TECHNICAL CAPABILITY

Water & Wastewater Capability Statement

Integrated treatment pathways for water quality, wastewater performance, reuse potential and practical project delivery.

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Capability Overview

GSEL supports water and wastewater opportunities by aligning project need with relevant treatment pathways, partner-enabled technical capability, modular systems, media/flocculants and engineering optimisation support. The focus is practical: define the problem, review available analysis, identify the right route and structure credible next steps.

Application Areas

Water treatment Improving source water, process water and treated-water quality across industrial, commercial and municipal applications.	**Desalination** Specialist pathways for saline, brackish or seawater sources where usable water is required for process, utility or supply applications.
Ultrafiltration Membrane-based filtration for solids reduction, polishing, reuse support and high-quality water treatment.	**Advanced oxidation & disinfection** High-performance treatment options for complex contaminants, microbial control and water quality improvement.
Electrocoagulation Advanced electrocoagulation pathways for difficult industrial water and wastewater streams where conventional treatment may be insufficient.	**Wastewater reuse & recovery** Structured reuse and recovery approaches that support resilience, resource efficiency and stronger operational value.

Sector Relevance

Industrial wastewater Complex effluents, colour, solids, COD/BOD, metals, process residues and operational reliability challenges.	**Municipal & utilities** Water quality, decentralised treatment, reuse, polishing and infrastructure support.
Mining & mine water Suspended solids, metals, salinity, reuse, environmental compliance and treatment optimisation.	**Oil & gas / produced water** Produced water, oil and grease, solids, reuse/discharge review and phased pilot-to-rollout pathways.

Treatment & Delivery Support

Stage	Purpose	Typical Outputs
Assessment	Review project objectives, water source, existing process, constraints and available analysis.	Information request, data review and treatment objective definition.
Technical pathway	Identify relevant treatment options such as EC, filtration, UF, RO/NF, AOP, media/flocculants, biological treatment or modular systems.	Preliminary treatment pathway and information gaps.
Pilot / treatability	Where needed, structure lab validation, pilot guidance or comparative testing before final proposal.	Treatability plan, pilot scope or validation recommendation.
Proposal route	Translate the selected pathway into a commercially structured next step.	Technical/commercial proposal, meeting, project roadmap or implementation support route.

Information Required Before Technical Review

- Project country, site location and sector.
- Water or wastewater type: source water, process water, industrial wastewater, produced water, mine water, seawater/brackish water or municipal stream.
- Flow rate and operating profile: m3/day, m3/hour, barrels/day or litres/hour.
- Current treatment process, if any.
- Raw water/wastewater analysis including pH, TSS, turbidity, COD, BOD, conductivity/TDS, oil & grease, metals, nutrients, microbiology and relevant site-specific parameters.
- Target outcome: discharge compliance, reuse, drinking/process water, cost reduction, capacity increase or operational reliability.
- Available documents: laboratory report, tender document, process description, drawings, photos, site constraints or performance targets.

Important Technical Note

Water and wastewater performance depends on actual analysis, site conditions, operating profile, treatment objectives, local regulation and integration constraints. GSEL should not issue final technical recommendations, pricing or performance commitments until complete project information has been reviewed by the appropriate technical team.

Recommended next step: Submit Water Project Details - Submit details via the website or contact GoGreen@gsel.co.uk | +44 203 488 0222.