



## **IMPACT OF REGULATIONS ON PUBLICLY OWNED TREATMENT WORKS**

### **I. Issue Statement**

Published EPA strategy as well as public sentiment and political pressures on various topics such as climate change, nutrient removal and endocrine disruptive compounds may drive new regulations and legislation that creates more stringent effluent limits for publicly owned treatment works (POTW's) that could be unattainable, unsustainable and economically unfeasible.

The wastewater industry is beginning to address the challenges posed by climate change including the pressure to reduce carbon emissions. The EPA Office of Water is already taking some actions to determine what its role should be in reducing energy consumption and greenhouse gases at POTW's. At the same time many states and the EPA are considering much more stringent regulations on total nitrogen and phosphorus. Finally, research is being conducted that may result in effluent regulations for various new contaminants like endocrine disrupting compounds.

There are still many questions surrounding these issues. The first question really deals with the extent of a major environmental risk. The second question deals with the available technology. All of these issues will dramatically increase the financial needs of POTW's at a time when the needs far exceed the available funds. Finally, some of the decisions made on one issue can dramatically affect another issue. The best example of this is that lowering effluent limits on total nitrogen to extremely low levels can create significant increase in nitrous oxide emissions from plants. These are considered over 300 times more damaging to the environment than CO<sub>2</sub> emissions.<sup>1</sup> Therefore, one regulation could easily make another one more difficult. The limited technologies that exist to deal with all of these issues are all energy intensive at a time when the goal is to significantly reduce energy consumption.

In addition to many questions on the science, there is also a considerable concern on the costs. The National Association of Clean Water Agencies has estimated that it could cost between \$400 billion and \$900 billion through 2050 for water and wastewater utilities to

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<sup>1</sup> Congressional Research Service. 2010. *Nitrous Oxide from Agricultural Sources: Potential Role in Greenhouse Gas Emission Reduction and Ozone Recovery*. Washington, D.C.

deal with climate change implications. This amount of money is significantly more than the EPA Watershed Needs Survey reports for current requirements. The costs for some of the proposed nutrient removal standards being considered are virtually unknown as the standards in some cases exceed what current technology can accomplish. While this in many cases may give opportunities to some equipment manufacturers, it is of such a magnitude that it could virtually take all funds away from current needs and significantly change the industry.

## II. Position

It is critical that WWEMA closely monitor and stay engaged with each of these issues as they develop. The following items must be addressed for all of these issues:

- a. Many of these concerns, especially climate change issues, are still based on incomplete science. WWEMA needs to continue to monitor that any proposed regulations are based on sound science and, more important, available technology with reasonable financial impacts.
- b. The nutrient regulations must be reasonable and obtainable and not be counter-productive to the carbon emission initiatives.
- c. WWEMA should track progress of these regulations and advocate that if passed, appropriate options to fund their implementation be considered.

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