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SOUTH AFRICAN QUALIFICATIONS AUTHORITY (SAQA)

In accordance with regulation 24(2)(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.

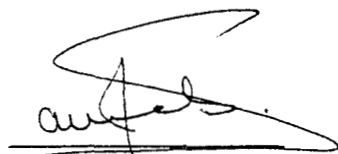
This notice contains the titles, fields, sub-fields, NQF levels, credits, titles and specific outcomes of the unit standards. The unit standards and qualifications can be accessed via the SAQA website at www.sqa.org.za.

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 unit standards and qualifications should reach SAQA at the address below *by no later than 18 September 2001*. All correspondence should be marked **Standards Setting – SGB for Nature Conservation**, and be addressed to:

The Director: Standards Setting and
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pp SAMUEL B.A. ISAACS
EXECUTIVE OFFICER

SOUTH AFRICAN QUALIFICATIONS AUTHORITY**NATIONAL CERTIFICATE IN CONSERVATION: FISHERIES RESOURCES
GUARDIANSHIP NQF LEVEL 4**

Field: Agriculture and Nature Conservation

Sub-field: Nature Conservation

NQF level: 4

Credits: 135

Purpose of the Qualification:

A learner assessed as competent against this qualification will be able to utilise conservation specific competence to contribute to the sustainable management of fisheries resources and the conservation of marine and coastal ecosystems.

This competence will contribute to the sustainability of fisheries resources while providing the learner with a basis for further learning in higher education.

The qualification has been developed to assist with professionalisation across the conservation sub-sector.

Rationale for the qualification

Like many other aspects of life South Africa, the sector into which nature conservation falls is overwhelmingly defined by apartheid history. Despite the diversity of the sub-sectors within the sector, some patterns do exist across the sector, which are worth noting. Large enterprises have treated human resource management largely as a personnel function and directed energies and systems at the mechanisms for managing personnel rather than aligning human management with strategic priorities of organization. There are massive workplace and training inequities with regard to 'race'.

During the process of designing the qualifications, the many 'non-conservation' positions, people and areas of activity, which will need to use some of the conservation standards, must be considered. These include: tour guides, organized traditional practitioners, informal settlement, organized community, national and provincial conservation authorities, development organization and the private sector.

Learning assumed to be in place

It is assumed that the learner entering a programme leading to this qualification has achieved a Conservation Certificate (NQF2), or has relevant industry experience. The learner will have communication, language proficiency and mathematics skills at NQF level 2 or equivalent.

Exit level outcomes

On achieving this qualification the learner will be able to:

- 1 Function in operational situations without regular supervision while maximising efficiency and effectiveness.
- 2 Exercise a leadership role in operational situations in order to enhance performance and productivity.
- 3 Implement management planning practices, e.g. integrated catchment management, plant and animal management, security and legal aspects and cultural heritage management, in order to monitor progress and performance against planned goals.
- 4 Undertake operational functions while continuously monitoring and adapting own performance as required.
- 5 Use firearms competently.
- 6 Develop a set of values and ethics regarding conservation and environmental issues.
- 7 Maintain infrastructure in conserved areas including paths and road networks.
- 8 Enforce compliance with fisheries legislation
- 9 Communicate effectively with the public to further conservation awareness.

Integrated assessment

Integrated assessment at the level of qualification provides an opportunity for learners to show that they are able to integrate concepts, ideas and actions across unit standards to achieve competence that is grounded and coherent in relation to the purpose of the qualification.

Integrated assessment must judge the quality of the observable performance, but also the quality of the thinking that lies behind it. Assessment tools must encourage learners to give an account of the thinking and decision-making that underpin their demonstrated performance. Some assessment practices will be of a more practical nature while others will be of a more theoretical nature. The ratio between action and interpretation is not fixed, but varies according to the type and level of qualification. The assessment must ascertain whether the learner is capable of adapting and combining the competences of a number of unit standards in order to carry out a complex task in an effective way.

A broad range of task-orientated and theoretical assessment tools may be used, with the distinction between practical knowledge and disciplinary knowledge maintained so that each takes its rightful place.

In particular assessors should check for:

The learner must demonstrate an ability to consider a range of options and make decisions about:

1. Ways of seeing and interpreting any given conservation situations
2. Operational methods and techniques to apply in any given situation
3. Resource management actions required in support of specified conservation agendas

The learner must demonstrate an understanding of:

1. Fisheries management planning processes
2. Components / elements / issues that require management actions
3. A knowledge of area or other contextual issues that underpin the competent management of fisheries

The learner must demonstrate the ability to:

1. On the basis of available information, critically evaluate management decisions taken
2. Justify decisions made with respect to the management of fisheries resources
3. Reflect on the soundness of decisions made and on any adjustments that might be necessary

International comparability

The African continent with its unique wildlife, has led to the development of standards of practice unique to Africa. These standards have been written by fisheries and conservation experts involved in international debates and practices in this area, and their knowledge has been captured in the structure and content of the standards.

An exercise will shortly be underway to compare and share standards in fisheries management across SADC and the results and findings will be fed into future revisions of the standards.

Recognition of prior learning

Any learner wishing to be directly assessed may arrange to do so, without attending further training or education. The assessor and learner will decide together on the most appropriate assessment route to be taken.

Moderation options

Anyone assessing a learner against these unit standards must be registered as an assessor with the relevant ETQA.

Any institution offering learning that will enable achievement of these unit standards or will assess these unit standards must be accredited as a provider with the relevant ETQA.

Moderation of assessment will be overseen by the relevant ETQA according to the moderation guidelines in the relevant qualification and the agreed ETQA procedures.

Therefore anyone wishing to be assessed against these unit standards may apply to be assessed by any assessment agency, assessor or provider institution, which is accredited by the relevant ETQA.

Qualification Matrix for : National Certificate in Conservation: Fisheries Resources Guardianship (NQF4) – 135 credits

	Level 2	Level 4	Level 5	Total	
Fundamental	1. Operate a personal computer 2. Organise oneself in the workplace	1. Plan and conduct research 2. Analyse and understand social issues 3. Function in a team 4. Interact orally and in writing in the workplace 5. Collate, understand and communicate workplace data 6. Demonstrate an understanding of societal values and ethics 7. Demonstrate an understanding of issues affecting people with special needs Learners are required to take 2 credits from the sub-field of Communication & Language and 11 credits from the sub-field of Mathematical Science, both at NQF 4	6 4 4 10 5 4 4 2 11	59	
CORE	1. Perform conservation guardianship 2. Understand nature conservation issues 3. Manage cultural heritage resources in the field 4. Perform basic infra-structural maintenance 5. Demonstrate knowledge of conservation ethics 6. Identify and monitor local wildlife 7. Control problem animals 8. Collect field specimens 9. Maintain occupational health and safety	1. Contribute to information distribution regarding HIV/AIDS in the workplace	4 4	53	
Elective			1. Utilise know-ledge of fishing techniques to ensure legal compliance 2. Demonstrate a working knowledge of marine organisms 3. Demonstrate knowledge of the fishing industry and relevant role-players in your local area	3 10 10	23
Total			54	135	

UNIT STANDARDS FOR CONSERVATION: FISHERIES RESOURCES GUARDIANSHIP

Unit Standards at NQF Level 2

- * Title: Operate a personal computer system (ID 7547)
- * Title: Organise oneself in the workplace (ID 8618)
- * Title: Perform conservation guardianship (ID 8332)
- * Title: Understand nature conservation issues (ID 8348)
- * Title: Manage cultural heritage resources in the field (ID 8346)
- * Title: Perform basic infra-structural maintenance (ID 8328)
- * Title: Demonstrate knowledge of conservation ethics (ID 8336)
- *• Title: Identify and monitor local wildlife (ID 8345)
- * Title: Control problem animals (ID 8347)
- * Title: Collect field specimens (ID 8333)
- * Title: Maintain occupational health and safety (ID 8493)

Unit Standards at NQF Level 4

- * Title: Plan and conduct research (ID 8559)
- * Title: Analyse and understand social issues (ID 8591)
- * Title: Function in a team (ID 8561)
- * Title: Interact orally and in writing in the workplace (ID 8556)
- * Title: Collate, understand and communicate workplace data (ID 8558)
- * Title: Demonstrate an understanding of societal values and ethics (ID 8612)
- * Title: Demonstrate an understanding of issues affecting people with special needs (ID 8570/8617)
- *• Title: Contribute to information distribution regarding HIV/AIDS in the workplace (ID 8555)

Unit Standards at NQF Level 5

1. Title: Utilise knowledge of fishing techniques to ensure legal compliance
 2. Title: Demonstrate a working knowledge of marine organisms
 3. Title: Demonstrate knowledge of the fishing industry and relevant role-players in your local area
- * Title: Handle Weapons (ID 8350)

Unit standards titles and specific outcomes at NQF level 2

- * Title: Operate a personal computer system (ID 7547)
- * Title: Organise oneself in the workplace (ID 8618)
- * Title: Perform conservation guardianship (ID 8332)
- * Title: Understand nature conservation issues (ID 8348)
- *• Title: Manage cultural heritage resources in the field (ID 8346)
- * Title: Perform basic infra-structural maintenance (ID 8328)
- * Title: Demonstrate knowledge of conservation ethics (ID 8336)
- * Title: Identify and monitor local wildlife (ID 8345)
- * Title: Control problem animals (ID 8347)
- * Title: Collect field specimens (ID 8333)
- *• Title: Maintain occupational health and safety (ID 8493)

Unit standards titles and specific outcomes at NQF level 4

- * Title: Plan and conduct research (ID 8559)
- *• Title: Analyse and understand social issues (ID 8591)

- * Title: Function in a team (ID 8561)
- * Title: Interact orally and in writing in the workplace (ID 8556)
- * Title: Collate, understand and communicate workplace data (ID 8558)
- * Title: Demonstrate an understanding of societal values and ethics (ID 8612)
- * Title: Demonstrate an understanding of issues affecting people with special needs (ID 8570/8617)
- * Title: Contribute to information distribution regarding HIV/AIDS in the workplace (ID 8555)

Unit standards titles and specific outcomes at NQF level 5

1. Title : Utilise knowledge of fishing techniques to ensure legal compliance

Specific outcome 1. Identify the types of commercial, artisanal, subsistence and recreational fishing activities that are practised in his area of operation.

Range: (Legal activities practised in the area where the person is based, i.e. Hout Bay, Port St Johns etc. Types of fishing would include, for instance, pelagic fishing, long lining, trap fishing for rock lobster.)

Specific outcome 2. Identify non-extractive activities

Range: (Organised Scuba diving tours. Whale watching. Bird watching.)

Specific outcome 3. Identify probable illegal activities in the area.

Range: (Poaching. Using illegal fishing methods. Illegal boating activities.)

Specific outcome 4. Report on own activities.

Range: (Illegal activities.)

2. Title : Demonstrate a working knowledge of marine organisms

Specific outcome 1 Identify significant interactions between organisms, groups of organisms and the environment.

Range: (Predator prey relationships. Consequences of extractive use of resources. Biodiversity)

Specific outcome 2 Identify organisms to species level by using the accepted methods of identification.

Range: (Physical examination of specimens. Morphometric characteristics, such as spine and ray counts in fish. Size and weight of species. Physical characteristics of species. Use of accepted identification guides and techniques.)

Specific outcome 3 Consider procedures for identifying organisms that are not in their natural state.

Range: (Organisms have been processed e.g. skinned, dried. Parts of organisms, e.g. fish that have been headed and gutted.)

- Specific outcome 4 Use correct sampling procedures for assessing the efficacy of management measures.
Range: (Take unbiased samples of organisms. Take a suitable sub-sample of large catches and divide into species etc. Use correct methods of measuring species.)
- Specific outcome 5 Explain management actions in the context of biological and ecological parameters.
Range: (Local environment, biosphere, community interactions, biodiversity. Size and bag limits.)
- Specific outcome 6 Describe the risks posed to marine organisms by pollution.
Range: (Solid pollutants, e.g. plastic, etc. Chemical pollution. Biological "pollution", e.g. (harmful algal blooms, eutrophication.)
- Specific outcome 7 Present the findings in an acceptable way.
Range: (Evidence in court. Sworn statements. Reports.)

3. Title : Demonstrate knowledge of the fishing industry and relevant role-players in your local area

- Specific outcome 1 Identify the main role players in the local industry.
Range: (Managers of factories. Angling clubs. Boat clubs. Conservation NGOs. Civil Society. Community groups.)
- Specific outcome 2 Describe the structure of the fishing industry in your local area.
Range: (Processing methods and products. Location of processing facilities. Location of factories and markets.)
- Specific outcome 3 Apply knowledge of relevant legislation to interact with the stakeholders in your local area.
Range: (Fisheries regulations. Zoning. Health and safety.)
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