



## WATER RESEARCH COMMISSION

### FETWATER BUSINESS PLAN 2015/16 – 2016/17

#### PROPOSAL DETAILS (Mandatory)

|                        |   |
|------------------------|---|
| <b>KSA</b>             | <b>10</b>   |
| <b>Thematic Area</b>   | Water Monitoring and Assessment                       |
| <b>Proposer</b>        | Cape Peninsula University of Technology               |
| <b>Proposal Title</b>  | Capacity Building for Water Monitoring and Assessment |
| <b>Proposal Number</b> | (Will be generated by the system)                     |
| <b>Start Date</b>      | 01 April 2015   |
| <b>End Date</b>        | 31 March 2017   |



**water & sanitation**

Department:  
Water and Sanitation  
REPUBLIC OF SOUTH AFRICA



## ORGANISATIONS (Mandatory)

### Lead organization

|   |   |
|---|---|
| <b>Organization Name</b>                | Cape Peninsula University of Technology       |
| <b>SMME</b>                             | NO  |
| <b>HDI</b>                              | YES   |
| <b>Department/Component</b>             | Centre for Water and Sanitation Research      |
| <b>Contributions</b>                    | Coordination, Implementation and Reporting    |
| <b>Postal Address</b>                   | P O Box 1906                                  |
| <b>City</b>                             | Bellville, Cape Town                          |
| <b>Postal Code</b>                      | 7535  |
| <b>Physical Address</b>                 | Bellville Campus<br>Symphony Way<br>Bellville |
| <b>City</b>                             | Cape Town                                     |
| <b>Postal Code</b>                      | 7535  |
| <b>BEE Certificate</b>                  |   |
| <b>Tax Clearance Certificate</b>        |   |
| <b>Company Registration Certificate</b> |   |
| <b>Bank Account Confirmation Letter</b> |   |

### Contract Signatory

|                          |                    |
|--------------------------|--------------------|
| <b>Title</b>             | Dr                 |
| <b>Initials</b>          | NS                 |
| <b>First Name</b>        | Nkongwane          |
| <b>Last Name</b>         | Nhlapo             |
| <b>Gender</b>            | Male               |
| <b>Race</b>              | Black              |
| <b>Nationality</b>       | South African      |
| <b>Citizenship</b>       | South African      |
| <b>Country of Origin</b> | South African      |
| <b>Email Address</b>     | nhlapoc@cput.ac.za |

|                         |   |
|-------------------------|---|
| <b>Telephone Number</b> | (021) 9596203                                 |
| <b>Physical Address</b> | Bellville Campus<br>Symphony Way<br>Bellville |
| <b>City</b>             | Cape Town                                     |
| <b>Postal Code</b>      | 7535  |

### Collaborating Organizations

|                          |  |
|--------------------------|--|
| <b>Organization Name</b> | Department: Water and Sanitation (National)  |
| <b>Departments</b>       | Compliance Enforcement<br>Water Resource Classification<br>Compliance Monitoring<br>Reserve Determination  |
| <b>Contributions</b>     | Provide expert and technical assistance, insight and guidance.<br>Assist with the curriculum development and implementation.   |
| <b>Contact Details</b>   | Compliance Enforcement<br>Mr Nigel Adams<br>Chief Director: Enforcement (acting)<br><br>Water Resource Classification<br>Ms Shane Naidoo<br>NaidooShane@dwa.gov.za<br><br>Compliance Monitoring<br>Muir Anet<br>MuirA@dwa.gov.za<br><br>Reserve Determination<br>Atwaru Yakeen<br>atwaruy@dwa.gov.za |
| <b>Address</b>           | Zwamadaka Building 185 Francis Baard Street  |
| <b>City</b>              | Pretoria   |
| <b>Postal Code</b>       | 0001   |

|                              |   |
|------------------------------|---|
| <b>Organization Name</b>     | Department: Water and Sanitation (Western Cape)   |
| <b>Departments/Component</b> | Berg-Olifants Proto-CMA<br>Compliance Monitoring and Enforcement<br>Water Use Authorisation                               |
| <b>Contributions</b>         | Provide expert and technical assistance, insight and guidance. Assist with the curriculum development and implementation. |
| <b>Contact Details</b>       | Berg-Olifants Proto-CMA<br>Melissa Lintnaar-Strauss<br>lintnaar-straussm@dwa.gov.za                                       |

|                    |  |
|--------------------|--|
|                    | Compliance Monitoring and Enforcement<br>Samantha Saayman<br>SaaymanS@dwa.gov.za<br><br>Water Use Authorisation<br>Nhetheni Nthungeni<br>NthungeniN@dwa.gov.za |
| <b>Address</b>     | Spectrum Building<br>52 Voortrekker Street<br>Bellville  |
| <b>City</b>        | Cape Town  |
| <b>Postal Code</b> | 7530   |

|                             |   |
|-----------------------------|---|
| <b>Organization Name</b>    | Water Institute of Southern Africa  |
| <b>Department/Component</b> | Training and Accreditation  |
| <b>Contributions</b>        | Provide expert and technical assistance, insight and guidance. Assist with the curriculum development and implementation. |
| <b>Contact Details</b>      | Anita Pillay<br>training@wisa.org.za  |
| <b>Address</b>              | 1st Floor,<br>5 Constantia Park 546<br>16th Road, Midrand   |
| <b>City</b>                 | Midrand   |
| <b>Postal code</b>          | 1685  |

|                             |   |
|-----------------------------|---|
| <b>Organization Name</b>    | Energy and Water SETA   |
| <b>Department/Component</b> | Quality Assurance   |
| <b>Contributions</b>        | Provide expert and technical assistance, insight and guidance. Assist with the curriculum development and implementation. |
| <b>Contact Details</b>      | Shannon Davids<br>shannond@eseta.org.za   |
| <b>Address</b>              | 32 Princess of Wales Terrace<br>Parktown,   |
| <b>City</b>                 | Johannesburg  |
| <b>Postal code</b>          | 2193  |

|                             |   |
|-----------------------------|---|
| <b>Organization Name</b>    | ESKOM   |
| <b>Department/Component</b> | Projects  |
| <b>Contributions</b>        | Provide expert and technical assistance, insight and guidance. Assist with the curriculum development and implementation. |

|                        |   |
|------------------------|---|
| <b>Contact Details</b> | Neil Daniels<br>Neil.daniels@eskom.co.za    |
| <b>Address</b>         | Voortrekker Road<br>Bellville, Western Cape |
| <b>City</b>            | Cape Town                                   |
| <b>Postal code</b>     | 7535  |

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|-----------------------------|---|
| <b>Organization Name</b>    | WWF   |
| <b>Department/Component</b> | Sustainability Initiatives  |
| <b>Contributions</b>        | Provide expert and technical assistance, insight and guidance. Assist with the curriculum development and implementation. |
| <b>Contact Details</b>      | Vongani Rikhotso<br>Vrikhotso@wwf.org.za  |
| <b>Address</b>              | 1st Floor, Bridge House,<br>Boundary Terraces, Mariendahl Lane,   |
| <b>City</b>                 | Newlands, Cape Town   |
| <b>Postal code</b>          | 7735  |

|                             |   |
|-----------------------------|---|
| <b>Organization Name</b>    | Breede-Gouritz Catchment Management Agency  |
| <b>Department/Component</b> | Water Use   |
| <b>Contributions</b>        | Provide expert and technical assistance, insight and guidance. Assist with the curriculum development and implementation. |
| <b>Contact Details</b>      | Carlo Abrahams<br>cabrahams@breedegouritzcma.co.za  |
| <b>Address</b>              | 51 Barring Street   |
| <b>City</b>                 | Worcester   |
| <b>Postal code</b>          | 6850  |

|                             |   |
|-----------------------------|---|
| <b>Organization Name</b>    | Department of Environmental Affairs and Development Planning  |
| <b>Department/Component</b> | Pollution Management  |
| <b>Contributions</b>        | Provide expert and technical assistance, insight and guidance. Assist with the curriculum development and implementation. |
| <b>Contact Details</b>      | Amina Sulaiman<br>Amina.sulaiman@westerncape.gov.za   |
| <b>Address</b>              | 1 Dorp Street   |
| <b>City</b>                 | Cape Town   |
| <b>Postal code</b>          | 8000  |

|                             |   |
|-----------------------------|---|
| <b>Organization Name</b>    | Groenland Water Users Association   |
| <b>Department/Component</b> | Water Use   |
| <b>Contributions</b>        | Provide expert and technical assistance, insight and guidance. Assist with the curriculum development and implementation. |

|                        |                |
|------------------------|----------------|
| <b>Contact Details</b> | Edward Molteno |
| <b>Address</b>         | P.O.Box 313    |
| <b>City</b>            | Grabouw        |
| <b>Postal code</b>     | 7160           |

|                             |   |
|-----------------------------|---|
| <b>Organization Name</b>    | City of Cape Town   |
| <b>Department/Component</b> | Water Demand Management and Strategy  |
| <b>Contributions</b>        | Provide expert and technical assistance, insight and guidance. Assist with the curriculum development and implementation. |
| <b>Contact Details</b>      | Shahied Solomon   |
| <b>Address</b>              | 261 Voortrekker Road  |
| <b>City</b>                 | Goodwood, Cape Town   |
| <b>Postal code</b>          |   |

### PROJECT TEAM (Mandatory)

|                                     |   |
|-------------------------------------|---|
| <b>Organisation</b>                 | Cape Peninsula University of Technology |
| <b>Role</b>                         | Network Coordinator                     |
| <b>Title</b>                        | Dr                                      |
| <b>Initials</b>                     | B                                       |
| <b>First Name</b>                   | Brian                                   |
| <b>Surname</b>                      | Delcarme                                |
| <b>ID/Passport Number</b>           | 6003275205084                           |
| <b>Gender</b>                       | Male                                    |
| <b>Race</b>                         | Black                                   |
| <b>Nationality</b>                  | South African                           |
| <b>Citizenship</b>                  | South African                           |
| <b>Country of Origin</b>            | South African                           |
| <b>Relevant Years of Experience</b> | 24                                      |
| <b>Qualifications</b>               | PhD                                     |
| <b>Email Address</b>                | Delcarme@hotmai.com                     |

|                     |   |
|---------------------|---|
| <b>Organisation</b> | Cape Peninsula University of Technology |
| <b>Role</b>         | Liaison, Research, Network support      |
| <b>Title</b>        | Mr                                      |
| <b>Initials</b>     | M                                       |
| <b>First Name</b>   | Manual                                  |
| <b>Surname</b>      | Jackson                                 |

|                                     |                     |
|-------------------------------------|---------------------|
| <b>ID/Passport Number</b>           | 6512125141083       |
| <b>Gender</b>                       | Male                |
| <b>Race</b>                         | Black               |
| <b>Nationality</b>                  | South African       |
| <b>Citizenship</b>                  | South African       |
| <b>Country of Origin</b>            | South Africa        |
| <b>Relevant Years of Experience</b> | 20                  |
| <b>Qualifications</b>               | PMP; APMP, MBA      |
| <b>Email Address</b>                | jacksonm@cput.ac.za |

|                                     |                          |
|-------------------------------------|--------------------------|
| <b>Organisation</b>                 | North-West University    |
| <b>Role</b>                         | Reviewer/Advisor         |
| <b>Title</b>                        | Professor                |
| <b>Initials</b>                     | V                        |
| <b>First Name</b>                   | Victor                   |
| <b>Surname</b>                      | Wepener                  |
| <b>ID/Passport Number</b>           |                          |
| <b>Gender</b>                       | Male                     |
| <b>Race</b>                         | White                    |
| <b>Nationality</b>                  | South African            |
| <b>Citizenship</b>                  | South African            |
| <b>Country of Origin</b>            | South African            |
| <b>Relevant Years of Experience</b> | +25                      |
| <b>Qualifications</b>               | PhD                      |
| <b>Email Address</b>                | Victor.Wepener@nwu.ac.za |

|                           |   |
|---------------------------|---|
| <b>Organisation</b>       | Cape Peninsula University of Technology |
| <b>Role</b>               | Administration, Logistics               |
| <b>Title</b>              | Mr                                      |
| <b>Initials</b>           | J                                       |
| <b>First Name</b>         | Joao                                    |
| <b>Surname</b>            | Alberts                                 |
| <b>ID/Passport Number</b> | 8110145244082                           |
| <b>Gender</b>             | Male                                    |
| <b>Race</b>               | White                                   |
| <b>Nationality</b>        | South African                           |

|                                     |   |
|-------------------------------------|---|
| <b>Citizenship</b>                  | South African                                   |
| <b>Country of Origin</b>            | South Africa                                    |
| <b>Relevant Years of Experience</b> | 10  |
| <b>Qualifications</b>               | ND OMT; B.Tech Office Management and Technology |
| <b>Email Address</b>                | Albertsj@cput.ac.za                             |

## RATIONALE (Mandatory)

### Motivation

Monitoring is usually understood as a process of repetitive measurements, for defined purposes, of one or more elements of the environment according to pre-arranged schedules in space and time, using comparable methodologies for environmental sensing and data collection. Measurements are at the root of assessments of the current state of water quantity and quality and their variability in space and time (United Nations, 2006).

In order to ensure that water resources meets the developmental and environmental needs, it is essential to adequately monitor and assesses this resource, especially as they will be coming under increasing stress from persistent and emerging challenges. South Africa, after developing comprehensive water legislation and policies to address water issues, now need to shift its attention to implementation, monitoring and management (Pollard and DuToit, 2005).

Sound scientific monitoring and effective and transparent communication of monitoring results can also be a powerful catalyst for participatory water resource management. Monitoring is necessary to collect sufficient and accurate data to inform decision making, and reduce and manage risks. Therefore the ultimate goal is to provide information needed for planning, decision making and operational water management and related infrastructure at local, national and regional levels. There is thus a need to expand the current coverage of water data and information because it is inadequate in some areas; for example, insufficient groundwater monitoring points with an inadequate spatial distribution.

Current reporting about the availability and use of water is also not sufficiently covered with regard to water, accounting on how water supply is balancing demand to meet transformational imperatives. Data sharing between stakeholders in the water sector is insufficient, resulting in information needs not being satisfied as well as they could be even under present circumstances. There is an urgent need for a well-designed, coordinated and managed programme for collecting, assessing and disseminating data and information on water recorded by all entities in the water sector. However, for various reasons, including lack of capacity, some have struggled to monitor and report water information timeously (DWA, 2013).

Studies reveal a shortage of human resource with skills and experience in the scientific, technical, managerial and administrative functions. The Energy and Water Sector Education and Training Authority (EWSETA) Sector Skills plan 2011 - 2016 states that the water sector experience severe shortage of critical skills which are in demand at technician, professional and managerial occupational classifications.

Capacity building and training in these areas become vital in addressing the shortages and to ensure that water sector institutions have the appropriate knowledge, skills and experiential exposure to manage our water resources. Lack of capacity to oversee the implementation of water related strategies and other aspects could lead to water shortages that result from poor

management rather than a true deficiency of supply. Based on the current infrastructural capacity as well as the availability of funding and actual water resources, the ability of local government to meet targets set by government in relation to the continuous growth in backlogs faces serious challenges (DWAF, 2009).

The ongoing scarce skills shortage within the water sector poses a threat to the achievement of the water and sanitation delivery and compliance targets (service delivery) as well as implementation of sustainable water resources management. The water sector needs to face this challenge as a matter of urgency or else the shortage will continue to grow at an accelerated rate (Meyer, 2010). It is widely recognised that capacity building and sustainable knowledge transfer are critical concerns for several sectors in South Africa, and the water sector is no different. The loss of intellectual assets is a major threat to effective water management (Jacobs, 2012). Fulfilling the present and future needs of the water and wastewater industry requires the continuous development of a workforce which is both adequate in size, capable in skills and strong in leadership (WRC, 2009). The skills shortage and low levels of water literacy could be attributed to a fragmented approach to education and training. There is thus a need to narrow the gap between sector needs and graduates entering the workplace to ensure coordinated responses to meet the sector skills development challenge (Ramunenyiwa, 2012).

Another challenge faced by the water sector is the lack of capacity to deliver qualifications that meet the needs of the sector. There is a gap between higher education training, qualification and professional registration. Education, training and skills development are provided within a complex National Qualifications Framework and regulatory system and the practical alignment of the three sub-frameworks and the Quality Councils remains a challenge. 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 (DWA, 2013). Despite the overarching positioning of the National Qualification Framework (NQF) as a design imperative, education, training, human resource and skills development had not aligned into an integrated, seamless process and skills challenges had primarily been converted into human resource management concerns, resulting in the neglect of a pipeline approach to education and training ((Ramunenyiwa, 2012).

Compliance monitoring and enforcement is one of the priorities identified by the NWRS2 and legal, financial and forensic capacity will be developed to ensure effective prosecution for the ultimate protection of South African water resources against any illegal action by institutions or persons in contravention of the required quality and quantity standards. Improved compliance monitoring and enforcement is required to support water allocation and water allocation reform to ensure that water is used according to authorisation conditions, and by legally authorised water users. One of the DWS priorities is to strengthen its compliance monitoring and enforcement capacity to take strong action against illegal water use in accordance with the enforcement protocol

This project will therefore 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. This was confirmed at a pre-scoping workshop held on 30 April 2015 with the network coordinator and representatives from: WISA, Chief Directorate: Compliance Enforcement, DWS: Western Cape Regional Office and City of Cape Town. After presentation and deliberation, it was decided that the **two critical occupations** for the Water Monitoring and Assessment Network will be (1) **Water Quality Control Officer** and (2) **Water Compliance Enforcement Officer**. It is envisaged that these occupations will be at the "Professional Level" and registered with the Quality Council for Trades and Occupations relating to **OFO code 213306 Water Quality Analyst (Water Quality Control Officer)** and **213306 Water Quality Analyst (Water Compliance Enforcement Officer)** respectively.

In conclusion these professional occupations is in line with current skills demand as the EWSETA Sector Skills plan 2011 - 2016 stating that an online survey revealed that skills are mostly in

demand at the 'Technicians and Trade Workers' occupational classification and that the second highest demand is found at the 'Professional' occupational classification.

## **Outputs/Outcomes and Expected Impact**

The outcomes of this project will build much needed capacity and enhance the skills of the water sector to innovatively respond to water resource monitoring and assessment issues. It will also give effect to the recommendation (stated in the EWSETA Sector Skills plan 2011 - 2016) of establishing a sector-supported institutional model for the effective coordination of institutional capacity building, education, training and skills development.

It is intended to use the outcomes of this project to ensure that the Department of Water and Sanitation and Municipalities have the required capacity to deliver upon their mandates. The Water for Growth & Development Framework, version 7, highlights the facts that Department lacks the capacity to oversee the implementation of strategies and other aspects of its mandate; and that although all municipalities are legally required to monitor their drinking water quality, due to lack of capacity, not all municipalities do so on a continuous basis. The result is poor service quality leading to customer dissatisfaction and non-payment of services.

The outcomes will also assist Chief Directorate: Compliance Enforcement to reach its targets set against its key performance areas.

This project will also provide the impetus needed to reach the National Government Outcomes 5: A skilled and capable workforce to support an inclusive growth path; and 10: Environmental assets and natural resources that is well protected and continually enhanced.

Furthermore, this project will address the challenges and targets (as stated in National Water Resource Strategy 2) of:

- Improvement of technical and management skills to implement developmental water resource management.
- Improvement in the integration of monitoring and information management.
- Improve the system of skills planning and shaping production of skills.
- Develop a set of strong qualifications and support for non-formal programmes.
- A formalised graduate recruiting scheme for the public service, skills strategies for managers, technical, professional and local government staff

## **AIMS AND OBJECTIVES (Mandatory)**

### **AIM**

The overall aim of the project is to build the capacity of the water sector professionals in the Department of Water and Sanitation and Municipalities on practical applications of water resource monitoring and assessment for improved decision-making and better management of water resources.

| No | Objectives   |
|----|--|
| 1  | Strengthen the strategic orientation and coordination capacity of training institutions to ensure a demand-driven skills planning mechanism that caters for short-, medium- and long-term sector needs   |
| 2  | Identify, coordinate and build synergies between existing and future capacity building efforts   |
| 3  | Facilitate and support the development and strengthening of capacities of individuals, institutions and organisations for the effective implementation of the provisions of the Water Act and associated policies and programmes related water resource monitoring and assessment. |
| 4  | Strengthen the existing mechanisms and processes for the DWS to provide strategic sector leadership in capacity building and training  |

### ACTIVITIES (Mandatory)

- Assess the current water resource monitoring and assessment situation and determine which capacity development gaps still exist
  - Establish a system/network for communication with expert practitioners
- Develop occupational curriculum with community of expert practitioners (CEP)
  - Specify the occupational purpose
  - Create an occupational profile based on occupational tasks
  - Construct learning components in the form of specifications for: (1) Subjects constituted from theory and knowledge; (2) Practical skills modules that provide the essential skills for the work with its associated applied knowledge; and (3) Work experience modules that would develop occupational competence with its associated workplace knowledge
  - Develop training materials (to build capacity) based on the learning components
- Develop and implement a business plan for the assessment quality partner (AQP) which focuses on structuring the occupational assessment specifications for external assessment strategy
- Pilot training based on the developed curriculum and make necessary modification for final curriculum and materials development
- Register the occupation
- Roll out capacity development (training) programmes
- Monitor and evaluate
- Develop a strategy for the sustainability of the capacity development programme

### DELIVERABLES (Mandatory)

|   | Title             | Description   | Target Date | Amount (R) |
|---|-------------------|---|-------------|------------|
| 0 | Advance           |   | 01/06/2015  | 0          |
| 1 | Progress Report 1 | Scoping report: Report on process and inputs received on the network occupational | 30/08/2015  | 155 000    |

|   |                   |  |            |           |
|---|-------------------|--|------------|-----------|
|   |                   | priorities and profiles  |            |           |
| 2 | Progress Report 2 | Occupational curriculum and external assessment specifications document for registration     | 30/11/2015 | 165 000   |
| 3 | Progress Report 3 | Delivery system design, Training Materials development and site selection for pilot training | 30/08/2016 | 565 000   |
| 4 | Final Report      | Evaluation report for pilot training and recommendations for marketing and sustainability    | 15/12/2016 | 310 000   |
|   |                   |  |            | 1 195 000 |

## PRODUCTS (Mandatory)

List the specific products to be produced during the project

| Title/Name   | Target Group  | Application  |
|--|---|--|
| Curriculum and capacity building (training) programme for water resource monitoring and assessment | Department of Water and Sanitation<br>Municipalities<br>Training institutions | Source of information for informed decision making; to inform practice; assist relevant authorities with their regulatory functions and to implement targeted interventions  |
| Registered Occupations   | Water sector as a whole   | Professionalisation of the water sector and the development of occupational pathways   |
| Vibrant network  | Water sector as a whole   | Bridging gap between higher education training, qualification and professional registration.<br><br>Practical alignment of the three sub-frameworks and the Quality Councils |

## BUDGET (Mandatory)

### Human Resource Costs

| Project Team Member | Financial | Remuneratio | Days/Year | Amount (R ) |
|---------------------|-----------|-------------|-----------|-------------|
|---------------------|-----------|-------------|-----------|-------------|

|   | <b>Year</b> | <b>n Rate (R/day)</b> |    |         |
|---|-------------|-----------------------|----|---------|
| Brian Delcarme                                | 2015/16     | 3000                  | 60 | 140 000 |
| Joao Alberts                                  | 2015/16     | 500                   | 60 | 60 000  |
| Manual Jackson                                | 2015/16     | 350                   | 20 | 70 000  |
| Brian Delcarme                                | 2016/17     | 3000                  | 63 | 189 000 |
| Joao Alberts                                  | 2016/17     | 500                   | 60 | 60 000  |
| Manual Jackson                                | 2016/17     | 350                   | 20 | 70 000  |
| Materials Developers (TBC)                    | 2016/17     |                       |    | 360 000 |
| Training provision: Course Facilitators (TBC) | 2016/17     |                       |    | 120 000 |

### **Travelling Expenses (International Conferences, Symposia, Seminars, Workshops & Meetings)**

| <b>Item</b>   | <b>Motivation</b> | <b>Financial Year</b> | <b>Amount (R)</b> |
|---|-------------------|-----------------------|-------------------|
| Attending workshops, seminars, local conferences and meetings |                   | 2015/16               | 50 000            |
| Attending workshops, seminars local conferences and meetings  |                   | 2016/17               | 20 000            |

### **Dissemination/Uptake Activity expenses**

| <b>Expense Item</b>                | <b>Financial Year</b> | <b>Amount (R)</b> |
|------------------------------------|-----------------------|-------------------|
| Marketing and promotional material | 2015/16               | 17 000            |
| Marketing and promotional material | 2016/17               | 39 000            |

### **Summary**

| <b>Fin. Year</b> | <b>HR</b> | <b>Travelling</b> | <b>Dissemination</b> | <b>Total</b> | <b>Deliverables</b> |
|------------------|-----------|-------------------|----------------------|--------------|---------------------|
| 2015/16          | 270 000   | 50 000            | 17 000               | 337 000      | 1 & 2               |
| 2016/17          | 799 000   | 20 000            | 39 000               | 858 000      | 3 & 4               |

## **TRAINING DISSEMINATION AND UPTAKE (Mandatory)**

What actions will be taken to ensure dissemination/transfer and uptake?  
- Raise awareness through vigorous marketing. Create newsletters, flyers, and press releases.  
- Utilise conferences and professional bodies to promote the training.

- Tailor and adapt the training for different users (urban vs rural) to improve usability and applicability
- Engage and obtain input/feedback from key stakeholders in the water sector

What are your project's dissemination and uptake objectives?

- Develop guidelines for packaging and marketing of training outputs for uptake pathways.
- Critical review of literature on dissemination methods and uptake pathways.

Who are the target audiences / stakeholders to benefit from the project?

- Department Water and Sanitation
- Department of Environment
- Catchment Management Agencies
- Municipalities
- Training institutions

What other partners will you engage with to achieve your dissemination and uptake objectives?

- South African Local Government Association
- Energy and Water Sector Education and Training Authority
- Local Government Sector Education and Training Authority
- Quality Council for Trades and Occupations
- Water Institute of Southern Africa

## ADDITIONAL INFORMATION (Optional)

### Literature References

DWA (2013) National Water Resource Management Strategy 2 (NWRS 2): Managing water for an equitable and sustainable future. 2nd Edition June 2013, Department of Water Affairs, Pretoria.

DWAF [Department of Water Affairs and Forestry] (2009) Water for Growth & Development Framework (Version 7). DWAF, Pretoria.

Jacobs, I. (2012) Challenges for young water professionals. *Water & Sanitation Africa*, 7 (5):6-7

Meyer, V. (2010) Skills Crisis and Capacity Building in the Water Sector: The DWA Learning Academy Model. Water Sector and Skills Development Conference, 18 and 19 February 2010, Port Elizabeth, South Africa

Pollard, S. and DuToit, D. (2005) Achieving Integrated Water Resource Management: The mismatch in boundaries between water resources management and water supply. *International*

workshop on African Water Laws: Plural Legislative Frameworks for Rural Water Management in Africa', 26-28 January 2005, Johannesburg, South Africa

Ramunenyiwa, (2012) Water sector capacity building chapter, National Water Resource Strategy 2012: Department of Water Affairs briefing, 19 Sep 2012, Parliamentary Monitoring Group Committee: Water and Sanitation

United Nations (2006) Strategies for Monitoring and Assessment of Trans boundary Rivers, Lakes and Ground waters. United Nations, New York and Geneva

WRC (2009) WISA's first young president elected. *The Water Wheel*, Jul/Aug 2009

### **Brief CV details for the Network Coordinator**

Dr. Brian Delcarme has extensive qualifications, experience (+20 years) and skills in environmental issues, sustainable development, teaching, project management and research. His career started off as a clerk in 1978 and progressed to becoming a WK Kellogg Fellow, Project Director at UWC, lecturer and researcher at the Cape Peninsula University of Technology .His formal tertiary qualifications are:

- National Diploma and Higher Diploma in Public Health
- Bachelor of Administration
- Master in Intercultural and International Management (Sustainable Development and Training)
- Master of Environmental Management
- Ph.D. "Institutionalising Waste Management Information Systems"

Dr. Delcarme is also registered with the Local Government and Health and Welfare SETAs as an assessor and moderator

### **List of Abbreviations**

|          |  |
|----------|--|
| CV       | Curriculum Vitae   |
| FETWater | Framework Programme for Research, Education and Training in the Water Sector |
| HR       | Human Resources  |
| NWRS2    | National Water Resources Strategy Version 2                                  |
| PDIs     | Previously Disadvantaged Institutions/Individuals                            |