

Jane T Aiken PhD (Environmental Studies), Certified Professional Soil Scientist - Soil Science Australia CPSS2, **Environmental Scientist, Environmental Team Leader, Program Leader Ash Utilisation with Lend Lease (LLS Industrial Pty Limited)** at Mount Piper and Wallerawang Power Stations, Portland, New South Wales, Australia. 2006 >

As an environmental scientist I draw upon a skill set of formal training and develop and interpret technical data across a range of site specific aspects for surface water, groundwater, soils, landscape, revegetation and site rehabilitation. These technical observations are applied within a regulatory and an environmental management framework - within an adaptive approach to planning, implementation, monitoring, technical data management and review.

My professional practice has included management and monitoring of waste water irrigated soils in agriculture, management and project development for coal combustion products in a dry ash repository storage and management and program leadership for coal ash materials utilisation. My scope of work with coal ash use in agriculture includes environmental management - technical materials assessment, supply management and soils applications.

Within the professional focus of soil science I maintain accreditation as a Certified Professional Soil Scientist (Australian Society Soil Science Inc. [Soil Science Australia] (CPSS2). A CPSS accreditation provides a framework of technical and core professional values, complementing the broader environmental practice. Works at site are operation for dry ash repository management, and implementation and reporting for environmental management systems ISO 14001, site, projects, technical management, environmental review, applications and project planning, including closure planning and implementation, and monitoring oversight for a coal ash repository site. Works for coal ash utilisation(s) include technical writing for extension publications to the broader coal ash industry.

Education and Scholarship

Current studies with Charles Sturt University, NSW, Australia, in their masters' program Sustainable Agriculture. Completion of tertiary studies in 2006 through the University of Western Sydney (UWS), NSW, Australia with **PhD** - Environmental Studies – (research thesis microbial ecology and soil salinity); 2000 **BSc (Hons) 1** – (research thesis reduced early growth in wheat, molecular and soil biology), in 1998 **BSc** with majors in microbiology and environmental science.

Current Professional and Service and Memberships

- Soil Science Australia, Certified Professional Soil Scientist CPSS2 - 2007-2014
- Ash Development Association Australia, Member, National Technical Committee membership 2010-2014
- Soil Science Australia, New South Wales Branch, Secretary 2007-2009; Vice President 2012-2013; President 2014-2015.
- Water Science Technology - Journal Reviewer - current
- Soil Science Society of America - 2010-2013 membership.

Recent Publications, Journal (5)

1. Aiken, J. T. 2011. **Terminal Restriction Fragment Length Polymorphism: Review for soil microbial community analysis**, *Soil Science Society of America Journal*, 75(1): 102-111
2. Aiken, J. T., Derry, C., Attwater, R. 2010. **Impact of Improved Recycled Water Quality on a Sydney Irrigation Scheme**. *Water*, June 2010
3. Ng, L-T and Aiken, J. T. 2010. **Ameliorating Soil Sodicity Using Calcium Salt Incorporated Hydrogels**. *Advanced Materials Research*, 93-94:350-353
4. Booth, S., Powell, J., Ampt, P., Wildman, H., Aiken, J. and Russell, J. 2008. **The Penrith Lakes Natural Heritage and Biodiversity Conservation Master Plan - Re-establishing and sustaining four Cumberland Plain Endangered Ecological Communities**. *Australasian Plant Conservation*, Volume 16 Number 4, March - May 2008.
5. Attwater, R., Aiken, J., Beveridge, G., Booth, S. C. A., Derry, C., Shams, R., and Stewart, J., 2006. **An adaptive systems toolkit for managing the Hawkesbury Water Recycling Scheme**. *Desalination* 188: 21-30.

Publications, Conference (Coal Ash)

1. Aiken J.T. and Heidrich C.R., 2013. **"Regulatory implications low pH coal combustion products Australian perspective"**. Utilization III, World of Coal Ash Conference, April 22-25, Lexington, Kentucky <http://energy.caer.uky.edu/AshSymposium/AshLibraryAgenda.asp#2013>
2. Aiken J.T. and Heidrich C.R., 2012. **"Coal combustion products: Assessment using acid sulfate soil methods"**, Soils and Infrastructure Developments – Oral Presentation, Joint SSA and NZSSS Soil Science Conference, Soil solutions for diverse landscapes, Wrest Point Hotel and Convention Centre, Hobart, Tasmania 2-7 December 2012. 1:31
3. Aiken J.T., 2012. **"Promise of developing coal combustion products (CCPs) in soil amendments"**, Soils and Infrastructure Developments, Presented Poster Presentation, Joint SSA and NZSSS Soil Science Conference, Soil solutions for diverse landscapes, Wrest Point Hotel and Convention Centre, Hobart, Tasmania 2-7 December 2012: 1: 42

Industry Magazine

1. Aiken, J.T., 2010. **"Coal Ash for Australian Agriculture – Developing the Environmental Management Process"**. Australasian Power Technologies (APT) Publications Pty Ltd, Brisbane, Australia, in *Energy Generation*, 2nd Quarter April-June, pp 12-14.

Theses (2)

1. Aiken J.T. 2006. **"A soil microbial response to urban wastewater application – bacterial communities and soil salinity"**. PhD Thesis. The University of Western Sydney. <http://adt.caul.edu.au/>
2. Aiken J.T., 1999. **"A terminal restriction fragment length polymorphism assay for characterising agricultural soil rhizosphere bacteria"**. Honours thesis, The University of Western Sydney.