

NOTICE 558 OF 2001**SOUTH AFRICAN QUALIFICATIONS AUTHORITY (SAQA)**

In accordance with regulation 24(c) of the National Standards Bodies Regulations of 28 March 1998, the Standards Generating Body (SGB) for

Nature Conservation

Registered by NSB 01, Agriculture and Nature Conservation, publishes the following unit standards-based qualifications for public comment.

This notice contains the titles, fields, sub-fields, NQF levels, credits, and purposes of the qualifications, and the titles and specific outcomes of the unit standards upon which qualifications are based. The full qualifications and unit standards can be accessed via the SAQA web-site at www.saq.co.za. Copies may also be obtained from the Directorate of Standards Setting and Development at the SAQA offices, 659 Pienaar street, Brooklyn, Pretoria.

Comment on the qualifications and unit standards should reach SAQA at the address **below and no later than Monday 2 April 2001**. All correspondence should be marked **Standards Setting – SGB for Nature Conservation** and addressed to

The Director: Standard Setting and Development
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Attention: Mrs S.Vasuthevan


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SAMUEL B.A. ISAACS
EXECUTIVE OFFICER

UNIT STANDARDS FOR NATURE CONSERVATION**UNIT STANDARDS TITLES NQF LEVEL 5**

1. Title: Handle Weapons
2. Title: Manage Area Integrity
3. Title: Enforce Conservation Compliance
4. Title: Understand And Develop Conservation Ethics
5. Title: Construct And Maintain Infrastructure
6. Title: Construct Paths / Tracks And Maintain Road Networks
7. Title: Operate And Maintain A Vehicle In Conservation Areas
8. Title: Control Erosion
9. Title: Facilitate Conservation Understanding
10. Title: Implement Integrated Catchment Management
11. Title: Demonstrate Knowledge Of Indigenous Plant Management
12. Title: Apply Conservation Management Planning
13. Title: Demonstrate A Basic Knowledge Of Animal Management
14. Title: Manage Cultural Heritage Resources In Conservation Areas
15. Title: Manage Pollution And Pollution Control
16. Title: Plan And Co-Ordinate Problem Plant Control
17. Title: Plan And Coordinate Conservation Removal Operations
18. Title: Crew A Vessel
19. Title: Manage Veld Burn Operations
20. Title: Manage Water Provision
21. Title: Erect, Monitor And Maintain Wildlife Fencing

UNIT STANDARDS FOR CONSERVATION**UNIT STANDARDS TITLE AND SPECIFIC OUTCOMES – NQF LEVEL 5****1. Title: Handle Weapons**

- Specific Outcome 1.1: Safely handle and maintain a firearm in accordance with laid down rules, procedures and conditions
- Specific Outcome 1.2: Safely secure firearm in accordance with legal requirements
- Specific Outcome 1.3: Shoot a firearm in accordance with laid down rules, procedures and conditions

2. Title: Manage Area Integrity

- Specific Outcome 2.1: Monitor species
- Specific Outcome 2.2: Establish good working relationships with local communities
- Specific Outcome 2.3: Maintain integrity
- Specific Outcome 2.4: Identify potential ecological impacts
- Specific Outcome 2.5: Implement the Security Plan

3. Title: Enforce Conservation Compliance

- Specific Outcome 3.1: Apply appropriate legislation at provincial, national and international level
- Specific Outcome 3.2: Carry out *in situ* inspections to ensure compliance with permits issued, in a pro-active and reactive manner
- Specific Outcome 3.3: Institute legal proceedings and prosecutions
- Specific Outcome 3.4: Gather and report information
- Specific Outcome 3.5: Comply with procedures with respect to collection and submission of evidence for Convention for the International Trade in Endangered species
- Specific Outcome 3.5: Identify parts and derivatives of priority species
- Specific Outcome 3.6: Cope with and manage psychological stress in self and others
- Specific Outcome 3.7: Demonstrate proficiency in self-defence techniques

UNIT STANDARDS TITLE AND SPECIFIC OUTCOMES – NQF LEVEL 5**4. Title: Understand and Develop Conservation Ethics**

- Specific Outcome 4.1 Identify values, situations and behaviours which have caused global environmental crises, and which can be addressed at a local level
- Specific Outcome 4.2: Articulate differing interests and values underlying local environmental conflict
- Specific Outcome 4.3: Develop a personal set of extrinsic and intrinsic values of ecosystems including their bio-cultural components
- Specific Outcome 4.4: Distinguish differing interests and values underlying current practices in "Conservation"
- Specific Outcome 4.5: Interact with people to address issues of conflict of a bioregional context

5. Title: Construct and Maintain Infrastructure

- Specific Outcome 5.1: Maintain infrastructure on a protected area
- Specific Outcome 5.2: Repair leaks, blockages, inoperable plumbing equipment (sewerage) and construct ablution facilities
- Specific Outcome 5.3: Repair gas appliances and replace lights and fuses
- Specific Outcome 5.4: Do basic carpentry, bricklaying, painting, paving and barricading
- Specific Outcome 5.5: Erect log / wooden structures
- Specific Outcome 5.6: Glazing
- Specific Outcome 5.7: Maintain wildlife fencing
- Specific Outcome 5.8: Welding and brazing
- Specific Outcome 5.9: Pumps and boreholes

UNIT STANDARDS TITLE AND SPECIFIC OUTCOMES – NQF LEVEL 5**6. Title: Construct Paths / Tracks & Maintain Road Networks**

- Specific Outcome 6.1: Recognise problems in proposed paths/tracks placement
- Specific Outcome 6.2: Construct and maintain paths and tracks
- Specific Outcome 6.3: Maintain road surfaces
- Specific Outcome 6.4: Supervise use of, operation and maintenance of equipment
- Specific Outcome 6.5: Ensure effective drainage of paths/tracks and roads

7. Title: Operate and Maintain A Vehicle In Conservation Areas

- Specific Outcome 7.1: Exhibit skills for the safe operation of vehicles
- Specific Outcome 7.2: Exhibit competence in the towing of trailers, operation of auxiliary equipment and recovery vehicles
- Specific Outcome 7.3: Be able to carry out pre-driving maintenance checks
- Specific Outcome 7.4: Be able to carry out basic routine maintenance tasks
- Specific Outcome 7.5: Inspect and report any more extensive faults to appropriate person, according to company prescription for repair

8. Title: Control Erosion

- Specific Outcome 8.1: Identify soil loss and the nature thereof, taking into account the type, intensity and causes
- Specific Outcome 8.2: Decide on appropriate action(s) to minimise further soil loss and implement them
- Specific Outcome 8.3: Monitor the impact of the management action

UNIT STANDARDS TITLE AND SPECIFIC OUTCOMES – NQF LEVEL 5**9. Title: Facilitate Conservation Understanding**

- Specific Outcome 9.1: Design and implement a childrens' environmental education programme
- Specific Outcome 9.2: Design and implement an adults' environmental education programme
- Specific Outcome 9.3: Design and implement an environmental education programme for visitors to a conservation area

10. Title: Implement Integrated Catchment Management

- Specific Outcome 10.1: Identify the essential components and their functions in a catchment system
- Specific Outcome 10.2: Identify, report and predict present and future environmental problems that may be caused by human activity in catchment systems
- Specific Outcome 10.3: Implement corrective measures for environmental problems identified and / or predicted, in consultation / collaboration with local communities and other stakeholders
- Specific Outcome 10.4: Monitor the quality and quantity of water in catchment areas
- Specific Outcome 10.5: Monitor the quality of catchment area habitat

11. Title: Demonstrate Knowledge of Indigenous Plant Management

- Specific Outcome 11.1: Identify common and threatened indigenous plants, their parts and their uses in his/her area
- Specific Outcome 11.2: Identify significant plant and animal associations and their fluctuations
- Specific Outcome 11.3: Interpret at a local level impacts and implications of management actions / inactions
- Specific Outcome 11.4: Harvest plants according to management guidelines.
- Specific Outcome 11.5: Ascribe values to common species
- Specific Outcome 11.6: Propagate and re-introduce indigenous plants

UNIT STANDARDS TITLE AND SPECIFIC OUTCOMES – NQF LEVEL 5

Specific Outcome 11.7: Undertake basic plant monitoring techniques

Specific Outcome 11.8: Explain management actions in the context of different ecological levels of complexity

12. Title: Apply Conservation Management Planning

Specific Outcome 12.1: Follow an accepted format when planning work activities in a conserved area

Specific Outcome 12.2: Follow a planning cycle in carrying out an action

Specific Outcome 12.3: Use a management plan, to plan priorities over the period of a year

Specific Outcome 12.4: Assess and report on goals achieved

13. Title: Demonstrate A Basic Knowledge of Animal Management

Specific Outcome 13.1: Identify animal form and function

Specific Outcome 13.2: Identify animals

Specific Outcome 13.3: Interpret ecological interactions

Specific Outcome 13.4: Identify and describe habitat requirements of key species in South Africa

Specific Outcome 13.5: Implement basic monitoring techniques for local area

Specific Outcome 13.6: Collect and preserve animal specimens

Specific Outcome 13.7: Explain management actions in the context of different ecological levels of complexity

14. Title: Manage Cultural Heritage Resources In Conservation Areas

Specific Outcome 14.1: Explain the need for cultural heritage management

Specific Outcome 14.2: Interpret cultural management in terms of the cultural heritage legislation in South Africa

Specific Outcome 14.3: Assist the development, implementation and maintenance of a cultural heritage management plan

UNIT STANDARDS TITLE AND SPECIFIC OUTCOMES – NQF LEVEL 5

Specific Outcome 14.4: Manage cultural heritage sites

Specific Outcome 14.5: Monitor local lifestyles, practices and customs

Specific Outcome 14.6: Interpret cultural heritage sites

15. Title: Manage Pollution and Pollution Control

Specific Outcome 15.1: Identify the type and degree of pollution, and the resulting problems

Specific Outcome 15.2: Network and liaise with the responsible environmental pollution experts and with communities where necessary

Specific Outcome 15.3: Propose corrective measures for some pollution situations

Specific Outcome 15.4: Undertake follow-up assessment and monitoring procedures at the conclusion of the project

16. Title: Plan and Co-Ordinate Problem Plant Control

Specific Outcome 16.1: Identify and locate problem plants, declared weeds and alien invasive plants

Specific Outcome 16.2: Interpret the impact problem plants have on an ecosystem and the dangers they pose

Specific Outcome 16.3: Determine an appropriate approach to deal with the threat

Specific Outcome 16.4: Supervise and coach personnel to control problem plants effectively and safely

Specific Outcome 16.5: Implement post-operational procedures in order to ensure treated areas are followed up and effected areas are managed effectively

Specific Outcome 16.6: Facilitate the utilisation of by-products where relevant

UNIT STANDARDS TITLE AND SPECIFIC OUTCOMES – NQF LEVEL 5**17. Title: Plan and Co-ordinate Conservation Removal Operations**

Specific Outcome 17.1: Prepare for culling operations

Specific Outcome 17.2: Undertake the correct preparation for culling operations relating to different techniques

Specific Outcome 17.3: Carry out the culling operations

Specific Outcome 17.4: Supervise and collect scientific data

18. Title: Crew A Vessel

Specific Outcome 18.1: Manoeuvre a powered vessel less than 40 tonnes, under the supervision of a qualified skipper, in various water and weather conditions to carry out operations with small commercial vessels in sheltered and offshore waters

Specific Outcome 18.2: Take appropriate action in emergency situations involving the safety of the vessel and those on board or the safety of other vessels and persons.

Specific Outcome 18.3: Assess whether the safety and equipment on board a vessel meets safety requirements

Specific Outcome 18.4: Assess the forecast weather conditions and actual weather conditions to determine actions for the safe operation of the vessels

Specific Outcome 18.5: Avoid collisions

Specific Outcome 18.6: Apply navigation techniques to ensure the safe navigation of a small vessel in sheltered and offshore waters

Specific Outcome 18.7: Maintain and use ropes

19. Title: Manage Veld Burn Operations

Specific Outcome 19.1: Assess physical conditions to determine the type of fire according to management objectives

Specific Outcome 19.2: Initiate and implement preparation phase to achieve determined management objectives

UNIT STANDARDS TITLE AND SPECIFIC OUTCOMES – NQF LEVEL 5

Specific Outcome 19.3: Initiate controlled fire to achieve management objectives

Specific Outcome 19.4: Monitor fire behaviour

Specific Outcome 19.5: Extinguish a fire

20. Title: Manage Water Provision

Specific Outcome 20.1: Critically evaluate water provision

Specific Outcome 20.2: Demonstrate an understanding of the water requirements of different wildlife species (inter- and intra-relations of drinking habits)

Specific Outcome 20.3: Select the best provision method for different users and conditions

Specific Outcome 20.4: Maintain water provision sites and equipment

21. Title: Erect, Monitor and Maintain Wildlife Fencing

Specific Outcome 21.1: Plan and erect a fence on or inside the boundaries of the protected area, taking into account social impacts

Specific Outcome 21.2: Initiate and implement a preparation phase to achieve determined objectives

Specific Outcome 21.3: Construct and complete the fence according to specifications including electrification

Specific Outcome 21.4: Patrol and maintain the fence on a regular basis

Specific Outcome 21.5: Monitoring the fence for effectiveness

Specific Outcome 21.6: Remove unnecessary fences