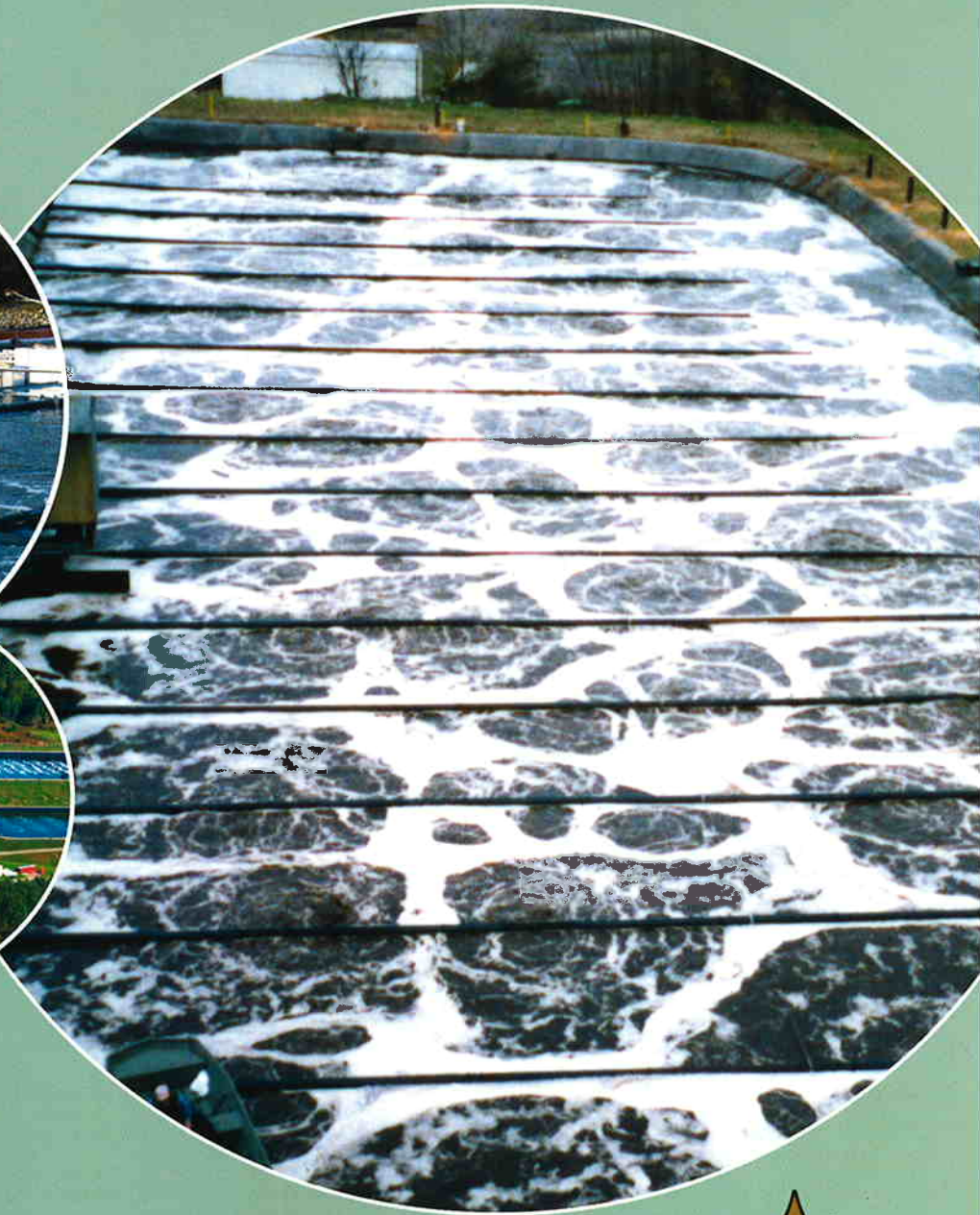


Environmental Dynamics Inc.

Lagoon Technology



LAGOON TECHNOLOGY

Lagoon systems have been recognized throughout the world as an economical solution for wastewater treatment. Low operating cost and minimal operator attention have made lagoon systems the preferred process solution for typical or conventional secondary treatment (30 mg/L BOD / 30 mg/L TSS) where land availability and proper topography permit.



"Our mission is to deliver advanced treatment performance using simple, cost effective technologies" - R. C. Chann, P.E., Exec. Vice President EDI



Environmental Dynamics Inc. A Leader in Aerated Lagoon Technology

Since 1978 EDI has provided aerated lagoon solutions for secondary treatment. EDI aerated lagoon solutions include the following innovations of equipment and process configurations that are now considered industry standard:

- Pioneered the use of membrane diffusers in aerated lagoons
- Applied high efficiency diffused aeration products in lagoons with energy savings of 30-70% over mechanical aerators and static tubes.
- Patented retrieval methods which allow access and service of high efficiency diffusers, with no need to dewater or shut down lagoons.
- Applied both floating aeration systems and submerged lateral systems
- Patented BioMizer™ technology for increased mixing efficiency in complete mix lagoons
- Developed the FlexAir™ Magnum tube diffuser for outstanding economy in large scale applications
- Complete mix and partial mix processes for increased capacity

EDI innovations are now considered industry standard

EDI's innovative process design and hardware solutions have proven successful in more than 1,000 lagoon applications. These solutions provide cost effective options for secondary treatment, and typically deliver BOD and suspended solids levels less than 30 mg/L. EDI's fully retrievable fine bubble diffuser systems continue to deliver the lowest operating cost of any secondary wastewater treatment option available.

Limitations to Conventional Aerated Lagoon Technologies

With all the benefits of the conventional aerated lagoon processes, there are also substantial process limitations. Conventional lagoon technologies cannot meet stringent effluent criteria imposed by water quality based effluent standards. Other limitations include:

- Limited operator process control
- Large land area requirements
- Limited cold weather performance
- Limited or no ammonia removal
- Large volumes which limit control of algae and suspended solids levels in warm weather operations



New Advanced Lagoon Technologies!

EDI continues to move forward with advanced lagoon process and hardware innovations. The Advanced Treatment Lagoon Activated Sludge (ATLAS™) technologies from EDI headline those efforts. EDI ATLAS systems deliver the process performance of an activated sludge process, along with the following unique process and operational benefits:

- Upgrade existing lagoons or use with new lagoon construction
- Economical installed cost to achieve full advanced treatment levels for BOD and TSS with ammonia and nutrient control
- Low operating cost using high efficiency field-proven EDI FlexAir™ aeration systems with more than 20 years of successful operating history
- Multiple process choices within the ATLAS framework
- Staged treatment options for long-term facility viability
- Reduced space requirements
- Year round performance in warm or cold climates
- Minimal increase in operator attention, monitoring, or maintenance requirements over conventional aerated lagoons
- Simple and economical long-term sludge management using lagoon-based stabilization and storage