy* and *Problem Solving*.