

**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

**Environmental Science, Environmental Management & Waste Management**

registered by Organising Field 10 – Physical, Mathematical, Computer and Life Sciences publishes the following Qualification and Unit Standards for public comment.

This notice contains the titles, fields, sub-fields, NQF levels, credits, and purpose of the Qualification and Unit Standards. The full Qualification and Unit Standards can be accessed via the SAQA web-site at [www.saqa.org.za](http://www.saqa.org.za). Copies may also be obtained from the Directorate of Standards Setting and Development at the SAQA offices, SAQA House, 1067 Arcadia Street, Hatfield, Pretoria.

Comment on the Qualification and Unit Standards should reach SAQA at the address below and **no later than 18 May 2009**. All correspondence should be marked **Standards Setting – SGB for Environmental Science, Environmental Management & Waste Management** and addressed to

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D. MPHUTHING

ACTING DIRECTOR: STANDARDS SETTING AND DEVELOPMENT



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

**QUALIFICATION:**  
**National Certificate: Environmental Management**

SAQA QUAL ID		QUALIFICATION TITLE	
66789		National Certificate: Environmental Management	
ORIGINATOR		PROVIDER	
SGB Environmental Science, Env Mght and Waste Mght			
QUALIFICATION TYPE	FIELD	SUBFIELD	
National Certificate	10 - Physical, Mathematical, Computer and Life Sciences	Environmental Sciences	
ABET BAND	MINIMUM CREDITS	NQF LEVEL	QUAL CLASS
Undefined	134	Level 5	Regular-Unit Stds Based

***This qualification does not replace any other qualification and is not replaced by another qualification.***

**PURPOSE AND RATIONALE OF THE QUALIFICATION**

**Purpose:**

This Qualification is for any individual who is, or wishes to be, involved as an officer in the environmental management sector especially in the fields of environmental science, environmental management and waste management. While the focus of this Qualification is on the fields mentioned above, it is possible that other services or aspects could also be included in the qualification. The Qualification contains all the competencies, skills and values required by a learner who may wish to access a higher qualification within the environment sector.

The core component of the National Certificate: Environmental Management at NQF Level 5 contains general competencies that will help the learner acquire a broad and meaningful overview of the environment management sector before specialising in a particular field. The Elective component allows for streams of specialisations in environmental waste management, air quality management, water quality management, noise pollution and other related fields. The learner will acquire expanded knowledge, skills and insight into one of these streams.

This Qualification will add value to the learner's conceptual understanding of the field and work performance. It will also enhance the provision of service within the environmental management sector.

The Qualification will provide the broad knowledge, skills and values needed in the environmental management field and will facilitate access to, and mobility and progression within, education and training for learners who:

- Were previously disadvantaged.
- Have worked in this field for many years, but have no formal qualifications and would like to achieve this qualification through the process of Recognition of Prior Learning (RPL) and/or formal study.
- Wish to extend their range of skills and knowledge and hence their competencies in environment management.

The Qualification has building blocks that can be developed further in qualifications at a higher level. It also focuses on the skills, knowledge, values and attitudes required to progress further. The intention is:

- To promote the development of knowledge, skills and values that are required for service excellence within the field of environmental management.
- To release the potential of people.
- To provide opportunities for people to explore different activities within the environmental sector.

#### Rationale:

The National Certificate: Environmental Management at NQF Level 5 is designed to meet the needs of those learners who wish to become environmental officers working under the supervision of a senior environmental officer or an environmental manager. Currently there are no national qualifications for these learners at this level. This will be the first national qualification in the higher education band that will constitute the initial step for these learners towards becoming environmental managers.

Broadly-speaking, Environment Management constitutes a series of essential services currently being rendered in a variety of contexts, both urban and rural. On one level, technological advances and the continuous movement of people especially from the rural to urban areas in search of employment - with their concomitant impact on the environment - have increased the need for management of the environment with a view to improve the quality of life and future sustainability. At another level, nature conservation areas, the oceans and other natural phenomena (forests, rivers, lakes etc) are also impacted upon by human activity and require the services and competencies of environmental managers to ensure the sustainability of these pristine natural habitats.

The function of the environmental officer would be to assist the environmental manager who operates in a variety of contexts in the performance of those tasks and activities that would lead to the preservation and management of the environment as outlined above. It is in the interest of the country as a whole to have environmental managers to ensure that their officers are trained according to this Qualification in order to improve productivity and efficiency.

The structure of this Qualification will allow learners to acquire a set of generic competencies in Environment Management and then to specialise in one particular stream. It will also allow learners to change direction within the Environmental Management sector should they either discover that a particular specialisation is not something that satisfies their career trajectory or they wish to acquire more competencies in the field. There is therefore sufficient possibility for increased specialisation without the need to do an entire qualification. There is also the need for highly skilled Environmental Managers for which this is the first qualification.

The National Certificate: Environmental Management at NQF Level 5 is the first national qualification in this sector. In terms of a learning pathway the learner will be able to pursue the Advanced Certificate: Environmental Education, Training and Development Practice at Level 6 or the Bachelor of Environmental Education, Training and Development Practice at Level 6.

The National Certificate: Environmental Management at NQF Level 5 supports the objectives of the NQF in that it gives the learner access to a registered qualification. It will ensure that the quality of education and training in the sub-field is enhanced and of a world-class standard. The Qualification will allow learners not only to develop their knowledge and skills in the field of Environmental Management but will also enable them to benchmark their competence against international standards.

#### RECOGNIZE PREVIOUS LEARNING?

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**LEARNING ASSUMED IN PLACE**

It is assumed that learners are competent in the following:

- Mathematical literacy at NQF Level 4.
- Communication at NQF Level 4.
- Environmental or management related subject at NQF Level 4.

It would be preferable if learners acquired the following qualification prior to embarking on learning towards this qualification:

- ID 50309: FETC: Environmental Practice.

Recognition of Prior Learning:

The structure of this Unit Standard-based Qualification makes the recognition of prior learning (RPL) possible, if the learner is able to demonstrate competence in the knowledge, skills, values and attitudes implicit in this Qualification.

Learners who already work in the Environment Management sector and who believe that they possess the competencies to enable them to meet all of the outcomes listed in the Unit Standards will be able to present themselves for assessment against the Unit Standards of their choice. A range of assessment tools and techniques should be used which have been jointly decided upon by the learner and the assessor. Such procedures, and the assessment of individual cases, are subject to moderation by independent assessors. The same principles that apply to assessment of this Qualification also apply to recognition of prior learning.

Once found competent, these learners will be certified as competent and credited accordingly. Recognition of Prior Learning can also be conducted for these learners at qualification level, by means of Integrated Assessment.

RPL will allow for accelerated access to further learning and gaining of credits towards the qualification. All RPL ought to be carried out by the provider in agreement with the relevant ETQA or another ETQA that has a Memorandum of Understanding in place with the relevant ETQA.

RPL is particularly important, as there are people in the profession with a variety of qualifications of differing quality and scope. It is important that an RPL process be available to assist in making sense of existing qualifications, and helping to standardise qualifications towards a common standard.

**QUALIFICATION RULES**

A minimum of 134 credits are required to complete the Qualification which is made up of the following components:

- Fundamental: 18 credits.
- Core: 98 credits.
- Electives: 18 credits.

Total: 134 credits.

Fundamental Component:

- There are 18 credits allocated to this component at the level of the Qualification.
- All the Unit Standards designated as Fundamental are compulsory.

**Core Component:**

98 credits have been allocated to the Core for the purpose of this Qualification. These Unit Standards provide the generic knowledge and skills related to Environmental Science and Environmental Management in general, as highlighted in the Purpose Statement.

All the Unit Standards indicated as Core are compulsory.

**Elective Component:**

Candidates are required to select a minimum of 18 credits from the elective unit standards in the specialisation stream of their choice. Currently only Waste Management is available as a specialisation stream, but other streams, listed below, will be included in the future. Each of these streams constitutes a set of appropriate Unit Standards that allow the learner to obtain competencies in particular areas within the Environmental Science and Environmental Management sectors.

These Elective streams provide opportunities for the holistic development of the learner and allow for maximum flexibility and multi-skilling to enable the learners to achieve a Qualification that is relevant to the context in which they work. Learners who complete a specialisation may complete Unit Standards from other streams if they relate directly to the learner's context or focus area of practice.

The proposed streams are:

- Air Quality Management.
- Water Quality Management.
- Pollution.

Where the credits of the Unit Standards in the specialisation do not add up to a minimum of 18 credits, the learner may choose any other Unit Standard/s from the Elective component to complete a minimum of 18 Elective credits.

**Specialisation Stream 1: Waste Management:**

Learners must do ALL the Unit Standards from the list below to achieve the specialisation stream for waste management:

- ID 264460: Collect and transport waste, Level 5, 6 Credits.
- ID 264474: Demonstrate an understanding of waste generation and primary storage, Level 5, 6 Credits.
- ID 264475: Treat and process waste, Level 5, 8 Credits.
- ID 264476: Dispose of waste, Level 5, 6 Credits.

Total number of credits for this Specialisation: 26 Credits.

**General Unit Standards:**

Learners who do not wish to complete a specialisation stream may select a minimum of 18 credits from the Unit Standards listed below:

- ID: 252026: Apply a systems approach to decision making, Level 5, 6 Credits.
- ID: 15234: Apply efficient time management to the work of a department/division/section, Level 5, 4 Credits.