

Viridis Consultants Pty Ltd

Capability Statement



Company Details

Company Name	Viridis Consultants Pty Ltd (Viridis)
Location	17/23 Breene Place, Morningside Qld 4171
Postal address	PO Box 131, Bulimba QLD 4171
Main contact	James Howey, Director
Principal	James Howey, Director
Phone	1300 799 310
E-mail	info@viridis.net.au
Year established	2008
Web address	www.viridis.net.au
ABN	49 129 185 271
Professional Indemnity Insurance	CGU Insurance Ltd, \$10m
Public Liability Insurance	GIO General Ltd, \$20m
Workers' Compensation	WCA090106378



Core Competencies

Viridis is a multi-disciplinary consultancy and has provided engineering and scientific services to water utilities, government and private enterprise for over 10 years.

Our area of expertise is to provide cost effective and practical solutions for municipal water (drinking, recycled & waste) and the environment. We develop, implement and audit risk management frameworks, linking corporate risk to service provision. Our engineers and scientists will identify, in a participatory manner, organisational and process risk and optimise business systems and operational processes to meet service standards and regulatory requirements.

The services that we offer include, but are not limited to, the following:

Management Systems

- strategic business improvement
- drinking water quality management plans (DWQMP)
- recycled water management plans (RWMP)
- ISO 9001- Quality Management Systems
- ISO 14001- Environmental Management Systems
- asset management
- HACCP
- ISO 22000 - Food Safety Systems
- development of forms and procedures
- system assessment and process improvement
- data analysis and statistics

Environmental

- site based management plans
- waste management plans
- water and sewage treatment plant licensing and compliance
- environmental risk assessments and evaluations
- construction environmental management plans (CEMP)

Audits

- DWQMP & RWMP
- asset management systems
- ISO 9001- Quality Management Systems
- ISO 14001- Environmental Management Systems
- HACCP
- ISO 22000 - Food Safety Systems
- Environment Protection and Biodiversity Conservation Act (EPBC)

Water Treatment & Engineering

- process design
- treatment assessment and optimisation
- health based target (HBT) assessments
- project management
- condition assessment
- maintenance planning
- operator support and training

Key Staff

Our most important assets are our people. We actively encourage our consultants to develop their skills and knowledge.

Projects are delivered as a team to provide contingency and internal review.

Viridis has also been very successful in managing teams of sub-consultants, where additional skills or capacity is required to deliver projects.



James Howey MSc BSc– Director

James has 20 years private and public experience in water, environment and asset management and over the last 10 years James has built Viridis Consultants organically to be one of the best regarded water quality consultancies in Australia.

James was one of the first certified water quality auditors in Australia, building on several years of environmental auditing.

- ✔ Exemplar Global Lead Drinking & Recycled Water QMS Auditor
- ✔ Exemplar Global Skills Assessor
- ✔ Exemplar Global Associate Environmental Auditor.

James specialises in management systems, risk assessment and facilitation. Although, he has a broad base of experience which he can draw on to provide clients with invaluable insights.



Tasleem Hasan MSc BSc – Workgroup Manager – Drinking Water

Tasleem has over 15 years of experience in drinking water quality management, including regulation, process improvement and monitoring. He has been working extensively in regional areas of Australia over the past several years, identifying and discussing key water supply issues and providing advice on potential improvements and regulatory compliance. These not only include engineering solutions but also establishing longer-term management systems for continued quality of service.

Tasleem is a drinking water lead auditor (Exemplar Global), with a background in water regulation with the Queensland Government.

Tasleem has also worked extensively in a number of Pacific Island developing countries on various high-profile WASH projects.



**Karen Pither BSc – Workgroup Manager
– Recycled Water and Environment**

Karen has over 15 years experience in water, wastewater and environmental management. Karen is an experienced project manager, specialising in the development, implementation and audit of management systems, including drinking water, recycled water and environmental management systems, site-based management plans and risk based management plans.

Karen is an Exemplar Global recycled and drinking water lead auditor, with a background in recycled water regulation with the Queensland Government. She is a specialist in recycled water risk assessment and exposure assessments for recycled water reuse.

Karen's environmental experience includes the development of environmental management systems, management plans and risk assessment and monitoring. Ecological and environmental consultancy including vegetation, bushfire and contaminated land.



Glen Luscombe BEng (Mechanical & Space) – Process Engineer

Glen is a mechanically trained engineer and project manager with a decade of experience in leading high quality solutions for a diverse range of problems, including leading design, construction and commissioning projects in water treatment and commercial construction, as well as high volume and low-volume manufacturing environments. He uses his skills in project management, technical design, communication and collaboration with local and international stakeholders to deliver meaningful results for his project's stakeholders.

- 🌐 RPEQ - Registered Professional Engineer of Queensland (Mechanical, Management)
- 🌐 CPEng – Chartered Engineer (Mechanical, Leadership and Management)
- 🌐 NER – National Engineering Register (Mechanical, Leadership and Management)
- 🌐 PMP-PMI – Project Management Professional
- 🌐 IntPE (Aus) – APEC Engineer (Mechanical, Leadership and Management)

Our Mission and Values

Viridis' mission is **to provide expert scientific and engineering support to clients to enhance business performance, public health and environmental values.**

We strive to deliver on this mission with everything that we do. This is reflected in our core values that make Viridis who we are and motivates our personnel. These core values are what our culture is derived from and are:

Integrity

Our over-riding focus is on achieving successful long-lasting relationships with clients that are built on a strong foundation of understanding, trust and credibility.

Respect

We share information appropriately and responsibly. We listen and work collaboratively in the best interests of Viridis and its clients. We believe in straight dealing in all matters. We believe in treating all people and places with respect and show empathy towards others.

Quality

We demand service excellence through understanding client needs and drivers. We deliver to a high standard so our clients receive a quality product. We strive for improvement and never stop trying to better ourselves.

Fulfilment

We are committed to ensuring that skills, knowledge and talent are proactively identified and developed. We enjoy our successes and take pride in our work.



Performance and Experience

Viridis has an excellent record in delivering projects on time and on budget. This is reflected by a high-level of customer satisfaction, which consistently exceeds expectations. This is reflected by our high rate of repeat work and referrals, currently at over 90%.

Our base is in Brisbane Australia and we offer our services nationally and internationally. Our most prominent markets are Queensland, New South Wales and Victoria and our clients include state regulators, state-owned corporations, water utilities, councils and private enterprise.

Water Treatment & Engineering

Mareeba Shire Council

Viridis undertook a Health-Based Targets (HBT) assessment of Mareeba Shire Council's drinking water supply schemes using the Manual for the application of *Health-Based Targets for Drinking Water Safety* (2015) published by Water Services Association of Australia.

This assessment included:

- ✔ source water assessment
- ✔ water treatment assessment
- ✔ water safety assessment
- ✔ water safety improvement plan.

The project was able to identify opportunities for improvement by optimising existing infrastructure and it also identified future capital works. A consultative and inclusive approach ensured that priorities and timeframes were harmonised with capital expenditure plans and operational teams. Thus, ensuring an efficient and justifiable approach to operational and capital investment in drinking water supply.

Department of Housing and Public Works

Viridis undertook a condition assessment of an existing drinking water treatment plant for a facility managed by the Department of Housing and Public Works. The project required a condition assessment of the physical infrastructure and an assessment of the treatment plant's ability to produce safe drinking water.

This project included:

- ✔ assessment of source water intake infrastructure and catchment risks.
- ✔ water treatment plant Assessment, including infrastructure condition and water quality/safety.
- ✔ performance based specification for improvements/upgrades, including approx. costs.
- ✔ general recommendations and Improvements.

The project was able to identify feasible options or solutions for improvements to the Treatment Plant, allowing the department to make an informed decision on operational and capital expenditure requirements.

WaterSecure Innovations

Viridis was engaged to co-author the validation protocols prepared as part of the national validation framework, WaterVal. Viridis was also engaged to undertake an independent audit of benchmarking projects, carried out to test the protocols.

Management Systems

Seqwater

Viridis undertook the majority of risk assessments for bulk water supply used to under-pin the DWQMPs and RWQMPs, including:

- ✔ Western Corridor recycled water scheme
- ✔ most SEQ water treatment plants (approx. 40)
- ✔ bulk distribution network
- ✔ Tugun Desalination Plant
- ✔ SEQ Water Grid (operation of connected assets).

Viridis was also engaged to review and revise Seqwater's EMS, which is certified to ISO 14001. Viridis also assisted Seqwater in the development of an asset management system, compliant with the new ISO 55000 standard.

Viridis assisted Seqwater in a review of the drinking water monitoring program, including statistical analysis of a range of factors including parameters, frequencies and locations to rationalise and improve the plan, and reflect the best practice in risk management.

New South Wales Ministry of Health

Viridis has been engaged by the New South Wales Ministry of Health to develop and/or implement drinking water management systems (DWMS) for a number of regional water utilities, including DWMS reviews and updates. DWMS development and/or support projects that have been delivered so far include:

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| ✔ Bellingen Shire Council | ✔ Carrathool Shire Council |
| ✔ Tenterfield Shire Council | ✔ Murray River Council |
| ✔ Inverell Shire Council | ✔ Queanbeyan Palerang Regional Council |
| ✔ Singleton Council | ✔ Yass Valley Council |
| ✔ Essential Water, Broken Hill | ✔ Edward River Council |
| ✔ Tibooburra Water | ✔ Snowy Monaro Regional Council |
| ✔ Jenolan Caves Trust | ✔ Lachlan Shire Council |
| ✔ Armidale Dumaresq Council | ✔ Nambucca Shire Council |
| ✔ Parkes Shire Council | ✔ Central Coast Council |
| ✔ Walcha Council | ✔ Murumbidgee Council |
| ✔ Liverpool Plains Shire Council | ✔ Snowy Valleys Council |
| ✔ Gwydir Shire Council | ✔ Tumbarumba Shire Council |
| ✔ Kyogle Council | |

Victorian Department of Health and Human Services (DHHS)

Viridis was engaged by the DHHS to develop a quality management system for the regulation of drinking water in Victoria. The project involved liaison with internal and external stakeholders, facilitation of workshops, development and documentation of an operational framework including standard operating procedures to ensure consistent application of the regulatory framework across the state

Unitywater

Unitywater engaged Viridis to undertake water quality risk analysis for selected schemes to assist strengthen their drinking water quality risk assessments. Detailed water quality data analysis was undertaken and investigated as part of the project. Viridis assisted Unitywater to undertake pre-certification activities in order to achieve ISO 22000 certification. This included the establishment of the HACCP Plan, comprehensive review of the ISO 22000 certification criteria, identifying where improvements were likely, and completion of required documentation critical to achieve certification.

Sydney Water

Viridis reviewed and updated nine of Sydney Water's recycled water quality management plans, including system analysis, monitoring plans and improvement plans.

Viridis assisted Sydney Water in a review of the drinking water monitoring program, including statistical analysis of a range of factors including parameters, frequencies and locations to rationalise and improve the plan, and reflect the best practice in risk management.

Queensland Urban Utilities (QUU)

Viridis audited QUU's recycled water schemes and facilitated a recycled water risk assessment to develop a prioritised action plan for the implementation of a recycled water management framework and continuous improvement.

Viridis undertook the regulatory review of the QUU DWQMP and the Gatton RWQMP and subsequent updates to the documentation for submission to the regulator.

Queensland Regional Councils

Viridis has developed and/or reviewed DWQMPs for a number of regional water service providers in Queensland, including:

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| ✔ Carpentaria Shire Council | ✔ Kowanyama Aboriginal Shire Council |
| ✔ Cloncurry Shire Council | ✔ Napranum Aboriginal Shire Council |
| ✔ Mount Isa City Council | ✔ Central Highlands Regional Council |
| ✔ Mount Isa Water Board | |

LinkWater (now Seqwater)

LinkWater's ISO 22000 system was audited and gained certification. This was an outstanding achievement and unique to the sector in Queensland considering the framework encompasses the whole organisation. The system, which was designed by Viridis, won an AWA award – best program.

Department of Energy and Water Supply (DEWS) (now the Department of Natural Resources, Mines and Energy)

Viridis was engaged by the Queensland Water Supply Regulator to prepare and deliver a training package on the preparation of Drinking Water Quality Management Plans for small and medium drinking water service providers across Queensland.

Viridis also assisted DEWS in the development and review of its regulatory guidelines including, Recycled Water Management Plan and Validation Guidelines and Audit, Public and Annual Reporting Guidelines, including an implementation plan for regulatory compliance.

Audits

IPART

Viridis has been engaged multiple times to undertake annual licence plan audits for the regulated public water utilities since 2010, including Hunter Water, Sydney Water and WaterNSW (also the Sydney Catchment Authority, now part of WaterNSW).

Coliban Water

Viridis undertook the pre-audit of the DWQMP against the required scope and delivered the audit report, with opportunities for improvement, which was utilised to prepare for the regulatory audit.

GWMWater

Viridis undertook the audit of the risk management plans (21 plans in total) against the required scope and delivered the audit report, with opportunities for improvement, which was accepted by GWMWater.

Barwon Water

The Northern Water Plant required an audit following one year of operation, in accordance with licence conditions. Viridis conducted an audit of the Health and Environmental Management Plan and Recycled Water Quality Management Plan to fulfil this condition.

Seqwater

Seqwater is Scheme Manager for the Western Corridor Recycled Water Scheme. As such they are required to submit internal audit reports to the regulator. Viridis was engaged to undertake an audit of one of the scheme provider RWMPs.

Viridis also undertook the regular audit of Seqwater's DWQMP.

Queensland Urban Utilities

Recently, Viridis undertook the regular internal audit and external regulatory audit for the Gatton RWMP. In an earlier project, Viridis was engaged by QUU to audit the conditions of the approval, as required by the regulator. The approval was under the Commonwealth Environmental Protection and Biodiversity Conservation Act (1999) for one its sewage treatment plants located adjacent to a RAMSAR wetland.

Viridis was engaged by QUU to undertake the first regulatory review of the DWQMP. Viridis has also been re-engaged to undertake a water quality investigation on data from their verification monitoring program.

Ballina Shire Council

Viridis has conducted a pre-operational Recycled Water Management Plan audits for both the Ballina and Lennox Heads recycled water schemes.

QLD Water Service Providers

Viridis has undertaken regulatory audits, in Queensland, for around 25 water service providers. Recent regulatory audits undertaken include:

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| ✔ Fraser Coast Regional Council | ✔ Redland Water |
| ✔ Downs and Surat Basin Organisation of Councils (Western Downs, Goondiwindi, Toowoomba, Maranoa, Balonne and Southern Downs Regional Councils) | ✔ Seqwater |
| ✔ Far North Qld Region Organisation of Councils (Cairns Regional, Hinchinbrook, Cassowary Coast, Cooktown, Douglas, Etheridge, Hope Vale, Mareeba, Tablelands, Yarrabah and Croydon Councils) | ✔ Gladstone Area Water Board |
| ✔ Gold Coast Water | ✔ Bunderberg Regional Council |
| ✔ Logan City Council | ✔ Queensland Urban Utilities |
| ✔ Livingstone Shire Council | ✔ Carpentaria Shire Council |
| | ✔ Burke Shire Council |
| | ✔ Isaac Regional Council |
| | ✔ Gympie Regional Council |
| | ✔ North Burnett Regional Council |
| | ✔ Cherbourg Aboriginal Shire Council |
| | ✔ Doomadgee Aboriginal Shire Council |
| | ✔ Mornington Shire Council |
| | ✔ Torres Strait Island Regional Council |

In addition, Viridis has also undertaken a DWQMP spot audits for the Queensland and Victorian water regulators.

Environmental

Meat and Livestock Australia

Viridis was engaged to investigate the options for the reuse of abattoir process water, including development of monitoring programs, desktop QMRA and reuse options.

Teys Australia

Teys is the second largest meat processor and exporter in Australia. Viridis has been engaged to undertake a risk assessment of its wastewater management system at its Biloela plant, environmental audit at the Wagga Wagga Plant and assist in providing expert advice on compliance, environmental and public health management.

Brisbane City Council

Brisbane City Council, City Projects Office has a certified EMS. Viridis was engaged to assist in closing out a number of audit non-conformances. Among these was a complete revision of the aspects and impacts register.

Quality Management System

The quality of the services that we deliver is of primary importance. To reflect this, Viridis has a third-part certified quality management system to ISO 9001:2015. This system incorporates our environmental, health and safety and risk management.

Projects

All of our projects are delivered in accordance with our Project Management Manual, which includes:

- ✔ project risk management
- ✔ project health and safety plans
- ✔ technical reviews and hold points
- ✔ time and cost management
- ✔ conflict resolution
- ✔ deliverable quality.

Safety

Viridis acknowledges its responsibility to workplace health and safety management and complies with all relevant legislation. We are committed to providing and maintaining a safe and healthy working environment for our employees and to ensure the safety of others affected by our operations. All projects have a health and safety review and a project specific plan is developed where required.

Viridis has never had a lost time injury!

Environment

Our environmental policy shows our commitment to the environment. Some of the ways that we try to minimise our impact on the environment includes flexible working arrangements and video conferencing, participating in initiatives such as Clean up Australia Day and Plant a Tree Day and electronic file management eliminating the need for paper.

Continuous Improvement and Innovation

Viridis is committed to providing clients with a value for money, high-quality product. Through understanding client drivers and continual professional development, we aim to always provide the best possible advice. With this in mind we:

- ✔ actively and professionally manage our projects and place emphasis on the time, cost, quality and business relationship aspects of our client's needs
- ✔ seek opportunities to add value to our client's businesses by providing specialist advice and direction
- ✔ operate a continuous learning environment
- ✔ seek feedback on all our projects to see how we can improve.

How We Do Business

Engagement

Viridis' standard contract is in accordance with the *Australian Standard for General Conditions of Contract for Consultants* (AS 4122-2010). We may also accept client contract terms and conditions, upon review.

We are also on a number of procurement panels, including:

- ✔ Local Buy – Engineering and Environmental - BUS262
- ✔ Vendor Panel:
 - Engineer, Research, Tech Services
 - Environmental & Heritage Services
 - Management Advisory Services
- ✔ Queensland Government - Natural Resources, Sciences and Engineering - DSITIASD01
- ✔ NSW Government - Prequalification Scheme: Performance and Management Services - SCM0005

Viridis offers services on a project basis but can also offer **Support Services** under a supply contract. We can take the pressure off operational staff by taking care of the regulated requirements of a DWQMP or RWMP, such as reviews, data recording and analysis, annual reports, operating procedure development, training, audits etc. All Support Service supply contracts are individually tailored to client needs.

Relationships and Communication

Viridis is known for successful project delivery. We develop close working relationships with clients and interact proactively with organisations and government agencies. Our team demonstrates high communication standards by providing regular project updates, ensuring that all issues raised are resolved in a consistent and logical manner.

Clients can be confident in our commitment to price and timeframes. All our projects are fully costed at the start, variations are only considered where a client changes the project scope.

Responsiveness

We are a small consultancy, which allows us to be responsive to the needs of our clients. Our project management style is collaborative, and we pride ourselves on being available to our clients and proactive in achieving results. Our systems have been established around the provision of personalised service and we are able to be flexible and take action when required.

Memberships

Viridis is a corporate member of Water Research Australia (WaterRA) and Queensland Water Directorate.

Viridis staff are members of the Australian Water Association and Engineers Australia.



www.viridis.net.au

