LANEnC3 - SQA Unit Code H5A1 04

Survey and report on the condition of the environment

Overview

This standard is concerned with carrying out basic survey work following the planning process. The survey will be related to the natural environment (on land or at sea) including biodiversity and public access. It can involve hands-on measurement in the field, remote measurement using sensing equipment (such as aerial photography) or the collection of samples for analysis. The concepts of space (mapping) and changes through time (monitoring) are fundamental to the type of work undertaken. This addresses the ability to undertake a survey and to make a report on the condition of the environment.

Although you are not expected to have extensive identification skills, you should be familiar with the use of keys and field guides, and have a broad understanding of the methodologies used for each of the subjects listed within the standard. In most surveys you will be expected to use both primary and secondary sources of data, for example using existing (secondary) data to inform your survey to collect new (primary) data.

This standard also covers reporting on the findings of surveys that you have carried out.

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Performance criteria

You must be able to:

P1 clearly establish your role in the survey activity

P2 use survey techniques in accordance with the survey specifications

P3 collect data that meets the requirements of the survey specifications

P4 record all data legibly, fully and in the format specified

P5 take the appropriate prompt action where data cannot be obtained in accordance with the specifications

P6 carry out all work in accordance with relevant environmental and health and safety legislation, risk assessment requirements, codes of practice and company policies, including wildlife and access legislation

P7 ensure that the effects of your work and access do not adversely affect the environment

P8 complete accurate reports which contain the necessary supporting data

P9 respond to requests for further clarification and explanation of reports

P10 report within the required timescale and in accordance with organisational procedures

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Knowledge and understanding

You need to know and understand:

K1 your responsibilities in relation to survey activity

K2 the range of survey techniques available, their advantages and disadvantages and principles of use

K3 the objectives of the survey, potential sources of data and their value

K4 the importance of seeking validation and verification of species identification

K5 effective methods of recording data collected

K6 how to assess the quality and usefulness of data collected and the actions to take if the survey aims are compromised

K7 your responsibilities under current environmental and health and safety legislation, codes of practice and company policies including wildlife and access legislation

K8 the intended purpose and required content of the reports

K9 ways of presenting information clearly and in a manner appropriate to the intended user

K10 methods of communicating clearly and accurately

K11 the timescales within which reporting must take place and the reasons for this

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Scope/range

Collect and record data for surveys on:

1 plants
2 animals
3 people
4 pollution or accidental damage
5 habitat
6 access networks or zoning in conservation areas
7 archaeology

Collect the following types of data:

8 quantitative
9 qualitative

Investigate the following sources of data:

10 primary
11 secondary

Use the following survey techniques:

12 mapping/aerial photographs
13 use of GPS equipment and GIS software
14 counting
15 trapping
16 ecological surveys

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Glossary

The term ‘survey' is open to broad interpretation due to the wide range of surveys, including physical, biological and cultural, that are carried out in different contexts, using a range of techniques. The following list gives a guide to survey themes and the minimum level of complexity that would be appropriate:

surveys of biodiversity: the presence or abundance or distribution of a particular species of plant or animal. Working with diversity indices.

surveys using standard classification systems used in conservation: for example, a Nature Conservation Council Phase 1 habitat survey which uses the recognition of groups of plant species to allow a terrestrial habitat classification, such as mapping and counting of indicator species for an ancient woodland.

surveys of people: for example, counting the number of visitors using public right of way or promoted access trails, a beach, conduct visitor interviews or evaluate local support for a project.

surveys of effects of farming/fishing/tourism activities, such as an index of grazing on moorland, damage being caused to coastal dunes by visitors, the effectiveness of ‘motor-bike traps' on a bridleway or the destruction of marine seagrass beds by boat anchoring.

surveys of habitat: that is the physical environment of any community, involving factors such as vegetation, geology, geomorphology, soils, sediments, topography, temperature, wind, rain, river flow, tides and waves.

surveys of contamination of the natural environment as a result of pollution: investigations might look at the extent and intensity of chemical damage to the habitat and associated biological impacts.

surveys of the status of conservation effort: examples might include mapping access networks, the condition of a footpath network and ancillary structures (signs, handrails, access points), archaeological features or the level of erosion to river-retaining banks, sand dunes and the foreshore.

Links To Other NOS

LANEnC8 - Identify species

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