

AquaCon Engineering plc services are supported by the Czech companies establishing joint venture Aquatest/SG Geotechnika a.s. and Ircon plc

Water

Water Resources Investigation and Management and Water Works Design, Sanitation and Hygiene

- regional hydrogeological investigations and groundwater resources assessments for water master plans, basin studies, regional and local development plans
- groundwater resource investigations and supervision of wells for potable, mineral and thermal water supplies
- surface water hydrometry, including construction of river gauging stations and river basin hydrological balancing
- hydrogeological conceptual models, mathematical modelling and water resource monitoring
- regional and local flood prevention models and plans
- water management applications of remote sensing and GIS analysis (water well siting)

Water works design

- design of water supply systems, supervision of their construction and proposals for water resources resource protection zones and sanitation
- revitalization of wetlands, watercourses, lakes and reservoirs and biomonitoring
- design and supervision of construction of small dams and ponds, flood protection structures, irrigation, water supply and drinking water treatment plans
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Sanitation, Hygiene and Flood Protection

- urban and rural sanitation
- construction, modernization of wastewater collection and treatment systems
- regional and local flood prevention models and plants

Irrigation

- study (groundwater surface water availability) and design for irrigation projects
- design and construction of canals, diversion weirs, various distribution systems for irrigation
- tailoring small and medium scale irrigation systems (solar energy, wind, generator)

Geology, Engineering geology and Geotechnics

Geological, Engineering Geology Investigation and Geotechnics

- comprehensive geotechnical services of design, construction and operation for all types of engineering projects, including professional geotechnical and site supervision
- geotechnical design, final geotechnical supervision and geotechnical modelling of complex engineering projects
- investigation for quarries for construction design of landfills and landfill monitoring materials for housing and infrastructure (calculation of construction material resources) and management of quarries

- design and supervision of complex underground construction projects, including metro lines, collectors and pilot tunnels
- unique rockfall hazard rating, an immediate call-out service to emergency situations and rock slides and we monitor the behavior of problematic slopes
- investigation for preparation and implementation of significant road and railways infrastructure

Geophysical Measurements / Geophysical Well Logging

- surface measurements for well siting using VES and other techniques
- measurements and interpretation of well logging and TV inspection

Remediation

Remedial investigation

- feasibility studies for contaminated soil and / or groundwater remediation and reclamation of devastated areas
- supervision of remedial, reclamation and rehabilitation projects

Contaminated Land Remediation & Landfill / Devastated Area Reclamation

- physical, chemical and biological technologies of remediation of soil and groundwater
- forest / agricultural rehabilitation and reclamation of catchments, river courses and dam habitats
- monitoring of contamination spreading and attenuation processes and contaminant transport and degradation modelling

Waste management

Waste Recycling and Solid Waste Management

- solid waste management planning and consulting
- design and supply of recycling lines (WEEE, TV and PC monitors and screens, tires, rubber, fossil fuel residues and plastic bottles)

Waste Water Treatment Technologies Design and Operation

- design and development of technology for waste treatment, and industrial and mine waste water treatment plants
- planning for minimization and reuse of wastewater

Environment

Environmental consultancy and Social Economic Consulting Services and Monitoring

- pre-acquisition environmental audits and environmental compliance (Phase I) audits and contaminant investigation (Environmental audits Phase II)
- human and environmental risk analysis

- environmental impact assessment (EIA) and environmental management systems implementation (EMAS, ISO 14 000)

Social Economic Consultancy and Risk Assessment

- feasibility, socio-economic and financial studies of water and environmental projects
- emergency plans and response programmes design for companies and district authorities (IPPC)
- expert opinion and assistance in preparation of environmental and water management legislation and guidelines

Research and Training

- transfer of know-how and training in remote sensing, regional hydrogeology, groundwater monitoring, hydrological measurements, GIS and well logging methods
- remedial and waste water treatment technologies using nano-technology, bio-active materials,
- development modular remediation and waste water treatment systems
- development of information systems in water management and remedial systems