November 29, 2018

Charles E. Sheehan
Acting Inspector General

Subject: Office of Inspector General Evaluation of Federal Biosolids Program

The California Association of Sanitation Agencies (CASA), North East Biosolids and Residuals Association (NEBRA), Mid Atlantic Biosolids Association (MABA), the Virginia Biosolids Council (VBC), and the US Composting Council (USCC) are pleased to provide comments on the Office of Inspector General (OIG) evaluation of the federal biosolids land application program released November 15th. Our Associations collectively represent local agencies and private companies engaged in advancing the recycling of wastewater into usable water, while stewarding the generation and reuse of renewable energy, biosolids, organic residuals, and other valuable resources. Through these efforts, we help create a clean and sustainable environment for future generations.

We have significant concerns about the OIG report. While some parts of the report provide accurate descriptions of biosolids management and regulation, other parts are inaccurate and seemingly biased. The overall impression created by the report and, more specifically, the "At a Glance" summary, is frankly irresponsible in its assessment of a critical public health program which is a cornerstone of the Clean Water Act. The report's title alone ("EPA Unable to Assess the Impacts of Hundreds of Unregulated Pollutants in Land Applied Biosolids on Human Health and the Environment") implies the nation is at risk unless land application is discontinued pending full risk assessments of 352 constituents. This is the core theme of the OIG report and the focus of the "At a Glance" summary. This lack of EPA risk assessments for 352 contaminants is the only significant question OIG raises about the safety of biosolids recycling to soils. But the OIG report ignores myriad other evidence – research and experience – that demonstrates biosolids safety. The narrow focus of the OIG report, as emphasized in the report's title, creates an inaccurate picture. Trace chemical contaminants in biosolids have been the subject of hundreds of peer-reviewed publications for decades. Their behaviors in biosolids and soils – and their potential impacts – are understood to a significant degree. EPA completing full risk assessments on 352 contaminants will add to that volume of scientific knowledge, but it will be just one more set of data. The safety of biosolids recycling to soils is firmly grounded in science and does not hinge on those 352 risk assessments (as the OIG report implies).

While the authors of the OIG report have shown a rudimentary understanding of wastewater treatment and biosolids management, it is obvious from the report that they have not reviewed a good portion of the published literature. Wastewater treatment systems are engineered to accelerate the natural cleansing process, which has protected the earth for millennia. Wastewater treatment systems are analogous to wetlands, which are natural filters and which remove pollutants from the water and concentrate them in the solids. The physical, chemical,

and biological processes in these systems break down a large majority of any trace chemicals of concern. Most of those chemicals that do not break down as quickly are sequestered. In addition, soils – especially those rich in organic matter, which biosolids provide – are ideal treatment systems for trace chemicals. Biosolids recycling to soils provides a critically important method for treating the myriad natural and synthetic chemicals found in our daily lives. The OIG report ignores these facts, and the report's core finding about the risk from 352 contaminants also ignores this critically important fact of toxicology: mere presence of a chemical does not equate to harm.

The wastewater community has for decades strongly supported the scientific rigor necessary to assess and evaluate the positive and negative impacts of land application of biosolids. Greg Kester (CASA) served on the National Academies of Science Committee which evaluated the federal biosolids rules and produced the 2002 report: *Biosolids Land Application: Advancing Standards and Practices*. Two of the key findings of that Committee which are articulated in the OIG report and for which it appears the OIG writers did not have the proper context, include:

1. "However, there has been no documented scientific evidence to substantiate those claims." (Page 52 NAS 2002). This NAS statement is in response to acknowledging anecdotal complaints of adverse health effects. This finding remains true 16 years later.
2. Because the 503 rules are intended to protect human health and the environment, they are necessarily dynamic and must evolve with the science. An overarching recommendation of the NAS report, in response to point 1 above, was to continue to update the science on which the regulations were promulgated and make revisions as necessary. In no way did this presuppose that land application presented any risk, merely that new science must always be considered. Such science has been executed over the past 16 years, both outside and within EPA.

The wastewater community, regulators (federal and state), research institutions, trade associations, and the regulated community have recommended strong compliance, oversight and enforcement, and technical assistance by EPA. We have urged persistent devotion to ongoing science. And we have supported extensive research, regulation, and best management practices above and beyond EPA's efforts. The OIG report seems unaware of the long history of such recommendations and actions. These ongoing efforts, which mirror efforts in many other parts of the world, continue to add to the volume of research and experience that demonstrate the low risk and sustainability of biosolids land application.

Far more is known about biosolids and trace chemical contaminants than the OIG report acknowledges. The benefits of biosolids use is widely understood, and, over the years EPA has articulated this reality. For example, as noted in the 2002 NAS report on page 51: "…EPA decided that the land application of biosolids was a low risk to public health and therefore the

biosolids oversight program was given a low priority... That decision was based on the aggregate risk assessment, which showed negligible adverse effects even without regulation."

Over the years, in response to that EPA decision, state agencies (Wisconsin DNR on behalf of all states, WA DOE, etc.), CASA, NACWA, and others have urged EPA not to disinvest in its biosolids program. Even though biosolids present relatively low risk, we recognize that their use on soils invokes concerns. Having strong ongoing oversight, enforcement, and research are critical to ensuring public confidence.

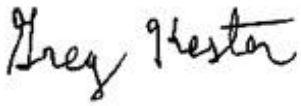
Nevertheless, despite the budgetary limitations and the need to prioritize agency actions based on risk, EPA has continued on what it believes to be a prudent course. As noted in the OIG report, EPA has undertaken multiple critical tasks, even with their limited biosolids budget. The biennial reviews are now on schedule (2013 and 2015 recently released and 2017 set for December 2018 release). The chemical risk screening tool (BCRAM, now the Biosolids Screening Tool) has been in development, with ongoing refinements, for many years and is currently undergoing further refinement. And EPA has implemented the electronic reporting program for biosolids. EPA also fulfilled all 14 high priority recommendations of the 2002 NAS report. What the OIG report would seem to suggest is that the agency invest fewer dollars in other critical programs in order to expedite research on certain trace chemicals in biosolids. It should be noted that the multitude of constituents cited in the OIG report are not unique to biosolids and are present in a variety of environmental matrices, since they are ubiquitous in societal use. Is there a reason that expenditures should now be prioritized for biosolids and minimized for other matrices?

In summary, based on scientific research and proven experience - and contrary to the OIG report's apparent bias – land application of biosolids has been successfully and safely practiced in the US for decades and has improved soil health, reduced irrigation needs, increased crop production, and mitigated climate change through carbon sequestration and the avoidance of fossil fuel based inorganic fertilizer. The wastewater community acknowledges the presence of constituents used in commerce that appear in biosolids. However, ongoing research has not shown their presence causes adverse environmental or public health effects. Research should and will continue, with or without EPA's involvement. And EPA will continue to evaluate that research, as it has been doing, to further our understanding through chemical screenings and risk assessments.

Dedication to continued research and advancing the science is always strongly supported by the wastewater community. This is the proper course of action for any environmental and public health regulation. Wastewater treatment plants generating biosolids are public environmental stewards providing essential public health protections and services. Indeed, the *British Medical Journal* (*BMJ*) reported that sanitation (wastewater treatment) was the most important public health advance since the 1850s, when the *Journal* was first published.

Please let us know when we can convene a meeting with your office to further discuss the harm this uneven report may cause and what steps will be taken to remedy it. We agree with EPA's objections to the OIG report's contested recommendations and believe they are inappropriate, beyond the purview of the OIG, and would cause confusion with stakeholders and the public. We urge those recommendations be abandoned. We can be reached at the emails and numbers below.

Sincerely,



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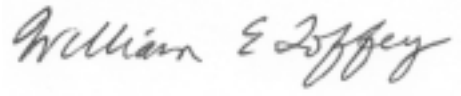

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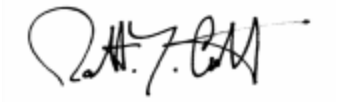

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