

## Curriculum Vitae

Kevin Winter MA (London) PhD (University of Cape Town)



### Personal Details

Work Address:

Environmental and Geographical Science Department  
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### Employment History

2016 to present: Senior Lecturer in Environmental & Geographical Science Department (ENGEO), University of Cape Town.

2003 to 2015 Lecturer, Environmental & Geographical Science Department (ENGEO), University of Cape Town

1998 – 2003 Assistant Lecturer, ENGEO Department, University of Cape Town

1992 – 1997 Chief Technical Officer, ENGEO Department, University of Cape Town

1983 – 1992 – Senior Secondary Educator, Camps Bay High School, Cape Town

### Impact factor and rating

Researchgate.net 13.8

h-index: 5

NRF C2

## Teaching

2018 teaching in following courses:

EGS2013F Physical processes

EGS1005F Introduction to Environmental Assessment for Engineers

EGS3021F Sustainability and the Environment: GIS component theory & practice

EGS4046F Water Resource Management: 4<sup>th</sup> & 5<sup>th</sup> Year course

## Publications over last 7 years

### (a) Academic Publications (peer reviewed)

#### 2019

Fell, J., Pead, J. and Winter, K. 2019 Low-cost Flow Sensors: making smart water monitoring technology affordable, IEEE Consumer Electronics,

10.1109/MCE.2018.2867984

<https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=8570900&tag=1>

#### 2017

Charlesworth, S. M., **Winter, K.**, Adam-Bradford, A., Mezue, M., McTough, M., Warwick, F. and Blackett, M. (2017) Sustainable drainage in Challenging Environments, *New Water Policy and Practice*, Vol 4 No 1 32-41

Fisher-Jeffes, L., Carden, K., Armitage, N.P, and **Winter, K.** (2017) Stormwater harvesting: improving water security in South Africa's urban areas, *South African Journal of Science* Vol 113 No. 1/2

#### 2016

Ward, E., and **Winter, K.** (2016) Missing the link: urban stormwater quality and resident behaviour, *WaterSA* Vol42 No. 4: 571-576

Baleta, H., and **Winter, K.** (2016) Towards a shared understanding of water security risks in the public and private sectors, *International Journal of Water Resources Development*, DOI: 10.1080/07900627.2016.1159948

#### 2015

Rose, J., and **Winter, K.** (2015) A gap analysis of the South African innovation system for water *Water SA* Vol. 41 No. 2

Mzini, L., and **Winter, K.** (2015) Effects of irrigation water quality on vegetables Part 1: Yield and aesthetic appeal, *South African Journal of Plant and Soil*, 32(1): 27–31

Mzini, L., and **Winter, K.** (2015) Effects of irrigation water quality on vegetables Part 2: Chemical and nutritional content, *South African Journal of Plant and Soil*, 32(1): 33–37

Mzini, L., and **Winter, K.** (2015) Analysis of grey-water used for irrigating vegetables and possible effects on soils in the vicinity of Umtata Dam, Eastern Cape, *Water SA* Vol. 41 No. 1: 115–120

#### 2014

Siebrits RM; **Winter K**; Barnes J; Dent MC; Ekama G; Ginster M; Harrison J; Jackson B; Jacobs I; Jordaan A; Kasan HC; Kloppers W; Le Roux R; Maree J; Momba MNB; Munnik AV; O'Keeffe J; Schulze R; Silberbauer M; Still D; Van Zyl JE (2014) Priority water research questions for South Africa developed through participatory processes, *Water SA Vol. 40 No. 2: 115–120*

### 2013

Conradie, B., Piesse, J., Thirtle, C., Vink, N. and **Winter, K.** (2013) Explaining declining agricultural total factor productivity in the Karoo districts of the Eastern Cape 1952 to 2002, *Agrekon Special Issue 52 Supplement 1 2013* ISSN Online 2078-0400 Agricultural Economics Association of South Africa pp 1–23.

### 2012

Milandri SG; **Winter KJ**; Chimphango SBM; Armitage NP; Mbui DN; Jackson GE; Liebau V (2012) The performance of plant species in removing nutrients from stormwater in biofiltration systems in Cape Town, *SA Water Vol 38 No. 5.*

### 2010

Matthews M, Bernard S, & **Winter K** (2010) Remote Sensing of Cyanobacteria-dominant Algal Blooms and Water Quality Parameters in Zeekoevlei, a small hypotrophic lake, using MERIS, *Remote Sensing of Environment*, 114:2070-2087.

## (b) Scientific Reports

### 2018

Carden, K., Armitage, N., Fisher-Jeffes, L., **Winter, K.**, Mauck, B., Sanya, T., Bhikha, P., Mallett, G., Kanyerere, T. and Gxokwe, S. (2018) Challenges and opportunities for implementing Water Sensitive Design in South Africa, WRC Report No. 2412/1/18 ISBN 978-0- 6392-0015-6

Carden, K., Fisher-Jeffes, L., Young, C., Barnes, J. and **Winter, K.** (2018) Guidelines for Greywater Use and Management in South Africa, Water Research Commission Research Report No. TT 746/17

### 2014

Armitage N; Fisher-Jeffes L; Carden K; **Winter K**; Naidoo V; Spiegel A; Mauck B; Coulson D. (2014) *Water Sensitive Urban Design (WSUD) for South Africa: Framework and guidelines*, Water Research Commission, Research Report No. TT 588/13

### 2013

Siebrits R. and **Winter K.** (2013) *Identifying and prioritising water research questions for South Africa*, Water Research Commission, Research Report No.2170/1/13

Armitage N; Vice M; Fisher-Jeffes L; **Winter K**; Spiegel A; Dunstan J. (2013) *Alternative technology for stormwater management sustainable drainage*

*systems – Report and South African case studies*, Water Research Commission, Technical Brief.

Armitage N; Vice M; Fisher-Jeffes L; **Winter K**; Spiegel A. (2013) *The South African Guidelines for Sustainable Drainage Systems*, Water Research Commission, Research Report No.TT 558/12

Carden K, Armitage N, Sichone O, Rivett U and **Winter K** (2006) *Understanding the use and disposal of Greywater in the non-sewered areas of South Africa*, Water Research Commission Project K5/1524.

**Winter, K.**, Spiegel, A., Armitage, N. & Carden, K. (2009) *Sustainable options for community-level management of greywater in settlements without on-site waterborne sanitation*, Water Research Commission, Research Report K5/1654.

#### (c) Chapters in Books

Carden, K., Bennett, A. & **Winter, K.** (2018). Social learning and communities of practice – driving water sensitive design in South Africa? In Nolasco, Carissimi, Urquieta-Gonzalez (Eds.), *Water Perspectives in emerging countries: Linking water security to Sustainable Development Goals*. *Cuvillier Verlag*, Göttingen, Germany. ISBN 978-3-7369-9901-5

**Winter, K. J.** (2016) Interim Measures Towards Sustainable Drainage in the Informal Settlements of South Africa in Charlesworth, S.M. and Booth, C.A (ed.) *ustainable Surface Water Management: A Handbook for SuDS*, John Wiley & Sons, ISBN: 9781118897706

**Winter, K.J.** (2010) Water and Sanitation in the City of Cape Town: Sustainability Uncertain. In Mark Swilling (eds), *Sustaining Cape Town: Imagining a livable city*: 101-114. Stellenbosch: SUN MeDIA Stellenbosch.

**Winter, K.** (2009) Why Involve the Public? Case studies of public involvement in environmental initiatives in South Africa, in Wilson, G., Furniss, P. and Kimbowa, R (eds.) *Environment, Development and Sustainability: perspectives and cases from around the world*, Oxford University Press, Oxford, UK pp 240-249. ISBN: 978-0-19-956064-6

#### Conference papers – recent example

Fisher-Jeffes, L. N., Armitage, N. P., Carden, K. and Winter, K, et al (2017) *Addressing Water Scarcity in South Africa through the Use of LID*, International Low Impact Development Conference

#### Blog site: recent information

[www.kevin-winter-uct.com](http://www.kevin-winter-uct.com)

## 2015-18 and current funded research projects

Royal Society International Collaboration Award: “Determining the performance of large biofiltration cells in treating runoff from a slum settlement and its reuse for urban food production” A collaborative project between Coventry University and UCT (37 months UCT value - R2.4 million)

Global Challenges Award: “Waste-Food-Energy Urban Living Labs – mapping and reducing waste in Food-Energy-Water Nexus”. A consortium of 17 Universities and commercial enterprises. (36 months UCT value – R1 million)

Guidelines for the development of Water Sensitive Cities, WRC Project, K5/2071 (Value R2 000 000 over three years)

Paradigm and research priorities for South Africa, WRC Project, K5 / 2170 (Value R300 000 over 12 months) [www.aquaduct.org.za](http://www.aquaduct.org.za)

A gap analysis of technologies, techniques and capacity for the water and wastewater sector of South Africa, WRC Project, K5/2258/3 (Value R450 000 over 9 months)

Current: the efficacy of permeable paving in climate mitigation and water harvesting: Water Research Commission Project (housed in EBE) : R500 000

WRC Water Sensitive Settlements: WRC funded projects housed in EBE to the value of R2million per annum over the next 3 years.

## Social Responsibility involvement

### **(a) Friends of the Liesbeek and Liesbeek Maintenance Project** **[www.fol.org.za](http://www.fol.org.za)**

- Conservation, protection and management of an urban river system: rehabilitation, flood attenuation, restoration of ecosystem services
- Citizen science opportunity: data collection, data capture and analysis
- Ongoing involvement for the past 20 years in co-ordinating the restoration of the riverine corridor and ecology of the river.
- Develop of human capacity to maintain the river system: currently employs 6 full time staff, and co-ordinates approximately 25 workers from employed in an Extended Public Works Programme
- Responsibly for raising approximately R500 000 per annum to sustain the programme
- Provides valuable projects for UCT staff and students from Departments of Environmental & Geographical Science, Civil Engineering, Anthropology, Planning, and Landscape Architecture.

### **(b) Peninsula Paddle**     **[www.wordpress.peninsulapaddle.com](http://www.wordpress.peninsulapaddle.com)**

- 2017 - Co-ordination of annual event to raise awareness of the conditions of urban river systems and conditions of land use and residential area adjacent to river systems
- Instrumental in 2011 in initiating the Kader Asmal Project (Extended Public Works Programme), a poverty alleviation programme involving over 200 workers in 18 different rivers across the Cape Peninsula (funded until 2016 – value R138 000 000)
- Awarded as the best regional project in 2012 by the Wildlife and Environmental Society Western Cape.

**(c) Regional Government**

- 2017 - Director of Research: the Water Hub, Franschhoek. A Western Cape Government project to improve the condition of the Berg River and to build capacity and research in green infrastructure and management.
- Winter, K (2015) *Cool Shacks*, Western Cape Government Sustainable Housing Summit, Cape Town, March 2015.

**(d) Local Government**

- 2017 onwards - Member of the City of Cape Town Advisory Resilience Task Team established to address the immediate water crisis in the city and to develop long term resilient strategies to adapt to a water scarce region.