



Filtration is a key process in the production of safe drinking water. Degradation in the performance of media, hydraulic or pneumatic systems may all contribute to ineffective filtration performance. To ensure reliable performance, an understanding of the condition of the filter is required to detect impending failure and enable timely action.

Detailed assessment of filter media through the use of core sampling can provide valuable insight into media condition. Issues caused by incorrect layering, depth, media grade, mudballs and inclusions can all be identified with appropriate core sampling. Detailed filter media analysis can also provide information on remaining media life, ensuring that media is replaced when required, rather than on a fixed schedule.

Condition and operational assessment of filters will identify other causes of poorly performing filters, including issues with pumps, blowers, air scour nozzles or lateral construction.

Filter Media Condition

- Core Sampling
- Depth Measurements
- Bed Inspections
- Detailed Media Analysis
- Remaining Life Estimation
- Condition Assessment Reports

Filter Operation and Condition

- Backwash Assessment
- Identification of Blocked and Broken Air Scour Nozzles
- Pump and Blower Condition Assessment
- Remaining Life Estimation
- Condition Assessment Reports

Remediation Programs

- Maintenance Planning and Specifications
- Operational Guidance and Procedures
- Management of Renewal Projects

Supporting Programs

- Health-Based Targets Assessment
- Filtration and Backwash Optimisation
- Capital Upgrade/Renewal Planning
- Detailed Design and Specification
- Commissioning Support

Our Experience:

- Process and Plant Condition Assessment, including performance-based specifications, for four water treatment facilities in regional Queensland – Building and Asset Services, Department of Housing and Public Works
- Health-Based Target Assessment – Mareeba Shire Council
- Water and Wastewater Manager Secondment – Department of Housing and Public Works
- Water and Wastewater Engineer Secondment – Southern Down Regional Council
- Operator Training – Aussie World
- Our staff have experience in design, commissioning and asset lifecycle management of water treatment systems, including filtration, chemical treatment and hydraulics system design.

Viridis Consultants has been consulting to the water industry for 10 years. We work with water utilities, local councils, regulators and private water utilities. Our team of engineers and scientist can undertake detailed assessment of the filter and filter media. This information can be an essential tool to guide maintenance, optimisation and renewal projects.

Process Engineer

Glen Luscombe *BE(Mech) CPEng RPEQ NER PMP-PMI MIEAust IntPE* – +61 401 901 785

With seven years' experience in the design, construction and commissioning of process plant, Glen is an experienced project manager specialising in the specification, implementation and assessment of filtration and chemical treatment plant.

As an experienced engineer across diverse environments including water treatment, commercial construction and manufacturing, Glen has extensive involvement in risk-sensitive design, design reliability, total cost of ownership, design for construction, commissioning and validation.

Glen also has experience in asset management, including condition assessment, risk assessment and compliance assessment in a range of filtration and chemical treatment environments including water treatment plants, wastewater treatment plants and recreational aquatic environments.

Services

- Filter Media Core Sampling
- Filter Media Detailed Analysis
- Filter Operation Assessment
- Condition Assessment
- Remaining Life Estimation
- Health Based Treatment Targets Assessment
- Maintenance Planning
- Capital Upgrade Planning
- Project Management
- Staff Training



If you would like further information or think that Viridis can help you, please contact us. We are always happy to assist.

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