

Technology:

# Engineered Lagoons



North American Wetland Engineering

## The Applications

Municipal Lagoon Upgrade

Agricultural Waste

Landfill Leachate

Airport Deicing

Food Processing

Pulp and Paper

## The Technology

Lagoons are the work truck of wastewater treatment; they come in many sizes and shapes, designed to carry heavy loads, and are usually used and abused. They can range from 2 acre anaerobic hog waste lagoons to advanced, covered systems tucked away behind an upscale residential development. One reason lagoons are often chosen is they offer a straightforward means to handle variable flows and loads. But, more likely, it is because they are simple to construct and operate.

North American Wetland Engineering, LLC is at the forefront of designing engineered lagoon systems and actively promotes the use of innovative equipment and design approaches. Coupling engineered lagoons with NAWE's patented wetland systems has been essential in broadening the application of wetland technology. Detailed knowledge and experience with soils, liners, aeration, baffles, and synthetic covers provides us with a technical foundation in lagoon design that is unmatched. In addition, NAWE applies current bacterial theory (commonly used in sewage plants) during evaluation of system performance. With this strong foundation, NAWE confidently applies well accepted engineering principles to provide unique lagoon-based solutions.

NAWE staff have experience in the design of the following lagoon systems:

- High performance aerated lagoons
- Lagoon-based activated sludge plants
- Complete mix and partial mix design
- Aerated facultative and facultative lagoons
- Anaerobic lagoons
- Reservoirs
- Equalization ponds
- Polishing ponds



For most engineers, lagoons are no more than an exercise in earthwork, but, for NAWE, lagoons are an exercise in innovation.

 30% Post Consumer

Ecological engineering providing  
practical, innovative solutions.

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