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March 26, 2014

Leif Hockstad

U.S. Environmental Protection Agency

Climate Change Division, Office of Atmospheric Programs

Office of Air and Radiation

1200 Pennsylvania Ave, NW

Washington, DC 20460

Via Email: Hockstad.Leif@epa.gov

**Re: NACWA Comments on Wastewater Treatment Emissions Estimates in
EPA's Draft *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2012***

Dear Mr. Hockstad:

The National Association of Clean Water Agencies (NACWA) appreciates this opportunity to comment on the U.S. Environmental Protection Agency's (EPA) draft *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2012 (Inventory)*, and specifically Section 8.2, *Wastewater Treatment*. NACWA represents the interests of nearly 300 publicly owned wastewater treatment agencies nationwide, serving the majority of the sewered population in the U.S. NACWA members are concerned that greenhouse gas (GHG) emissions from wastewater treatment facilities be characterized correctly in the *Inventory*, since the *Inventory* is a frequently-cited reference for GHG information.

The wastewater treatment category includes publicly owned treatment works (POTWs), septic systems, and industrial wastewater treatment systems. Although the emissions are much smaller in magnitude than for the highest ranked categories, the broadly-based wastewater category consistently ranks in the top ten emitters for nitrous oxide and methane emissions in the U.S. NACWA's review focused on emissions from POTWs, which are a fraction of the total wastewater treatment category emissions.

The emissions from POTWs in the 2012 *Inventory* are essentially the same as those in the 2011 *Inventory*, with some clarifications added to the text. NACWA's comments on the 2011 *Inventory* requested that all values used in the equation to calculate emissions be provided to enable the calculations to be easily reproduced. NACWA appreciates the response to this request with the addition of Table 8-15, which provides the values for the variables used in calculating the nitrous oxide emissions for 2012 and previous years.

NACWA agrees with the additions made to the Planned Improvements section and encourages EPA to investigate additional data sources as soon as possible. Since the 2008 Clean Watershed Needs Survey (CWNS) is not detailed enough to be used in the *Inventory* and the 2004 CWNS data is likely outdated, additional data sources are necessary to ensure the accuracy of future *Inventories*. NACWA supports EPA's investigation of the data available at www.biogasdata.org and from ongoing research in the U.S. and abroad. However, NACWA also urges caution in using results from studies that were not designed to produce nationally-applicable results. Relying on studies that are not representative of utilities nationwide may actually increase the uncertainty of the estimates. NACWA agrees that EPA's plan to review inventories from other countries for additional data and methodologies may be useful, as long as any information used is directly applicable to wastewater treatment processes in the U.S.

As NACWA has explained in comments on the *Inventory* in previous years, the Association believes that the nitrogen loading rates for $\text{N}_2\text{O}_{\text{EFFLUENT}}$ are sourced incorrectly and that using information from the existing National Pollution Discharge Elimination System (NPDES) database will yield more accurate and justifiable loading rates. The NPDES permitting program represents long-term, nationwide facility performance which would allow emissions estimate projections over the time series represented in the *Inventory*. If EPA decides not to investigate its own databases, the average nitrogen loading rate of 15.1 g N/capita-day¹ represents the industry standard and is supported by a wealth of data widely confirmed in U.S. practice, as explained in our previous comments and supported by data collected by NACWA from 48 U.S. POTWs. This result represents all domestic sources of nitrogen, the use of other nitrogen-containing compounds, and both residential and commercial sources.

Outside of the Wastewater Treatment section, the *Inventory's* Executive Summary and Introduction should state more clearly that the *Inventory's* purpose is for information, not regulation. EPA should ensure that all of its offices understand the purpose of the *Inventory* and recognize that the *Inventory's* industry-wide methodologies are largely inadequate for facility level emissions, such as those required by EPA's Greenhouse Gas Reporting Rule and the Clean Air Act Title V and Prevention of Significant Deterioration (PSD) permitting programs.

Thank you for consideration of our comments on the draft *Inventory*. Please contact me at 202-533-1836 or cfinley@nacwa.org if you have any questions about NACWA's comments.

Sincerely,



Cynthia A. Finley, Ph.D.
Director, Regulatory Affairs

¹ Tchobanoglous, G., F.L. Burton, and H.D. Stensel, *Wastewater Engineering: Treatment and Reuse*, Metcalf & Eddy, Inc. 4th Edition, McGraw-Hill, New York, 2003.