



GEMI[®]

Collecting the Drops:

**A Water
Sustainability
Planner**

Case Example

3M: Upgrading a Pure Oxygen Wastewater Treatment System in Illinois

Upgrading the oxygen treatment system at a 3M wastewater treatment facility has brought increased efficiency, capacity, and annual savings.

The 3M Cordova, Illinois facility in the U.S. treats process wastes on-site at its wastewater treatment facility. The facility treats its organic waste biologically by introducing oxygen into aeration basins. Oxygen had been provided by an air blower system, but 3M replaced the blower system with a pure oxygen system in 2001. Liquid oxygen is transported from off-site, vaporized, and injected into the activated sludge treatment system.

The new system has decreased energy and chemical usage, reduced emissions of volatile organic compounds, and increased the treatment efficiency and capacity of the wastewater treatment system. The annual savings resulting from the system replacement project is \$85,700 (USD) per year.