



# NEWS RELEASE

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FOR IMMEDIATE RELEASE

## **Envirogen Technologies to Provide Innovative Nutrient Removal System for Pennsylvania Wastewater Plant**

**Fluidized-bed bioreactor awarded State grant for innovative technology, enables community to exceed impending Chesapeake Bay regulations and gain nutrient credits**

**Kingwood, TX, April 22 2010** -- Envirogen Technologies, Inc. (Envirogen) announced today that system construction has begun under a contract with the Borough of Ashland (Ashland, Penn.) to design and deliver a fluidized-bed bioreactor (FBR) system for nutrient removal at the Borough's wastewater treatment plant. Funded in part by an Innovative Technologies grant under the Pennsylvania Department of Environmental Protection's (PA-DEP) "Growing Greener" program, the new system will remove nitrates from the plant's effluent prior to discharge and help the Borough keep its treated wastewater well below the State's new regulatory limits scheduled to take effect in 2012. In addition, Ashland will gain nutrient credits that can be sold to other dischargers under a system recently adopted by PA-DEP, further offsetting treatment costs and creating an additional revenue source for the Borough. The system is scheduled for delivery in summer of 2010.

According to William Guarini, Director – East Region, for Envirogen, the new FBR system, when it is commissioned, will be the culmination of an extensive three-way cooperative effort between the Borough of Ashland, Envirogen and the Borough's engineering firm, Alfred Benesch and Company, to update Ashland's wastewater operation with an eye toward future water quality needs in the threatened Chesapeake Bay watershed. "In critical estuary habitat areas such as the Chesapeake Bay, it's essential that we all come together to optimize treatment technology and minimize nutrient releases as much as possible," Guarini said. "The people of Ashland had

the foresight to identify nutrient treatment opportunities before regulations forced the issue. With the help of its engineering firm and Envirogen, Ashland was able to take advantage of the State's grant program and develop an innovative technology solution that will meet its future environmental needs and perhaps form a new source of revenue for the Borough," he added.

Pennsylvania's Chesapeake Bay Tributary Strategy, initiated a decade ago in the Chesapeake 2000 Agreement, identifies a range of best management practices (BMPs) to limit nutrients and sediment from polluting the Bay and creating oxygen-deprived "dead zones" where marine life cannot survive. The BMPs are designed to help meet federally mandated "cap loads" of nutrients entering the Bay from major tributaries. In addition, the State has implemented a market-based nutrient trading program in which point and non-point sources can buy or sell credits to each other based on the nutrient profile of their discharges, in order to either stay in compliance or generate revenue from surplus nutrient reduction. If the measures in Pennsylvania's program do not succeed in reaching target nutrient reductions in 2010, the State will then be required to comply with a Bay-wide plan to be established and enforced by the U.S. Environmental Protection Agency (US-EPA) in 2011.

According to Natalie O'Connor, E.I.T., Senior Designer for Alfred Benesch and Company and project engineer on the Ashland plant expansion, the Envirogen FBR system is well suited to the Borough's existing wastewater infrastructure and provides a forward-looking, flexible solution to meet its treatment goals. "Ashland's wastewater treatment operation was within compliance, but we saw room for performance improvements beyond just preventive maintenance and update protocols," O'Connor stated. "The Envirogen FBR system is an ideal fit with Ashland's existing treatment scheme and requires only a small footprint. We were able to size the system so that it isn't required to operate constantly to meet compliance goals, leaving room for future growth while creating a potential for nutrient credit revenues for the Borough," she added.

Ashland's Envirogen FBR system will consist of a fluidized bed bioreactor, chemical feed system and PLC-based process controls. The Ashland wastewater treatment plant is permitted to treat 1.3 MGD but currently runs at an average flow of 0.8 MGD, with a nutrient cap load of 6 mg/L, or approximately 24,000 lbs/year. The Envirogen FBR system will be capable of removing nutrients from the plant's effluent at a rate of 50-60 lbs/day.

According to Guarini, the cooperative approach of the Ashland project is an excellent method for introducing innovative technology to the field, especially in challenged areas such as the Chesapeake Bay. "When regulatory requirements heat up in a broad geographical region like

this one, a large number of municipalities are compelled to quickly find their way to efficient, economically feasible compliance,” he explained. “While capital improvements are not always possible, there are other solutions such as performance-based technology+services programs to help meet treatment goals at a low lifecycle cost. Either way, the cooperation of state and local governments with technology providers can go a long way towards identifying, designing and funding the best solution,” he concluded. For more information on this project or on Envirogen’s nutrient removal technology, visit [www.envirogen.com](http://www.envirogen.com).

**About Envirogen Technologies, Inc.**

Headquartered in the Houston suburb of Kingwood, Texas, Envirogen is a technology+services solutions provider that designs, builds and implements systems for business in municipal and industrial water and environmental treatment applications. A primary focus for Envirogen is the concept of ‘lifecycle performance,’ in which the company provides guaranteed, pay-for-performance, long-term contracts at predictable costs that offer customers the lowest total cost over the lifetime of an equipment installation. Primary applications for Envirogen’s systems include treatment of groundwater for the delivery of high-quality potable water, groundwater remediation, wastewater treatment, water re-use, nutrient removal, and odor and VOC control for municipal and industrial markets. In industrial markets such as mining, hydrocarbon processing and chemical processing, Envirogen also specializes in process water treatment, byproduct recovery and chemical purification. The company conducts business throughout the United States, with regional offices in Southern California, Illinois, New Jersey and Tennessee. For more information on the company, visit [www.envirogen.com](http://www.envirogen.com).

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