

Water & Wastewater Services for Industry

Innovative Approaches to New Challenges

ALTECH is a leader in applying proven technical knowledge and effective problem-solving for a broad range of industrial clients.

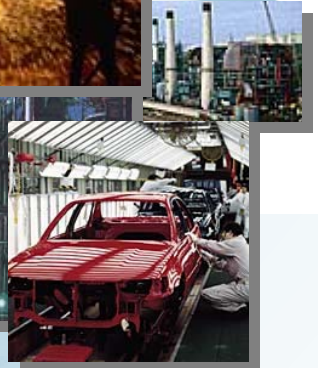
Services

- Optimization of Water and Wastewater Systems
- Turnkey Treatment Design and Installation
- Pilot Plant and Full-scale Testing
- Remote Monitoring and Control
- Permitting and Approvals
- Procedure Assessment and Process Streamlining
- Environmental Impact Studies
- Environmental Management Systems



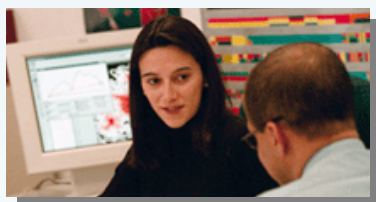
Serving the Manufacturing, Resource and Service Industries

- Food & Beverage
- Automotive
- Polymers
- Electronics
- Chemical & Petrochemical
- Mining & Metals Processing
- Power Generation
- Pulp & Paper



Benefits

- Reduce Operating Costs
- Eliminate Surcharges
- Meet Environmental Regulations
- Implement Innovative Solutions
- Improve Treatment Performance



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WATER AND WASTEWATER SERVICES

ALTECH Environmental Consulting Ltd. strives to meet the day-to-day operating needs of operations management with creative, cost effective solutions. ALTECH engineers provide strong and comprehensive technical solutions but it is our practical business perspective is what sets us apart. ALTECH has the experience to provide solutions right from water supply through to wastewater discharge.

Water Treatment and Drinking Water Protection

- Assessment of compliance with regulatory Drinking Water Standards
- Assessment of water treatment procedures and physical facilities for compliance
- Troubleshooting and optimization of chlorination systems
- Evaluation of Process water sufficiency requirements
- Hydrogeological evaluation of ground water supply and quality
- Installation of water supply wells including well heads and pumps
- Turnkey treatment system for potable water design and installation
- Engineering Evaluation Reports and Water System Certification Documents
- Preparation of equipment specifications and bid packages
- Turnkey construction and installation of Systems

Process Water

- Assessment of current and future Process water needs
- Identification and evaluation recycling and water minimization opportunities
- Assessment of current and future heat load and flow needs for cooling water
- Design and/or troubleshooting of problems with capacity and efficiency for both cooling towers and chillers
- Production of conceptual and/or detailed designs and specifications

Industrial Wastewater

- Completion of Permits for Direct Discharge including assimilative capacity
- Water and wastewater predictive modelling tools including mixing zone models as well as treatment system operating performance optimization models
- Negotiations with municipalities for compliance and/or sewer surcharges
- Evaluation and/or Optimization existing wastewater treatment systems
- Minimization of water use and waste generation
- Evaluation of wastewater composition, flow, and variability
- Evaluation of treatment alternatives and development of conceptual designs
- Production of detailed designs and specifications
- Provision of Construction and Project Management
- Design and operation of flow through pilot testing facilities

- Design and installation of remote monitoring technologies
- System Start up and Operator Training

Examples of Project Performance:

- Characterization of wastewater from Confectionary resulting in separation of streams and implementation of cost effective 60,000 l/day treatment system using membranes.
- Wastewater characterization/equipment installation for Snack Food resulting in water recycling saving \$125,000 in water costs, \$100,000 in revenue for sale of recovered starch, and a streamlined water treatment system costing 60% less than expected.
- Completed characterization of tar process wastewater including cyanide, sulfides, ammonia, COD/BOD and other tar related parameters. Conducted pilot testing to demonstrate multistage treatment system to achieve compliance.
- Close-looped a 70,000 g/d wastewater at major Photofinisher including recycling of rinse waters and treatment of effluent using membranes and vacuum distillation.
- Conducted contaminant characterization of Brewery wastewater, minimizing water usage by 40% of rinse water, reducing cost and size of treatment system.
- Conducted long term, flow through pilot test with Membrane Bioreactor on brewery effluent achieving 98.9% reduction in BOD.
- Designed/installed Dechlorination facilities in the Power, Petrochemical, Refining industries to remove chlorine prior to discharge to protect surface ecosystems.
- Completed more than 30 Certificate of Approval and Permits for direct discharge for the Automotive, Petrochemical, Food, Inorganic, and Pulp and Paper industry sectors including assimilative capacity and environmental impact reports.
- Conducted water and wastewater treatment predictive modelling, including mixing zone models, as well as, treatment system operating performance optimization.
- Completed water reduction, water use optimization, and pollution prevention studies in numerous industrial sectors resulting in cost effective wastewater management strategies designed for compliance and/or cost savings.
- Successfully completed large scale pilot treatment of Winery effluent with fixed film biological treatment; Metals reduction in Mining by filtering/settling and polishing by ion exchange.
- Designed and installed systems for remote monitoring of water/wastewater data for electronic tracking and troubleshooting facility operation.
- Completed Permit approvals and construction of Storm Pond for metal recycling; Designed/installed membrane system for contaminated Storm Pond at metal recycler; Completed analytical correlation between turbidity and TSS and renegotiated Permit for Storm Pond discharge.
- Large scale pilot plant to study optimal waste loading rates to an aerated biological system in Petrochemical industry.