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March 25, 2013

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: 1990-2011***

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: 1990-2011 (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.

NACWA asks that EPA continue to improve the accuracy of GHG emissions estimates for publicly owned treatment works (POTWs) and ensure that these estimates are used by the Agency only for their intended informational purposes. The wastewater category is broad, including 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.

NACWA has submitted comments on the previous six *Inventories* and appreciates EPA's responses to those comments. The GHG emissions estimates for municipal wastewater treatment in the 2011 *Inventory* are essentially identical to those in the

2010 *Inventory*, with only minor adjustments made based on population updates to the U.S. Census. Therefore, NACWA's comments on the 2010 *Inventory* also apply to the 2011 *Inventory*. The 2010 *Inventory* comments focused on the use of the *Inventory* for information purposes only and to improve the municipal wastewater nitrous oxide emissions estimates through appropriate use of research data, EPA databases, and published information. These comments are summarized below.

- The Executive Summary of the *Inventory* should caution potential users that the *Inventory*'s stated 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.
- NACWA encourages EPA to carry out its planned improvements to further refine the accuracy of emissions estimates. As EPA evaluates new research for use in the *Inventory* estimates, however, we urge 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 believes the nitrogen loading rates for N_2O_{EFFLUENT} are sourced incorrectly and that using information from the existing National Pollutant 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 loading rate represents all domestic sources of nitrogen, the use of other nitrogen-containing compounds, and both residential and commercial sources.
- NACWA asks that all values used in the equations to calculate emissions be provided in the factor definitions or in the text to enable the calculations to be easily reproduced. For example, the value for US_{POPND} is not provided – it is only referenced to the Clean Watershed Needs Survey (CWNS). EPA should provide the value that it used from the CWNS.

Finally, EPA states in the Planned Improvements section that the CWNS data for 2008 were not incorporated due to significant changes in format of the database, and that “additional information and other data continue to be evaluated to update future years of the *Inventory*.” Since the 2004 CWNS data is likely outdated, these additional data sources need to be identified and evaluated soon to ensure the accuracy of future *Inventories*.

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.

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,

A handwritten signature in cursive script, reading "Cynthia A. Finley". The signature is written in dark ink and is positioned below the word "Sincerely,".

Cynthia A. Finley
Director, Regulatory Affairs