

Name: Nerida Beard



Education, Experience & Achievements

I am an Environmental Engineer by training, from Griffith University (QLD) awarded in 2001. I have 10 years' experience in a range of non-traditional engineering roles, often in rural and remote areas. My first job was as part of a research team studying hydrology and river chemistry of arid rivers in Western Qld and freshwater systems in SE Qld, determining how they function and what keeps them healthy and including groundwater and surface water interactions. From there I wanted to apply my skills to a more practical purpose, and took a job in Alice Springs to work on water supply issues in remote Aboriginal communities in Central Australia. This was an incredible apprenticeship in black/white history and relationships and opened my eyes to grinding social inequities and disadvantage in our own country. It was also a very positive experience, as I worked first-hand with incredible Indigenous people who were determining their own paths, leading their own families by keeping family 'outstations' running and motivating others to determine their own quality of life. I was able to participate in a CRC network of water professionals which I drew from to get expert engineering and water science advice to remote Indigenous outstation residents to assist them to solve their water problems. From this role I moved into the Northern Territory government-owned utility, Power and Water, where I now manage a team and a program which engages Indigenous residents in water management and water conservation in the larger Indigenous communities in which we deliver water and sewerage services. A third of these communities are 'water stressed' and our program helps alleviate this by engaging residents in water conservation and water management in an inclusive and respectful way.

What led you to choose Engineering as a career?

I can't really pinpoint this to one particular thing, but generally I had a knack for maths and science, some really inspiring teachers in those areas at High School and a keen interest in the environment from a young age. The environmental interest may have had something to do with being born in a town on the Murray River and despite not living there past 10 years old, feeling personally affected by that river's fate in recent years. We also grew up camping and in the outdoors. I also remember hearing from an inspiring young female chemical engineer in my chemistry class who told us that she'd reduced some dairy production process from 4 hours down to about 60seconds using a clever grasp of natural enzyme processes. I remember thinking what a massive impact that would have on energy and water usage and costs of production and what an incredible impact she could have on the world around her.

What is it about Engineering that inspires you?

I think the idea of being a trained 'problem-solver' – there is a huge diversity of areas of engineering now, but the common thing is we're all problem solvers and the world has lots of

problems to turn our hands to and be creative. That's inspiring to me because there are endless opportunities to contribute in a practical and lasting way.

What has been the high point in your career to date?

Where I am now is a really high point – managing a small innovative team, having responsibility for developing new strategies and methods of solving challenging issues of water stress in remote, arid and semi-arid areas. Having the opportunity to engage with Indigenous people and their thousands-year old knowledge systems and put it together with contemporary western science and engineer new solutions together to shared problems. It just ticks a lot of boxes for me – engineering challenge, sustainability, reconciliation, developing a 'two-ways' forward approach to an issue facing Australia. Chronic water stress is an issue in many areas and this program makes a contribution to how to be good custodians of the water resources so there's a healthy environment and something left for future generations.

What has been your biggest challenge so far and how have you solved it?

This is a hard one as there are many – but one of the biggest was taking the leap to Alice Springs, knowing very little about Aboriginal people and history in Australia. It was a really steep learning curve, and it would be easy to just see the problems and throw your hands in the air and think that it's all too hard. But there are inspiring leaders there if you're willing to close your mouth and open your ears and listen to their story. People were also very welcoming and refreshingly direct so I learned fast.

How have you managed your work and family commitments?

I don't have children but I think the work-life balance is a challenge. I love my work and if I'm not careful I can allow it to be all-consuming. My best defence against that is my calendar – scheduling in 'free time', time for rest and health such as exercise and making plans with those people in your personal life who are important to you. Holidays are especially important to me as a time for recharge and reflection, so I try to make them worthwhile.

Do you have any advice for women who are considering engineering as a career, or for those who are already Engineers?

I certainly don't feel qualified to give advice! But if you're considering engineering as a career, do it! It's given me such great opportunities to travel, contribute, learn and grow. Plus the financial independence you can gain as a professional.

It's also a continual learning process, so perhaps my advice is to be humble and look to others around you for what you can learn from them. At the stage of my career that I'm in, I'm also starting to look to the younger graduate or undergraduate engineers and what I can share with them that might help them develop. That is really fun and I find I learn a lot from them too. I always put my hand up at work to get the graduate engineers to rotate through my team as they always have great energy, enthusiasm to learn, and fresh ideas to draw from. My only other 'tip' would be to update your CV every 6 months or so, even if you're staying in your current job – it helps you to see where you've come from, what other skills you've developed and your growing expertise and value as an engineer. The stats say women aren't as good at 'selling' themselves and doing this review now and then can help you to build your confidence - which is especially handy when going into performance appraisals or pay reviews.