



Fabiana Tessele

1/103 Waddell Rd, Bicton, WA 6157
M: 0417 615 332 E: Fabiana@tessele.com

Profile

Fabiana is a highly experienced engineer with over 18 years' experience in the water, wastewater and renewable energies industries. Her portfolio of projects has included project management, design & design management, construction support, commissioning, and operators training and handover including process, civil, mechanical, electrical components. Fabiana is an active senior leader, resilient and energetic, combining an inspiring leadership style with robust project management skills. Strong communicator, whole of project approach to delivery, with open and collaborative management style. Fabiana is recognised as being able to bring together various stakeholders, while firmly committed to delivery of all project goals and milestones.

Experience Summary

TESSELE CONSULTANTS (Perth, WA) 2016 - Present

Director

Director of boutique consultancy focussed on integrating water, wastewater and resource recovery projects.

AECOM (Perth, WA) 2012 - 2016

Associate Director, Group Leader – Water and Urban Development (WUD)

The WUD Group encompasses several Teams, namely: Civil Infrastructure, Water & Wastewater Infrastructure, Water Resources, Geotechnical & Tunnelling and Asset & Information Management. The Group Leader is responsible for staff leadership and engagement, business development, resource planning, pursuit of major projects and bidding, strategic growth, commercial and contractual deals, commercial modelling (alliances) and expert technical advice across APAC region. Project Director in several projects within APAC region, accountable for the coordinated management of multiple related projects directed toward strategic business and other organizational objectives. Client Director Water Corporation.

Projects details

- Advance WA Alliance (Lend Lease, UGL, Water Corporation). Beenyup Advanced Water Replenishment Plant (AWRP). 130 MLD, \$116 M (est.). Capture manager, direct involvement during positioning, bidding, and shortlisting process throughout Alliance Development Stage (AECOM as design partner).
- Kanji WWTP (Singapore). Wastewater treatment plant including water reuse and biosolids management. Peer review – process design. Ongoing project.
- Mangere WWTP. Capture manager, bid manager, client development relationship. Peer reviewer process design. Watercare Services Ltd (Auckland, NZ). Ongoing project.
- Basis of design for Onslow Desalination Plant, Wheatstone Social Infrastructure, Chevron. Internal peer review of conceptual design.
- Woodside Pluto and Karratha desalination plants. Internal peer review of conceptual design.
- Coca Cola – Maputo (Mozambique). Concept design and independent review of water and wastewater treatment design for a new coca cola factory.



- Exxon Mobil PNG. Review and evaluation of Wastewater Treatment Plants at five camps operated by Esso Highlands Limited Papua New Guinea.
- Independent review of the Pukekohe wastewater treatment plant performance. Watercare Services Ltd (Auckland, NZ).
- Independent review of the upgrade of Wanganui wastewater treatment plant. Wanganui District Council (Wanganui, NZ).
- Independent review of the solid stream of Wanganui wastewater treatment plant. Wanganui District Council (Wanganui, NZ).
- Chevron Wheatstone FIFO Village Water Management plan. Peer review.

Project director role:

- Desalination Balance of the Plant Design. Cape Preston, Sino Iron.
- Cape Preston Master Services Agreement. Sino Iron. General civil infrastructure and utilities.
- Cape Preston Master Services Agreement. Cape Port Compound. Non-process infrastructure, utilities, civil infrastructure.
- City of Bunbury Water Reuse Scheme pre-feasibility study.
- Mirrabooka 3 Superintendency. City of Stirling. Urban development.
- Fremantle Ports Asset management program
- Water Corporation Asset Criticality Framework
- Switchboard Condition Assessment, Water Corporation WA
- Roelands Water Supply

Client Director for Water Corporation

Averda Environmental Services (Dubai)

2011-2012

Operations Director

Averda Water. Day-to-day operations, team management, business development and strategic planning. In charge of the operations of the water division across several countries in the Middle East. Managing the technical team focusing on full project delivery of water and wastewater treatment plants, including complete financial management, engineering, procurement, commissioning and operation & maintenance, including a wide variety of industries. Responsibilities included team leadership as well as commercial, contractual, and technical aspects. Build credibility, establish connection, and maintain communication with stakeholders at multiple levels, including those external to the organization. Highlight for implementing the "Shared Savings" business model, where the customers paid their investments by sharing the reduced cost when implementing water reuse systems. Main clients included Emirates Airlines, Mall of the Emirates, KAUST University (Jeddah), Dubai Municipality and several staff accommodation providers.

Tadweer Waste Management (Dubai)

2010-2011



Operations Director, acting COO

Company management restructuring, technology upgrade and feasibility studies for expansion. Technology selection for sustainable waste management facility in Dubai. Alternatives assessment, technology selection for sustainable waste treatment alternatives including waste-to-energy, biogas, composting, reduction at source. Technical consulting to provide information for the asset investment plan, knowledge expertise in strategic business development and management methodologies, implementation of process to improve the waste treatment and management, generating valuable by-products. Assessment and application of innovative technologies to business, adding value to the waste.

Company representative at the dealings with the Dubai Municipality for licensing renewal approvals, as well as other external stakeholders. Influencing regulators and government entities along the process.

Highlight to significantly improving blue-collar employee welfare, implementing suitable health and safety practices, as well as improving their living conditions, affecting over 600 employees.

Concorde Corodex (Dubai)

2009-2010

Design Manager and Project Manager

Managed the design department for water and wastewater projects and developed several projects in the Middle East (water, waste water, odour control). Involved on all major aspects of D&C contracts, leading the technical team, managing suppliers, sub-contractors, project management, design management, construction support. Construction supervision, commissioning, troubleshooting, training and handover of several water and wastewater treatment plants.

Highlight to the design management, commissioning and handover of several water and wastewater treatment plants in a very short space of time, in extremely harsh environment, challenging conditions, complex culture fit.

- Al Barari. Technical Lead, design manager. Integrated water management plan and wastewater treatment plant. Luxury development in Dubai, using treated wastewater for landscaping and waterways.
- Mafraq MBR. 104 MLD MBR for water reuse. Abu Dhabi Sewerage Services Company. Design manager during Design, Fabrication, Supply, Installation, Maintenance & Commissioning of MBR WWTP.
- Zakher MBR. 60 MLD MBR for water reuse. Abu Dhabi Sewerage Services Company. Design manager during Design, Supply, Installation, Commissioning, Operation & Maintenance of EFLO MBR capacity 15 MLD.
- Delma Island Project, 11 MLD SWRO and 2nd pass 7 MLD SWRO plant. Abu Dhabi Distribution Company. Design manager during EPC Contract. Design, Supply, Installation, Commissioning, Operation & Maintenance.
- Dibba Al-Hisn 35 MLD MBR Sewage treatment plant. Sharjah Municipality. Design manager during EPC contract, Design, Construction and Commissioning of Dibba Al Hisn Foul Sewerage Network Phase 1: Sewage Treatment Works (STW).
- Sharjah PS1 Odour Control Unit and Pumping Station. Sharjah Municipality. Project manager during EPC contract. Design, manufacture, supply, installation and commissioning of Odour Control Plant- Bio-Scrubber for removal of H₂S gas for air flow rate 3011 m³/h.



Tessele Consultants (Brazil and Dubai)

2005-2009

Associate

Consultant, advising private and government companies on water and wastewater treatment and reuse projects. Regulation and licensing, feasibility studies, concept design, technology choice, study of alternatives, procurement, equipment inspection at fabrication yards, project management, construction supervision and training. Managing key stakeholders, including clients, designers, sub-contractors and suppliers. Work delivered across a wide geography, including Brazil, Chile, Holland, Dubai, India, Taiwan and Malaysia.

Main clients:

Themagna Joint Venture, Brasilia, Brazil (Program Manager)

Program Manager for the upgrade of the complete water supply system for Brasilia (Brazil), providing water to a population of 3 million. Leading a multidisciplinary team of 80 engineers at peak, including the design of a DAM, 220 km of large diameter pipelines, two water treatment plants (545 MLD), and complete distribution system. Estimated project value of \$500 M. Master Plan, Feasibility Studies, Business Case and Concept Design, 40 years horizon. Client: CAESB (www.caesb.df.gov.br)

Project duration of 36 months, including:

- Water quality monitoring and modelling for 23 water supply alternatives
- Design of a DAM for water reservation, including algae control strategy
- A total of 220 km of large diameter pipelines for water supply. Modelling, surge analysis and design
- Several high capacity water pumping stations, including raw water, transfer pump stations and supply/distribution systems
- Two potable water treatment plants using Dissolved Air Flotation (302 MLD and 242 MLD)
- Distribution network and reservation tanks
- Water pressure program, aiming to minimise water losses on distribution

Goiás Verde Farm, Luiania, Brazil

Goiás Verde is a large-scale farm in central Brasil, with over 120,000 ha of area. Main products include tomatoes, peas, corn, soybeans, beans, pumpking and cattle. Includes a processing plant to can the products and a network of supermarkets.

- Design Manager and procurement of biodegestion plant to produce energy from 80,000 heads of confined cattle's waste.
- Feasibility studies to produce Biodiesel from the farm's waste (tomato seeds, waste soybeans, etc.). In collaboration with the University of Brasilia.
- Assessment of the feasibility to obtain carbon credits from emission reduction from environmental initiatives under the Kyoto Protocol
- Wastewater treatment upgrade, including new stabilisation ponds and aeration system.



Powertech, Amazon, Brazil

Concept design and feasibility studies for implementing Biogas production from 250,000 heads of Swine using the manure and agricultural waste. In collaboration with Oosterhof Holman, Holland.

Colmar Engenharia - Caesb, Brasilia Brazil

Several projects aiming to implement tertiary treatment, including advanced oxidation and disinfection on the catchment supplying water to Brasilia, as part of the integrated water management cycle. The treated sewage is directed to DAMs and rivers used as sources of potable water.

- WWTP Samambaia Design and design management and commissioning. Algae and phosphorous removal from stabilization ponds using DAF, Capacity 104 MLD
- WWTP Santa Maria. Design and design management and commissioning. Algae and phosphorous removal from stabilization ponds using DAF, Capacity 70 MLD
- Upgrade of WWTP Recanto das Emas. Design and design management. Conversion of stabilization ponds into Biological Nutrient Removal (5 stages Bardenpho and DAF). 43 MLD.
- Sludge treatment system, for WWTP Samambaia. Design and design management and commissioning including anaerobic digestion and dewatering using centrifuges.
- Sludge treatment system, for WWTP Santa Maria. Design and design management and commissioning including anaerobic digestion and dewatering using centrifuges.
- Sludge treatment system, for WWTP Recanto das Emas Design and design management of, including anaerobic digestion and dewatering using centrifuges.
- Biogas handling systems, including pipeline design and flare, for WWTP Samambaia.

SEMAE –Sao Leopoldo, Brazil (Engineering design, technical responsible)

- Upgrade of WWTP Vicentina, including Biological Nutrient Removal (N and P), DAF and sludge handling facilities. Capacity of 13 MLD.

AEA Consultoria, Brasilia Brazil (Senior Consultant – Regulation)

- Consultancy on regulatory process environment and sanitation for the first revision of the water tariff of CAESB, the public sanitation company of the Federal District (DF) Brasilia in Brazil. Client: ADASA, the government water regulation agency for the Brazilian capital. Project duration: 24 months.

Themag Engenharia e Empreendimentos, Brasilia Brazil (Technical Lead)

- Nutrient control plan for the catchment, including implementing tertiary treatment in all WWTP. Planning of water quality monitoring program, water quality management

Gaiapan, Rio de Janeiro Brazil (Project Manager, Construction manager)

- Managed the design, construction, commissioning and training of operators of a multipurpose wastewater treatment plant for industrial wastewater.



Intercontinental Leaf Tobacco, Jebel Ali, UAE (Project Manager, Design Manager)

- Wastewater Reuse System Implementation: project management, design management, procurement, construction support, commissioning, and operators training. Process, civil, mechanical, electrical components. Continuous support as environmental consultant, on air emissions, licensing, design and project management for the upgrade of the wastewater treatment plant for water reuse.

Diamond Developers, Dubai UAE (Sustainable Developments Advisor)

- Conceptual urban planning for the first sustainable city in Dubai, the Diamond Sustainable City. The scope included water supply systems, energy conservation, renewable energy generation, urban design and sustainable agriculture. Technical coordinator of the master plan for the water supply and wastewater treatment.

Aquaflot Industrial (Brazil)

1998-2005

Associate - Technical Director

Aquaflot started in 1998 as a small engineering & consultancy company focussed on the use of Flotation as a technology for water and wastewater treatment. With the time, the company grew into equipment manufacturing, specifically equipment for the reuse of water in car washing facilities, including a Patent development in association the Federal University. We all worked together on the execution and coordination of projects, and were fully accountable for the financial performance of the startup company. Management of research and technology development in wastewater treatment and reuse for petrochemical, mining, food, metallurgy, sanitation companies (water and wastewater).

UFRGS - Federal University of Rio Grande do Sul

1993-1998

Water quality analyst/Research Student

Performing several water quality analysis, and giving support to research and post-graduate students on their experiments and thesis. As part of the young scientist program sponsored by the Brazilian government, we had to develop our own research projects and present them at an annual conference.

Qualifications

Doctorate, Environmental Engineering and Water Resources	2005
M.Sc. Environmental Engineering and Water Resources	2001
B.Sc. Chemical Engineering	1998
Water Quality Analysis Laboratory Technician	1990



**Leading
Diversity**

Having worked in several countries and exposed to different cultures, Fabiana is able to rapidly identify the particular needs of each stakeholder, and provide tailor-made solutions that suit both the technical and financial requirements. Involved in managing projects delivered by multicultural and multidisciplinary teams for several years, she is able to establish and maintain clear communication within a diverse environment, using adaptable leadership styles.

**Other
Interests**

Australian Water Association (AWA), Elected Member of WA Committee and Peer Reviewer

Advisory Board - AECOM Diversity and Inclusion Advisory Board (WGEA Award Winner 2015)

AECOM Technical Practice Lead ANZ for Biological Nutrient Removal (2012-2016)

Independent Reviewer Wastewater Treatment – Water Corporation (2013-2016)

Invited technical specialist to Aroona Alliance’s Think Tank workshop, April 2015.

Over 30 publications in peer reviewed journals, conferences and book chapters.

Fluent in English, Spanish and Portuguese

Meditation and mindfulness practices