Engineered Constructed Treatment Wetlands

Constructed treatment wetlands — lower construction and O&M costs, lower energy usage, and no chemicals needed compared to traditional wastewater treatment methods.

Areas of Expertise
- Feasibility Studies
- Site Identification
- Design
- Planting Recommendations
- Agency Coordination
- Field Layout
- Construction, Oversight & Monitoring
- Grading Plans
- Monitoring Plans
- Post-Construction Monitoring
- Hydrologic Studies

Overview
Sustainable wastewater treatment methods, such as engineered constructed treatment wetlands, are becoming increasingly common as cost-effective technologies due to major advantages over traditional treatment methods. Constructed treatment wetlands replace traditional wastewater treatment technologies such as activated sludge and disinfection that require steel, concrete, chemicals, and electricity. Sustainable wastewater treatment methods can be successfully employed for numerous applications, including: contaminated groundwater treatment, stormwater management, industrial and municipal wastewater treatment, landfill leachate treatment from both municipal and industrial (hazardous) waste landfills, and removal of nutrients, minerals, and solids.

Our Approach
AECOM's scientists and engineers collaborate with our clients to produce results that achieve compliance and create the basis for sustainable wastewater treatment. Our experts combine in depth knowledge of constructed wetland treatment technologies with years of experience helping our clients develop effective wastewater treatment systems that use the most cost-effective, industry best practices.

Our sustainable wastewater treatment approach focuses on several areas that maximize value to our clients:

- Feasibility studies that determine the best treatment methods based on existing conditions, whether it is a sustainable or more traditional technology
- State of the art design methods for optimal treatment design based on existing site conditions
- Flexible and adaptive management approach that remains responsive to project changes
- Compliance-driven focus to obtain wastewater effluent within permit limitations

Areas of Expertise
AECOM's team of professionals has strong credentials and significant experience involving constructed treatment wetlands for projects. Our experience includes all aspects of design, construction management, oversight, and operations/maintenance. Disciplines utilized include environmental engineering, ecology, biology, landscape architecture, hydrology, geology and civil engineering.

Our team has assisted a variety of industries including petroleum, pulp and paper, power, and mining with designing and constructing sustainable wastewater treatment methods to treat process effluents. AECOM has also assisted municipalities, residential and commercial developments, and commercial ventures to utilize sustainable wastewater treatment methods.

Services:

- Feasibility Studies
- Site Identification
- Design
- Planting Recommendations
- Agency Coordination

Key Reference Material
Constructed treatment wetlands have lower capital and operation/maintenance costs than traditional wastewater treatment methods and generally tend to be more aesthetically pleasing. Industries including petroleum, pulp and paper, power, and mining are employing constructed treatment wetlands to treat process effluents. Municipalities, individual homeowners, and small commercial ventures are also currently utilizing constructed treatment wetlands for wastewater treatment.

- Field Layout
- Construction, Oversight & Monitoring
- Grading Plans
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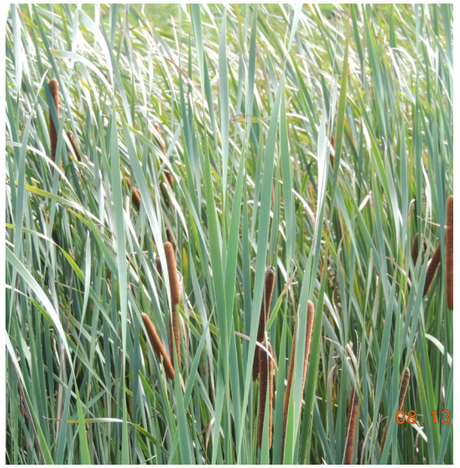
- Hydrologic Studies

Key AECOM Attributes
AECOM's large and renowned constructed wetland staff includes numerous senior environmental Professional Engineers and scientists. Our senior staff has experience designing and constructing treatment wetlands for effective sustainable wastewater and storm water treatment.

AECOM has provided sustainable wastewater treatment services to a wide variety of clients, including petroleum industries, federal agencies, state transportation agencies, municipalities, and colleges and universities.



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