Nano Gas™ Cuts Lagoon Sludge 83%, Showcasing Breakthrough Wastewater Tech for $600B U.S. Market

Proven nanobubble technology restores wastewater lagoons faster and cheaper, unlocking scalable infrastructure solutions across a $600B U.S. market

STOCKDALE, TX, UNITED STATES, March 18, 2026 /EINPresswire.com/ -- Nano Gas™ Environmental, a developer of advanced nanobubble water treatment technologies, today announced the successful completion of a municipal wastewater lagoon remediation project in Stockdale, Texas. The project demonstrates the commercial potential of its proprietary nanobubble oxygenation technology to significantly improve wastewater treatment performance while reducing costs for municipalities.

> “This project demonstrates both the economic and operational advantages of nanobubble technology,. This platform has the potential to reshape how municipalities address lagoon performance nationwide.”
>
> *Len Bland, CEO*

The project achieved an 83% reduction in sludge accumulation in the primary lagoon, restoring operational capacity and eliminating the need for traditional mechanical dredging — a process that can cost millions and disrupt operations. The results position Nano Gas™ Environmental’s technology as a potentially transformative solution for thousands of aging lagoon-based wastewater systems across North America.

“Municipal wastewater operators are facing a growing infrastructure challenge as decades of sludge accumulation threaten capacity and regulatory compliance,” a Nano Gas™ Environmental spokesperson said. “The Stockdale project shows nanobubble technology can restore lagoon performance faster, more economically, and with far less disruption than traditional dredging.”

Key Project Results

Nano Gas™ deployed its nanobubble oxygenation system alongside targeted microbial treatment to accelerate biological digestion of accumulated sludge.

Measured outcomes include:

- 83% reduction in sludge levels in Lagoon #1
- Approximately 50% reduction in Lagoons #2 and #3
- 4–8x faster microbial digestion compared to conventional aeration
- Elimination of mechanical dredging requirements
- Avoidance of approximately 350 truckloads of sludge removal

At the start of the project, sludge levels in the primary lagoon measured between 5.6 and 5.8 feet. Following treatment, sludge levels dropped to less than one foot in several areas, restoring capacity and improving system performance.

By avoiding dredging, the city reduced remediation costs by approximately two-thirds compared to traditional mechanical removal methods.

Addressing a National Infrastructure Challenge

Wastewater lagoons remain one of the most widely used treatment systems in the United States, particularly in smaller municipalities and rural communities. Many of these systems, however, have been operating for decades and are now reaching capacity due to accumulated sludge.

Traditional dredging solutions often require heavy equipment, significant capital investment, and operational downtime that municipalities struggle to manage.

Nano Gas™ Environmental's nanobubble oxygenation technology provides a non-invasive alternative that accelerates natural biological processes. By dramatically improving oxygen transfer efficiency, nanobubbles create optimal conditions for beneficial microbes to break down organic solids and sludge at a much faster rate than conventional aeration systems.

Because nanobubbles remain suspended in water for extended periods, they deliver oxygen more efficiently, enhancing treatment performance while allowing systems to remain fully operational during remediation.

Significant Market Opportunity

The success of the Stockdale project underscores the broader commercial opportunity for nanobubble-based wastewater solutions.

The U.S. water and wastewater infrastructure market is expected to exceed $600 billion in modernization investment over the coming decades. Within that market, lagoon remediation and sludge management represent a growing and underserved segment, as municipalities seek cost-effective alternatives to expensive capital upgrades.

Nano Gas™ Environmental believes its platform can be deployed across multiple sectors, including:

- Municipal wastewater lagoon remediation
- Industrial wastewater treatment
- Agricultural lagoon management
- Environmental remediation
- Aquaculture water quality management

With thousands of lagoon systems across North America alone, the addressable market for scalable, non-invasive remediation solutions is substantial.

Positioned for Growth

Following the successful Stockdale deployment, Nano Gas™ Environmental is expanding discussions with municipalities, wastewater operators, and engineering firms interested in implementing nanobubble technology to restore capacity and extend the life of existing infrastructure.

The company is actively pursuing additional pilot projects and commercial deployments across both municipal and industrial wastewater facilities.

As infrastructure investment accelerates and regulatory pressures increase, Nano Gas™ Environmental believes its technology is well positioned to become a scalable solution within the evolving water treatment sector.

“This project demonstrates both the economic and operational advantages of nanobubble technology,” the company said. “We believe this platform has the potential to reshape how municipalities address sludge accumulation and lagoon performance nationwide.”

About Nano Gas™ Environmental

Nano Gas™ Environmental develops advanced nanobubble technology solutions designed to improve water quality, accelerate biological treatment, and reduce sludge accumulation in wastewater systems. By enhancing oxygen transfer at the microscopic level, the company enables municipalities and industrial operators to restore treatment capacity while reducing environmental impact and operating costs.

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