

# Wetlands Management Services

## From planning through construction and follow-up monitoring programs

Wetlands represent some of the most productive ecosystems on Earth. As transitional environments between terrestrial and aquatic ecosystems, wetlands provide important habitat for plants, fish and wildlife, including many rare and endangered species. Other recognized functions of natural and managed wetlands include:

- Water Storage and Flood Control
- Maintenance of Water Tables for Agriculture
- Ecological Engineering
- Water Purification
- Recreational Opportunities (including fishing, hunting, bird watching, etc.)
- Aesthetics and Quality of Life
- Opportunities for Education and Scientific Research
- Shoreline Stabilization / Erosion Control
- Commercial Food Production
- Livestock Forage Production
- Peat and Forest Production
- Climate Modification



The biologists and wetland ecologists within AMEC have been actively involved in the management of wetland resources at a variety of industrial facilities and hazardous waste sites. Our scientists have developed a detailed understanding of freshwater and coastal wetland systems and have been involved in diverse wetland settings, from forested red-maple swamps to tidal



marshlands. AMEC provides sound, science-based support to our clients that will allow for the appropriate use of wetland resources consistent with local and national regulations.

### Habitat Suitability Mapping

Policy-making and planning for the use and conservation of ecosystems require knowledge of landscape changes over extensive areas. Accurate mapping of ecosystems and on-site measurements of wildlife use and distribution are merged by AMEC's professionals to map habitat suitability. AMEC is fully equipped with modern GIS technology which produces maps to evaluate:

- Wildlife Habitat Suitability Classes
- Concentrations of Wildlife Use
- Area and Location of Disturbance
- Alternative Locations of Development



AMEC offers the following services in support of wetland-related projects for land developers, the oil and gas and mining industrial sectors, municipal, provincial, state and federal governments, and conservation organizations:

- Wetland Delineation, Classification and Mapping
- Biophysical and Hydrological Surveys and Assessments of Wetlands
- Functional Assessment of Wetlands
- Environmental Impact Assessments of Projects Affecting Wetlands
- Recommendations for Project Siting/ Routing and Environmental Protection Planning to Minimize Impacts to Existing Wetlands
- Wetland Restoration, Creation and Enhancement Planning for Waterfowl and Wildlife Habitat
- Evaluation, Siting and Design of Wetlands for Water Quality Improvement and Surface Runoff Retention
- Endangered Species Studies
- Sediment Toxicity Testing
- Presentation of Information to Public Hearings and Technical Seminars
- Contractor Guidance During the Construction Phase
- Design and Implementation of Wetland Monitoring Programs



The proper management of wetlands requires a multidisciplinary approach since many environmental factors (e.g., surface and groundwater hydrology, water quality, climate, soils, vegetation and wildlife) interact in the landscape to create a wetland. The Wetland Resources Group of AMEC is an integrated team of professional environmental biologists, scientists and engineers with the necessary experience and technical expertise to address all aspects of wetland-related projects, from preliminary baseline studies and planning through to construction and follow-up monitoring programs.

By combining landscape and construction engineering with wetland ecology AMEC has developed innovative approaches to wetland restoration with an emphasis on natural recovery and erosion control. We provide cost-effective wetlands-restoration solutions at industrial sites requiring remedial measures without compromising environmental integrity.



For a list of office locations, company contacts and other services refer to:  
[www.amec.com](http://www.amec.com)