

# Nathan Heinrich

BE (Agr), 1<sup>ST</sup> Hons, CID, MIEAust

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Since November 2003, Nathan has worked full time for Feedlot Services Australia Pty Ltd ((T/A FSA Consulting).

Nathan Heinrich is an Agricultural Engineer and is predominantly involved with water resource and irrigation engineering.

Nathan engages in water infrastructure design and specification, water licensing and regulation, water infrastructure investigation, assessment and certification, storage monitoring, storage water loss assessment, hydrological modelling and irrigation system performance assessment. Nathan extensively consults with irrigators, industry bodies and government representatives for various projects. He is also involved in water related research, with noted research works into seepage and evaporation from on-farm water storages and estimating land surface diversion (overland flow) for irrigation. Nathan is also involved in the technical aspects related to this work, with on-going involvement in site inspection, site surveying, installation, data management and maintenance of sensing and data logging equipment and preparation of detailed CAD plans and figures.



Nathan has worked in the following fields of special competence:

- Irrigation system and farm water supply design, specification and engineering construction supervision
- Irrigation scheme customer consultation, modernisation and rationalisation
- Surface irrigation assessment and optimisation
- Pressurised irrigation system assessment
- Farm water supply assessment
- Farm water supply research (water sources, storage losses)
- Hydrological modelling
- Water storage and feedlot development bulk earthworks calculation
- Referable dam inspections
- Preparation of dam failure impact assessments
- Pump capacity assessments
- Water licensing and regulation (professional and technical advice and reporting)
- Certification of irrigation properties (overland flow)
- Preparation of agricultural viability assessments
- Wastewater evaporation basin modelling and design
- Water budgeting of irrigation water supplies
- Professional advice (water resource engineering)
- Preparation of supporting information for funding applications
- Preparation of various types of water management plans
- Surveys (RTK GPS, EM31 and EM38)
- Metering installations, data management, maintenance and troubleshooting (storage monitoring, automatic weather stations).