



# Water Monitoring and Assessment

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# Introduction

- Essential to adequately monitor and assesses water resources to ensure that developmental and environmental needs are met.
- Due to a lack of capacity some have struggled to monitor, assess and report water related issues timeously.
- Another challenge faced by the water sector is the lack of capacity to deliver qualifications that meet the needs of the sector.
- Absence of a Water Occupations Framework as a tool to guide the planning and classification of occupations within the sector poses a further major challenge

# Aim

- The overall aim of this Network is to build the capacity of the water sector professionals on practical applications of water resource monitoring and assessment (compliance and enforcement purposes) for improved decision-making and better management of water resources.
- With a focus on developing occupational qualifications for compliance monitoring and enforcement to meet the demands for critical skills for the water sector with opportunities for career paths/pathing.

# Occupational Qualification Development

- 14 April 2015: FETWater/WSLG Workshop
  - What do networks do?
  - How do networks identify occupational clusters?
- 30 April 2015: Pre-scoping meeting:
  - Revealed that one of the water sector priorities is to strengthen its compliance monitoring and enforcement capacity to take strong action against illegal water use in accordance with the enforcement protocol
  - 1) Water Quality Control Officer and
  - (2) Water Compliance and Enforcement Officer

- May - June 2015
  - Developed and submitted Business Plan
- 05 August: Scoping
  - CEP induction
  - After in-depth discussion the participants agreed to embrace the Water Quality Practitioner qualification with specialisations for (1) Water Compliance Officer and (2) Water Investigation and Enforcement Officer.
- 05 October 2015:
  - Study the Water Quality Practitioner curriculum document and indicate which modules and components belong either to the Water Compliance Officer or the Water Investigation and Enforcement Officer;
  - Indicate which modules are missing and still need to be developed for the Water Compliance Officer and Water Investigation and Enforcement Officer respectively; and
  - Develop purpose statements (what is expected for the job) for the Water Compliance Officer or the Water Investigation and Enforcement Officer respectively.

- 19 -20 October 2015: CEP Group
  - Review work done to date & consolidate
  - Occupation profile sign-off
  - Commence work on knowledge, practical, and workplace module specifications
- Changed Title: Occupational Certificate: Water Regulation Practitioner
  - Purpose: Water Regulation Practitioners: Protect water resources and related infrastructure through the development and effective implementation of appropriate regulatory requirements. (Authorise, enforce, compliance monitoring, regulation and protection)

- The purpose of this qualification is to prepare a learner to operate as a Water Regulation Practitioner.
- A qualified learner will be able to:
  - Generate valid and updated water quality reports for a designated area;
  - Conduct inspections and audits to ensure compliance with regulatory requirements;
  - Evaluate applications for the issuing of water use authorisations/permits; and
  - Build and maintain productive relationships within the water quality management and utilisation community.

# Modules

- **Knowledge**

- Water Resource Science
- Integrated catchment Risk Management
- Water Resource Engineering
- Water Regulatory Framework

- **Practical**

- Ensure the availability of valid sample results for a designated area.
- Generate and manage water quality reports
- Conduct on-site inspections
- Conduct incident inspections
- Implement enforcement actions
- Advise clients on the need for water authorisations and permits
- Provide comments for land use or infrastructure purposes
- Participate in relevant stakeholder forums
- Provide information and stakeholder education regarding water management.

- **Work Experience Modules:**
  - Exposure to the site specific water quality monitoring and assessment processes.
  - Exposure to compliance auditing processes.
  - Exposure to the incident management processes.
  - Exposure to the authorisation processes.
  - Exposure to the stakeholder engagement processes.
- The qualification was submitted to the QCTO and will be presented at the first QCTO Occupational Qualifications Committee for 2016 which will be on the 14 April 2016.

# Way Forward

- Feedback from QCTO
- Develop an Assessment Quality System with AQP
  - Assessment Strategy and Model for External Integrated Summative Assessment
  - Assessment Centres
  - Assessment Requirements: How conducted
  - Assessment Grid: Type of assessment
- Materials development
  - Writing of Materials against the curriculum
- Formalisation of training sites
  - CMAs
- Pilot Training
  - Test and Modify curriculum and materials
- Long term
  - Where are we going with qualifications
- Learner accreditation
- Mainstreaming: For Sustainability and Ownership

# Thank You

