

## Research Projects funded/co-funded Water RDI Roadmap funding

### Cluster 1 Projects: Alternative Sources

Financial Year	Project Name	Organization
2016/17	The hydrogeology of Groundwater Region 39	North-West University - Potchefstroom Campus
2016/17	Water recovery from flue gas evaluation	University of Western Cape
2017/18	Development of Research, Development, and Deployment (RDD) implementation programmes for Cluster 1 of the Water RDI Roadmap: Alternative Sources of Water	Sustento Development Services cc
2018/19	Towards the sustainable exploitation of groundwater resources along the West Coast of South Africa	CSIR
2018/19	Use of winery wastewater as a resource for irrigation of vineyards in different environments	ARC Infruitec-Nietvoorbij
2019/20	Accessible Greywater Solutions For Urban Informal Townships In South Africa Urbwat	University of Witwatersrand
2019/20	The status and extent of de facto water reuse in South Africa	Chris Swartz Water Utilisation Engineers
2020/21	Water use of marula ( <i>Sclerocarya birrea</i> ) tree crops in various agroecological regions and postharvest utilization of its fruit and by-products	University of Venda
2020/21	A demonstration of treatment technologies for direct reclamation of wastewater for potable use	Umgeni Water
2020/21	Economic management of conjunctive use of irrigation water and shallow ground water	University of the Free State
2020/21	Evidence-based assessment of NWRM for sustainable water management (EviBAN)	Stellenbosch University Water Institute
2020/21	Restoration of Estuaries using a socio-ecological systems framework	Nelson Mandela University
2021/22	Developing bioreactors for production of hydrogen from wastewaters	Stellenbosch University
2021/22	Development and testing of an isothermal amplification and lateral flow assay to detect selected pathogens in water	University of Cape Town
2021/22	Evaluation of the long term operation of Membrane Capacitive Deionization: Industrial Scale MCDI system Development	University of the Western Cape
2021/22	Irrigation with mine affected waters in Mpumalanga	University of Pretoria
2021/22	Risk framework for multiple stressors and integrated sustainability management of the transboundary water resources of the Inkomati basin, Southern Africa	University of Mpumalanga

2021/22	Surveillance and risk assessment of ESKAPE pathogens in water sources in sub-Saharan Africa	Stellenbosch University
2021/22	Sustainable Waste Activated Sludge Treatment using Integrated Anaerobic Digestion and Ozonolysis, and Codigestion with Food Waste	Vaal University of Technology
2021/22	Towards A Hydrological Soil Map Of South Africa (Hydrosoil) – Developing A Protocol And Showcasing Its Uses	Northwest-Potchefstroom
2022/23	Development of a frontier technology-based smart digital operator for rural water treatment plants - mitigating against health issues from poor plant control	Saintelligent Dynamics (Pty) Ltd
2022/23	Development of a urine evaporation solution for innovative re-engineered sanitation systems	WASH R&D Centre, University of KwaZulu-Natal
2022/23	Evaluation and modelling of an integrated tannery wastewater system used for resource recovery and process water reuse	University of Cape Town
2022/23	Evaluation of health risks associated with occupational exposures to microbiological and chemical contaminants at wastewater treatment plants and reuse sites	National Institute for Occupational Health
2022/23	Feasibility of using seawater to flush toilets in the African context	University of Cape Town
2022/23	Guidelines for Permeable Interlocking Concrete Pavements (PICP) in South Africa	University of Cape Town
2022/23	MapWAPS - Mapping woody invasive alien plant species and their impacts in strategic water source areas	Agricultural Research Council
2022/23	Project title: MapWAPS - Mapping woody invasive alien plant species and their impacts in strategic water source areas	Agricultural Research Project
2023/24	Are South African Groundwater Resources Under Threat from Emerging Contaminants and their Transformation Products Leached from Biosolids and Commercial Inorganic Fertiliser Amended Soils?	University of Pretoria
2023/24	Assessment and development of synthetic design storms for use in small catchments in South Africa	University of Pretoria
2023/24	Evaluation of groundwater and spring water quality in five Eastern Cape local municipalities: An approach of multi-hazards towards water security and possible solutions	University of Johannesburg
2023/24	Research-based exploration of deep groundwater within the eastern limb of the Bushveld Igneous Complex for hydrogeological characterisation and potential future water resource identification	Institute for Groundwater Studies (IGS), University of the Free State Province
2023/24	The study of occurrence, distribution, and the fate of emerging contaminants in groundwater in the greater Durban-Pietermaritzburg Region, South Africa	University of KwaZulu-Natal

### Cluster 2 Projects: Governance, Planning, Management of Supply

Financial Year	Project Name	Organization
2016/17	Integrated land use and water use in Water Management Areas, with a view on future climate and land use changes	CSIR
2016/17	Revision of the 1996 South African Water Quality Guidelines - Development of risk-based approach for recreational water use	CSIR
2017/18	Development of Research, Development and Deployment (RDD) implementation programme for Clusters 2 and 5 of the Water RDI Roadmap: Improve Governance, planning and management supply and demand	Bosch Capital (Pty) Ltd
2018/19	A National Assessment of Potential Climate Change Impacts on the Hydrological Yield of Different Hydro-Climatic Zones of South Africa	Centre for Water Resources Research
2018/19	Kukimbia: the impact of environmental refugees in Southern Africa	CSIR
2018/19	The development of an integrated system for adaptation and mitigation to hydrological drought in South Africa	IWR Water Resource
2019/20	An investigation of the historical and projected occurrence of the South African mid-summer drought and its implications for the agro-water budget	South African Weather Service
2019/20	Contributions of an ethically-grounded and value-based approach to water governance: the case of two contrasting catchments	Rhodes University - Institute of Water Research
2019/20	Monitoring hydrological dynamics and connectivity in non-perennial rivers using remote sensing	CSIR
2019/20	Using land-use changes to mitigate impacts of future droughts on water yields in South Africa.	University of Cape Town
2021/22	A combination of chemical analysis and stakeholder's participation in solving the Hennops river pollution in Gauteng Province, South Africa	University of the Witwatersrand
2021/22	A stakeholder-driven process to develop a more equitable and sustainable water resource management plan	Rhodes University
2021/22	Quantities and quality of poop and pee in school sanitation facilities	University of KwaZulu Natal (WASH R&D Centre)
2021/22	Towards A Hydrological Soil Map Of South Africa (Hydrosoil) - Developing And Showcasing Its Uses	North-West University
2021/22	Water Use And Water Productivity Of Pomegranate Orchards	ARC Infruitec-Nietvoorbij
2022/23	A review of rural water supply and sanitation services in South Africa 2001-2021: Learning from the past in order to plan for the future	Partners in development (PID)
2022/23	Quantifying the extent and rate of changes in wetland types of the Maputoland Coastal Plain with remote sensing	Council for Scientific and Industrial Research (CSIR)
2022/23	Water governance, institutions, and infrastructure integration for climate-resilient pathways for smallholder farming systems in the Western Cape, South Africa	Cape peninsula university of technology

2023/24	Governance and institutional arrangements for accelerating equity in the water-land-agricultural nexus: A case study of resource poor farmers in smallholder irrigation schemes in the Lower Sundays River and Great Fish River catchments.	Rhodes University, Institute for Water Research
2023/24	Development of a climate and water availability indices app to support decision-making across South African water management areas	Agricultural Research Council

### Cluster 3 projects: Build and Ecological infrastructure

Financial Year	Project Name	Organization
2016/17	Performance assessment of DEWATS constructed wetlands	University of Kwa-Zulu Natal
2017/18	An investigation into the impact of sludge return flows on South African wastewater treatment works	Royal Haskoning DHV
2017/18	Development of Research, Development and Deployment (RDD) implementation programme for Cluster 3 of the Water RDI Roadmap: Improve adequacy and performance of supply infrastructure (built and ecological)	Pegasys Strategy and Development (Pty) Ltd
2017/18	Electrochemical Unit Operations in Industrial Wastewater Treatment: The Development of Electrocoagulation and Photoelectrochemical Oxidation Reactors based on Novel Nanocomposite Electrodes	University of Johannesburg
2018/19	A holistic approach to assessing and implementing ecological water requirements	North-West University - Potchefstroom Campus
2018/19	Including the Fate of Chemical Precipitants and Other Products of Waste Resource Recovery Facilities in their Strategic Design and Operation	University of Cape Town
2018/19	Long-term monitoring and assessment of pour flush technology in South African on-site sanitation	Partners In Development
2019/20	Determining climate change on the ecosystem resilience of headwater wetlands in two catchments, Swaziland and South Africa	ARC
2019/20	Development and management of a Water Sensitive Design Community of Practice programme	University of Cape Town: Future Water Institute
2019/20	Enhancing research, innovation and impact through engaged Communities of Practice in Strategic Water Source Areas	SANBI
2019/20	Investigation of the occurrence and risk of Infection of pathogenic and antibiotic resistant Campylobacter species in selected source waters within the Kowie catchment, Eastern Cape, South Africa	Rhodes University
2019/20	Liveable Neighborhood With Water As Foremost Priority: Redesigning An Existing Neighborhood Using Water Sensitive Design	University of Cape Town
2019/20	Microplastic as emerging contaminants: methods development, ecotoxicity testing and risk assessment towards freshwater resource protection in South Africa	Rhodes University - Institute of Water Research

2020/21	Determine Peat Loss and Develop Management and Rehabilitation Protocols for Peatlands in South Africa	Agricultural Research Council
2020/21	Long-term impacts of entrenchment of pit latrine and waste water sludge	Partners in Development
2021/22	Development of a Best Practice Guideline for Design Flood Estimation in Municipal areas in South Africa	Chris Brooker and associates
2021/22	Development of cosmetic products from indigenous South African wetland plants	University of Pretoria
2021/22	Integrated urban wastewater modelling support to municipalities	University of Kwazulu Natal
2021/22	Pilot study: assessment and development of synthetic design storms for use in urban environments	University of Pretoria
2021/22	Pipeline leak detection using distributed fibre optic temperature, strain and vibration sensing	University of Pretoria
2021/22	The identification of the most suitable Brachiaria genotypes for improved livestock production in water-limited agro-ecological areas of South Africa	Agricultural Research Council
2021/22	The Impact of Energy Efficient Processes and Technologies on Cost and Compliance at Municipal Wastewater Treatment Plants	Water Group Holdings (Pty) Ltd
2021/22	The Role of Emerging Innovative Wastewater Sludge to Energy Technologies in Transitioning to a Circular Economy in the Water Sector: A South African Case Study	TruSense Consulting Services
2021/22	Up-Scaling Partial Nitrification-Anammox (PN/A) Process For The Treatment Of Anaerobic Sludge Digester Effluent - A Pilot-Scale Study	Institute of Water and Wastewater Technology - Durban University of Technology
2022/23	Advancing Circular Economy in the Water Sector: Utilization of Biochar from Sludge Treatment in a Novel Technology for Wastewater Effluent Recovery and Reuse	Trusense consulting services
2022/23	Development Of A Toolbox For Design Flood Estimation: Accounting For Non-Stationary Data In Design Rainfall Estimation	University of KwaZulu-Natal
2022/23	Drone adaptation and configure to sensor apparatus for on-site, real-time digitalised water quality test application	University of Johannesburg
2022/23	Framework for Integrating Green Infrastructure into Formal Urban Asset Management Systems	Prime Africa Consult
2022/23	Integrated urban wastewater modelling support to municipalities	UKZN
2022/23	Subsurface water in terms of future urban settings	University of Cape Town
2022/23	Towards A Hydrological Soil Map Of South Africa (Hydrosoil) – Developing A Protocol And Showcasing Its Uses	North West university
2022/23	Transformative approaches in managing human waste and wastewater by reframing nutrient recovery from innovative sanitation technologies as integral components of farming and food systems	UKZN
2022/23	Water Sensitive Design and Planning solutions for Gauteng MEGA Human Settlements	!@CONSULTING (PTY) LTD

2023/24	A Novel Solar-Powered Cold Plasma Ozonation System For Point-Of-Use Drinking Water Treatment	University of Pretoria
2023/24	Adaptation of an existing sidestream anammox-mediated system treatment of mainstream wastewater	Durban University of Technology
2023/24	Antibiotic resistant endophytes and quality of irrigation water: Towards the development of a prevention model for South African smallholder farmers	North-West University (Potchefstroom)
2023/24	Assessing the impact of different pollution sources on the type of microplastics, associated microbial communities, antimicrobial resistance and transport of microplastics in selected urban rivers in South Africa	Durban University of Technology
2023/24	Disrupting Bound Moisture within Faecal Sludge to Improve Water Removal Processes	University of KwaZulu-Natal
2023/24	Risk Assessment of Plastic Pollution in South Africa's Crucial Transboundary Rivers	CSIR
2023/24	Scoping study on the occurrence and prevalence of pharmaceuticals in wastewater treatment plants receiving wastewater from hospitals in South Africa	BAAS Technology and Consulting
2023/24	Smart integrated anaerobic-photocatalytic magnetized system for valorization of wastewater into bioenergy	Durban University of Technology
2023/24	Surveillance Of Multidrug Resistant Enteric Bacteria In Wastewater Sources And Their Association With Clinical Pathogens In South Africa	University of Venda
2023/24	Towards Data-Driven Digital-Twins for Integrated Wastewater Reclamation and Reuse	University of Cape Town
2023/24	Water shortage effects and utilization of prickly pear fruit on growth performance, blood indices, meat quality and methane emissions by Pedi goats.	University of Limpopo

#### Cluster 4 Projects: Smart Business

Financial Year	Project Name	Organization
2017/18	Development of Research, Development and Deployment (RDD) implementation programmes for Clusters 4, 6 & 7 of the Water RDI Roadmap: Run water as a financially sustainable business; reduce losses and increase efficiency of productive use; improve performance of pricing, monitoring and billing	Pegasys Strategy and Development (Pty) Ltd
2018/19	A nature inspired approach for producing bio-bricks from urine (project extension)	University of Cape Town
2018/19	Development Of Women And Youth Self Sustainable Enterprises Within The Small Holder Farming Sector In Limpopo	Kanimambo Innovative Solutions
2019/20	Enhancing contributions of inland fisheries to rural livelihoods: An empirical assessment of freshwater fish stocks, fisheries potential, market value chains, co-management and governance arrangements	University of Western Cape

2019/20	Entrepreneurial development for establishing small farming businesses and employment by youth in rain-fed crop farming	University of Kwa-Zulu Natal
2019/20	Hydropower Atlas for South Africa	University of Cape Town
2019/20	Opportunities to improve operation of smallholder canal schemes in Vhembe, Limpopo Province	University of Witwatersrand
2019/20	Water use and physical as well as economic productivity of indigenous herbal teas in the winter rainfall region	CSIR
2021/22	Entrepreneurial risk linked to water quality, water security for urban based farming and agro processing	UKZN
2022/23	Exploring next generation water loss tracking, compliance, management, and performance solutions	Isle Utilities
2022/23	Integrating water-energy-food nexus innovations and practices into policy, governance and institutional frameworks for sustainable development in Vhembe District, Limpopo Province, South Africa	CLOVITA Consulting Services
2022/23	Integrating water-energy-food nexus innovations and practices into policy, governance and institutional frameworks for sustainable development in Vhembe District, Limpopo Province, South Africa	CLOVITA Consulting Services

#### Cluster 5 Projects: Governance, Planning, Management of Demand

Financial Year	Project Name	Organization
2016/17	Development and application of a dynamic water balance model to evaluate possible interventions to improve water security in Kgetlengrivier Local Municipality	University of Johannesburg
2017/18	An Assessment to determine if Pit Lakes are a solution to Coal Mine Closure in South Africa	GCS Water and Environment
2018/19	Development of a risk based approach for assessing livestock watering and aquaculture water quality guidelines	Golder Associates Africa
2018/19	Vulnerability Of Small-Holder Farmers To Agricultural Risks And Climate Change	Kanimambo Innovative Solutions
2019/20	Developing a guideline for rainfed production of underutilised indigenous crops and estimating green water use of indigenous crops based on available models within selected bio-climatic regions of South Africa	University of Kwa-Zulu Natal
2019/20	Evaluation of health risks associated with occupational exposures to biological and chemical contaminants at wastewater treatment plants and recycled water use sites	National Institute of Occupational Health
2019/20	Water-Energy-Food Nexus as a Sustainable Approach for Advancing Food and Nutrition Security and Achieving SDGs 2, 6 and 7 with Specific Attention to Efficient Energy Use Food Production	University of Kwa-Zulu Natal
2020/21	Current status and future predicted distribution patterns of bilharzia transmitting snails under climate change and implications for vector-borne diseases in South Africa	North-West University

2020/21	Development of an in-situ faecal sludge solar dryer at pilot-scale	University of KwaZulu-Natal
2021/22	Assaying water requirements and hydric stress tolerance of the South African indigenous sheep genetic resources for water and food security	Stellenbosch University
2021/22	Determining water use, water use efficiency and nutritional water productivity of Moringa under varying crop management practices	Agricultural Research Council
2021/22	Development of a Water Meter Performance Database for South Africa	Aquants (Pty) Ltd
2021/22	Dynamics Of South African Weather Systems In Present And Future Climates	University of Pretoria
2021/22	Enhancement and application of a dynamic water balance model to improve water security in the Steve Tshwete Local Municipality water supply system	WR Nyabeze and Associates CC
2021/22	Increasing water use, productivity and savings in full bearing macadamia orchards under micro-irrigation	University of Pretoria
2021/22	Integrating water-energy-food nexus innovations and practices into policy, governance and institutional frameworks for sustainable development in Vhembe District, Limpopo Province, South Africa	CLOVITA Consulting Services
2021/22	The socio-technical dimensions of, and solutions to non-revenue water in eThekweni Municipality and South Africa	University of Kwazulu Natal
2021/22	Use of drones to monitor crop health, water stress, crop water requirements and improve crop water productivity to enhance precision agriculture and irrigation scheduling	University of KwaZulu-Natal
2022/23	Development of sustainable community grazing and climate smart fodder banks for smallholder livestock enterprises in Limpopo and Mpumalanga provinces of South Africa	Khanimambo Innovative Solutions
2022/23	Scoping study on the occurrence and prevalence of pharmaceuticals in wastewater treatment plants receiving wastewater from hospitals in South Africa	BAAS
2023/24	Equity dimensions of the Nelson Mandela Bay water crisis and the implementing context as enabler or barrier for uptake of translatable lessons from the Cape Town Water crisis.	Rhodes University

#### Cluster 6 Projects: Efficiency

Financial Year	Project Name	Organization
2016/17	Characterizing municipal wastewater sludge for sustainable beneficial agricultural use	University of Pretoria
2016/17	Determining water use of indigenous grain and legume food crops	University of Kwa-Zulu Natal
2016/17	Review and Update the South African Irrigation Design Manual and Irrigation User Manual	ARC

2016/17	Water-efficient production methods and systems in agro-forestry, woodlands and forestry plantations	University of Pretoria
2017/18	Guidelines for technology transfer to manage irrigation induced salinity with precision agriculture	University of the Free State
2017/18	Water use of avocado and macadamia orchards	University of Pretoria
2018/19	Integrating STD prevention and mine waste minimization through the circular economy: fabricated soils from coal waste.	University of Cape Town
2018/19	The pulp and paper wastewater Biorefinery: Potential for concomitant value recovery and wastewater treatment	University of Cape Town
2018/19	Water Use Efficiency And Carbon Sequestration Potential Of Indigenous Crops	University of Kwa-Zulu Natal
2019/20	Preventing Acid Rock Drainage Generation from Coal Interburden Waste Rock: Comparing long-term efficacy and technoeconomic considerations	University of Cape Town
2019/20	The state of irrigation water losses and measures to improve water use efficiency on selected irrigation schemes	ARC
2019/20	Water use of indigenous fruit tree crops	CSIR
2021/22	Adoption of small-scale irrigation farming as a climate-smart agriculture practice through vegetable production systems in Limpopo	ARC
2021/22	Implementation Of Effect-Based Methods For Water Quality Assessment (Previously - The expansion of the toolbox of bioassays to assess effect-based toxicity in water )	University of Pretoria
2021/22	Mass Development Of Aquatic Macrophytes – Causes And Consequences Of Macrophyte Removal For Ecosystem Structure, Function, And Services	Rhodes University
2021/22	Occurrence of glyphosate and AMPA in South African surface water resources	North-West University
2021/22	Technology exchange and training of active, recovery hydroponic systems for vegetable production in Gauteng province, South Africa	Agricultural Research Council
2021/22	The adoption of social media among smallholder farmers for sustainable water practices	University of Mpumalanga
2021/22	Use of drone technology for monitoring the state of crops to improve water use productivity with precision agriculture and improved irrigation scheduling	University of KwaZulu-Natal (PMB)
2022/23	Remote Citizen Science Learning Support System and Adapted Toolbox for Online Community Training	GroundTruth Wetlands CC
2023/24	An integrated multi-omics approach to uncover drought tolerance biomarkers in two underutilised crops: Sweet potato ( <i>Ipomoea batatas</i> L.) and Cassava ( <i>Manihot esculenta</i> Crantz)	University of South Africa
2023/24	Assessing the context and priorities for Irrigation Development and Agricultural Water Management (IDAWM) Framework for South Africa	CLOVITA Consulting Services

2023/24	Determine water use of Cannabis tree in Eastern Cape and KwaZulu – Natal Provinces	Rhodes University
2023/24	Determine water use of tomato crop in Limpopo Province.	Council for Scientific and Industrial Research
2023/24	Developing a database and utility tool for underutilised indigenous crops for increased agricultural diversification in South Africa	University of KwaZulu-Natal, Pietermaritzburg
2023/24	Piloting Irrigation using Gold Mine Impacted Waters as a Long-Term Sustainable Solution for Mine Water from the Witwatersrand Basins	University of Pretoria
2023/24	Water governance, institutions, and infrastructure integration for climate-resilient pathways for smallholder farming systems in the Western Cape, South Africa	Cape Peninsula University of Technology
2023/24	Water use of Apricots orchards under irrigation	University of the Free State

#### Cluster 7 projects: Monitoring and Metering

Financial Year	Project Name	Organization
2016/17	Establishing remote sensing toolkits for monitoring freshwater ecosystems under global change	CSIR
2017/18	Antibiotic resistant bacteria and genes in raw and drinking water: Implications for water production and water quality monitoring	North-West University - Potchefstroom Campus
2018/19	Consolidation of data and application of big data tools to enhance national and transboundary data sets in Southern Africa that support water security decision making.	Umvoto Africa (PTY) Ltd
2018/19	Groundwater secure transboundary systems	Delta H (PTY) Ltd
2018/19	Imagining solutions for extracting further value from existing datasets on surface and groundwater resources in Southern Africa	University of Witwatersrand
2018/19	Localizing transboundary data sets in Southern Africa: A case study approach	University of the Western Cape
2018/19	Measurement of water pollution determining the sources and changes of microbial contamination and impact on food safety from farming to retail level for fresh vegetables	University of Pretoria
2018/19	Mobile app for hydrocensus and groundwater monitoring	North-West University - Potchefstroom Campus
2018/19	MULTI-PLATFORM REMOTE SENSING TOOLS FOR PEATFIRE DETECTION AND MONITORING	ARC
2019/20	Approaches to monitor and characterize the biological stability of drinking water in distribution networks	University of Pretoria
2019/20	The predictability of rainfall producing synoptic weather systems at the medium range forecasting time scale over South Africa	University of Pretoria
2021/22	A Nation-Wide Monitoring Exercise For Sources, Occurrence And Levels Of Per- And Polyfluoroalkyl Substances (PFASs) In South African Source And Drinking Water	Tshwane University of Technology

2021/22	Development and application of a big data platform to improve agricultural water resources management in South Africa	University of Pretoria – Contract not yet back
2023/24	A combination of rapid direct analysis and machine learning assisted suspect screening of emerging pollutants and their contribution to antimicrobial resistance	University of Limpopo
2023/24	A Rapid Affordable Point-of-Care multifunctional Integrated Water Monitoring Microfluidic DNA Sensor coupled with Mobile Interface: Application to waterborne pathogens and toxic heavy metals	University of South Africa
2023/24	Generating a Biochemical and Molecular Agronomic Database of Amaranthus response to Drought Stress	University Of the Western Cape

#### Projects that cut across all Cluster areas

Financial Year	Project Name	Organization
2017/18	Mapping out financing opportunities and models for water-linked research, development and innovation	Bosch Capital (Pty) Ltd
2017/18	Mapping out the Water Research, Development and Innovation (RDI) Ecosystem in relation to the Water RDI Investment Priorities	Quantitative Evidence Research Consultancy Services cc
2017/18	The state of water research in the African continent	Quantitative Evidence Research Consultancy Services cc
2018/19	Consolidation of a National Network of Water Solutions Test Beds	Water Groups Holdings
2018/19	Development of technology validation frameworks for the water sector	Chris Swartz Water Utilization Engineers
2019/20	Water Fellows Programme: Water RDI Roadmap Expanded Professional Development	GreenMatter
2019/20	Water RDI Roadmap Skills Mapping Study	Stellenbosch University