Engineering and Project Management Solutions for the Toughest Industrial Wastewater Challenges

EAD has extensive experience providing engineering, project management, and safety services to help clients with their wastewater improvement projects and can handle many different types of treatment systems for manufacturers in multiple industries. Our team is comprised of PMI certified project management professionals, P.E. licensed engineers, and specialists in hygienic design and sanitation. We have years of experience helping Fortune 500 manufacturers and other commercial businesses manage and improve their wastewater systems infrastructure.

ENGINEERING SYSTEMS DESIGN & PLANNING

We support your facility's wastewater infrastructure to improve efficiencies, safety, and reliability. Reduce costs and improve efficiencies with the expertise of our in-house mechanical, process, electrical, and structural engineering teams. Work with them on a project-to-project basis or embed them full-time at your facility as one of your team.

Process Design Improvements: Identify and implement the best wastewater treatment processes for your facility based on influent characteristics and effluent quality.

Facility Layout Optimization: Reduce energy usage and costs, and improve safety and maintenance accessibility through the strategic design and allocation of your facility wastewater infrastructure.

Hydraulic Modeling: Predict flow behavior, ensure right-size infrastructure, reduce the risk of bottlenecks, and manage risk with expert hydraulic modeling services.

Wastewater Systems Optimization: Improve energy efficiencies, handle sludge and chemicals, and reduce noxious odors.

Wastewater Infrastructure Conditions Assessment & Asset Management: Identify and prioritize the repair and replacement of aging infrastructure.

Techno-Economic Analyses: Identify and evaluate available technologies, perform cost-benefit analyses, and assess capital expenditures against operating costs to ensure profitable technology investments.

AUTOMATION AND CONTROL SYSTEMS DESIGN & TROUBLESHOOTING

We develop customized automation solutions for your wastewater infrastructure to make your systems easier to manage, more efficient, and more effective.

SCADA Systems Design & Implementation: Control and monitor wastewater infrastructure with optimized supervisory control and data acquisition systems to ensure your system is operating efficiently and reduce the risk of system leaks, overflows, and chemical imbalances.

Critical Systems Optimization and Troubleshooting: Optimize and troubleshoot facility control systems to reduce the risk of equipment failures, ensure continuous operations, and handle the unique needs of your facility and wastewater systems.

PROJECT & CONSTRUCTION MANAGEMENT

Let us help you oversee your next wastewater systems upgrade. Our team is adept at managing complex projects with multiple stakeholders and competing priorities. We know how to work within the complex regulatory landscape of the wastewater industry to seamlessly execute small to multi-million-dollar projects. Avoid common pitfalls and control project costs with a knowledgeable project manager or construction manager as your trusted advisor.

Project Management & Construction Oversight: Effectively manage timelines, budgets, contractors, and ensure compliance with design specifications.

Regulatory and Compliance Support: The regulatory landscape for wastewater management is complex and varies widely by jurisdiction. Federal rules set minimum standards, but state, local, and international regulations often impose stricter requirements. We help our clients navigate these frameworks and adopt strategies to ensure compliance. Bring our team in to help:

- Review wastewater infrastructure to ensure regulatory compliance
- Assist with coordinating city permit applications to reduce delays and expedite approval timelines
- Work with local municipalities to lower fees
- Assist with permit management and tracking
- Comply with the Clean Water Act (CWA) and other governmental regulations

PROJECT EXAMPLES

ENGINEERING AND PROJECT MANAGEMENT FOR HIGH STRENGTH WASTEWATER TREATMENT UPGRADES FOR A RETAIL INDUSTRY LEADER

EAD was the chosen provider of engineering, project management, and administrative services for a Fortune 500 leader in the process manufacturing industry who wanted a high-strength wastewater treatment upgrade. As part of the upgrade, the industry leader implemented equalization, neutralization, screening, a DAF system, and sludge containment for their truck haul-off. EAD provided an IFB (Issued for Bid) package including pricing to complete the project and multi-discipline engineering drawings. We designed reinforced concrete foundations for their interior DAF and screener tanks and a secondary containment dike for their exterior tanks. We also coordinated with the local authorities to support our client's permit application.

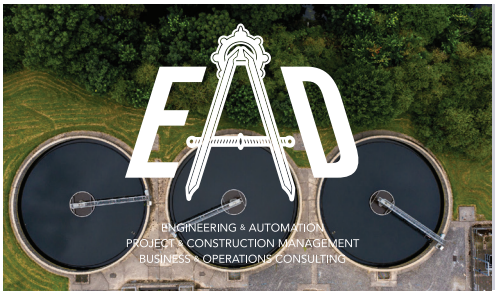
ENGINEERING AND PROJECT MANAGEMENT FOR HIGH STRENGTH WASTEWATER TREATMENT UPGRADES FOR A LEADING MEAT SUPPLIER

EAD earned the trust of a household-name meat industry manufacturer known for supplying quality protein and prepared food products to schools and major retail and food service clients. Our client needed a high-strength industrial wastewater treatment upgrade to eliminate nitrogen in their system effluent. The upgrade included modifications to their existing anaerobic lagoon, the addition of an air break to the influent line to prevent backflow, and the addition of a 1MM gallon anoxic tank with mixers.

The upgrade also included new aeration blowers to supply up to 14,000 cfm to an aeration ditch and new lift stations for handling influent water to the lagoon, lagoon to tank transfer, return activated sludge and waste-activated sludge, and a dewatering screw press. EAD provided full process design and calculations, equipment sizing and specifications, civil and structural engineering, full electrical engineering including power plans, transformer specifications, IFB package and contractor coordination, and IFC (Issued for Construction) and permit packages as part of the upgrade.

EAD performed engineering and project management for the wastewater treatment upgrade at multiple client sites. At one site, the manufacturer made modifications to their existing treatment plant to increase its capacity from 1.5 MGD to 2.0 MGD. Our client modified the pump rates, added an additional lift station to bypass the lagoon for carbon content in the nitrification tank, and replaced runs of piping as required for the resulting increased flow rates. In support of the modifications, EAD developed civil, structural, process, and electrical drawings, developed an IFC package, and performed process engineering calculations for a modified Ludzack-Ettinger (MLE) process.

At another site, EAD performed similar tasks to help our client transition from a strictly DAF process to a combination DAF and aeration process and reduce their effluent BOD concentration (prior to discharging to the municipal utility) from 2500 mg/L to under 50 mg/L. We also provided project management services to support our client and their local municipality that helped to lower their wastewater fees.



10,000+ PROJECTS, 1.2 MILLION+ HOURS OF EMBEDDED SERVICES SINCE 2001

Unlock cost savings, improve accuracy, and streamline operations with EAD's unparalleled expertise in engineering, automation, and project management.

EAD is your trusted partner — contact us *today*!

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