

EXECUTIVE COMMITTEE

PRESIDENT

Kevin L. Shafer

Executive Director

Milwaukee Metropolitan

Sewerage District

Milwaukee, WI

VICE PRESIDENT

Jeff Theerman

Executive Director

Metropolitan St. Louis

Sewer District

Saint Louis, MO

TREASURER

David R. Williams

Director of Wastewater

East Bay Municipal

Utility District

Oakland, CA

SECRETARY

Suzanne E. Goss

Government Relations Specialist

JEA (Electric, Water & Sewer)

Jacksonville, FL

PAST PRESIDENT

Marian A. Orfeo

Director of Planning

& Coordination

Massachusetts Water

Resources Authority

Boston, MA

EXECUTIVE DIRECTOR

Ken Kirk

June 8, 2010

Peter Silva

Assistant Administrator

Office of Water

U.S. Environmental Protection Agency

Ariel Rios Building

1200 Pennsylvania Ave., NW (4101M)

Washington, DC 20460

Via Facsimile

Dear Pete,

We understand that your office is currently considering its options regarding the pending November 2007 *Petition for Rulemaking on Secondary Treatment Standards for Nutrient Removal* from the Natural Resources Defense Council (NRDC) and several other organizations (Petitioners) seeking to modify the definition of secondary treatment to require removal of nutrients by all wastewater treatment plants regardless of water quality needs. As we have discussed several times over the past few months, nutrient issues are a top priority for NACWA. Our public clean water agency members recognize that they are an important part of nutrient reduction efforts and stand ready to do their share. Indeed, many of the gains in nutrient control made to date are because of the investments and efforts made by publicly owned treatment works (POTWs). As we have stated in writing twice since the petition was filed, NACWA continues to believe that there are strong legal, technical and policy reasons to deny the November 2007 petition.

As National Pollutant Discharge Elimination System (NPDES) permit holders, NACWA's public clean water agency members are the only source of nutrients that environmental NGO groups have chosen to aggressively pursue. Nutrient over-enrichment is a serious threat to water quality nationwide, but this does not mean that technology-based controls for nutrients at every wastewater treatment plant make sense. NACWA understands the frustrations of the NGO community – that the water quality programs of the Clean Water Act (CWA) are struggling to adequately control nutrient pollution – but nutrients behave differently than many other pollutants and less nutrients does not always mean water quality improvement for all watersheds. We must be careful not to impose unnecessary controls simply out of frustration with the insufficient progress made and the limited participation in nutrient reduction by other key sectors to date.



National Association of
Clean Water Agencies

1816 Jefferson Place, NW
Washington DC 20036-2505

p 202.833.2672 f 202.833.4657

www.nacwa.org · info@nacwa.org

Rather than continuing to rely only on the existing menu of approaches being used under the CWA's water quality programs, or reverting to a technology-based approach that requires the same level of control regardless of water quality, NACWA believes that we must consider new and innovative approaches to addressing the unique properties of nutrients as a source of water impairment. We think all options should be evaluated, including technology-based approaches, but the selection of those approaches must be smart, reasonable, and legally justified. NACWA is taking a leadership role in seeking proactive solutions and has already begun to initiate a Summit planned for September that will focus municipalities on a viable path forward while seeking input from the NGO, state and federal/EPA perspectives (see additional information below).

NACWA Leading Efforts to Develop Solutions

In the long-term, NACWA believes we must move beyond the current authorities in the CWA and develop a comprehensive, integrated approach to water quality improvement that will accomplish meaningful reductions in an equitable, proportionate, and responsible way. To be successful, such a program must require reductions from all sources of pollutants, including currently unregulated nonpoint source discharges.

NACWA is leading a group of stakeholders — including some of the organizations that recently wrote to you claiming that NACWA is “shirking responsibility for nutrient pollution” — to develop a set of principles for change that are designed to lead to the creation of an integrated approach to water quality. We are very optimistic about that work and continue to value our relationships with those groups on that effort. Certainly more time and significant energy will be needed to bring about this substantial change, but NACWA remains committed to moving forward in a collaborative fashion.

In the near-term, we must continue to make progress toward improving water quality and reducing nutrient discharges where necessary. NACWA believes there are numerous approaches that could be used to better and more efficiently establish protective water quality goals for nutrients and more effective and reasonable ways to meet those goals through the CWA's existing total maximum daily load (TMDL) and NPDES programs. We need smart solutions that can be implemented now as we continue to work on the broader clean water framework.

The development of these smart solutions is precisely why NACWA is convening a summit of the clean water community on September 16 and 17, in Chicago to hear from experts, state and federal leaders, as well as others, on the new and innovative approaches to nutrient control that are working now and those that hold promise in the near future. NACWA will generate a white paper based on the summit for use in initiating further dialogue with EPA and the states toward the development of scientifically sound and reasonable approaches to improving water quality with respect to nutrients.

Petitioners' Letter Offers No New Information, Mischaracterizes NACWA Position

The April 21, 2010, letter from Petitioners and other groups directly attacks NACWA's earlier letters on the petition. Petitioners, however, have offered no new information to address the concerns raised by NACWA and seek only to undermine NACWA's arguments for denying the petition. NACWA continues to believe that there are strong legal, technical and policy reasons to deny the petition and offers the following to address the three main arguments in the recent letter.

- I. *Cost Implications Important, But Not Primary Reason to Deny Petition* - Petitioners claim that the expense to upgrade wastewater treatment plants is the primary reason for NACWA's objections to modifying the definition of secondary treatment to include nutrient removal. Cost has been an element of NACWA's

arguments against the petition, but it is neither the most important nor the most compelling reason to deny the petition. We are not asserting that nutrient removal is “cost prohibitive” in all cases as Petitioners claim, but rather that costs imposed should result in commensurate environmental benefits. NACWA questions the cost and environmental trade-offs that would be made if the definition of secondary treatment is modified to include removal for nutrients.

Petitioners state that NACWA’s costs are “largely unexplained and entirely unattributed.” The cost to meet a certain level of nutrient reduction, however, cannot be easily estimated given the broad differences among wastewater treatment plants, the types of treatment units they may or may not be operating, existing excess capacity (which Petitioners claim can easily be used to meet lower nutrient levels, ignoring the practical reality that responsible utility planning must accommodate future growth and peak flows), and physical space limitations at the treatment plant for the addition of new treatment units.

Petitioners claim that Chesapeake Bay facilities can achieve enhanced nutrient removal for an average cost of less than \$17 million per significant municipal facility. Petitioners have simply divided a watershed-wide cost estimate of \$6.8 billion by the 402 significant municipal facilities that could be impacted.¹ Nothing about estimating the cost of nutrient reduction at a wastewater treatment plant is as straightforward as this simple division might imply.

NACWA is more than happy to provide additional, attributed examples of cost such as the following:

The Metro Wastewater Reclamation District in Denver, Colorado is a conventional secondary treatment plant treating 140 million gallons of wastewater a day. It discharges into the South Platte River, where it makes up about 85% of the flow for most of the year. The District has already begun to evaluate how it will need to modify its existing treatment plant to achieve TP levels of 0.135 mg/L and TN levels of 3.0 mg/L by 2028 (levels at or approaching the limit of technology), and has outlined a multi-phase upgrade project for its main treatment plant. The total capital cost currently estimated for the project in 2010 dollars is over \$1.1 billion dollars, with an increase in operating costs of more than \$19 million per year.²

EPA’s own documents, including the *Municipal Nutrient Removal Technologies Reference Document*,³ and NACWA’s technical white paper on the petition which it shared with EPA, have extensive, facility-by-facility information that demonstrates the costs of meeting a wide range of nutrient limits. These materials were and are available to Petitioners and the criticisms of NACWA in this regard are unfounded.

NACWA commends the efforts of many of the Petitioners to secure additional funding for the Clean Water State Revolving Loan Fund (CWSRF). Suggesting, however, as Petitioners do that the cost to

¹ U.S. EPA, The Next Generation of Tools and Actions to Restore Water Quality in the Chesapeake Bay: A Revised Report Fulfilling Section 202a of Executive Order 13508, at 31, September 9, 2009.

² Metro Wastewater Reclamation District, Email Communication with NACWA, June 2010.

³ U.S. EPA, Municipal Nutrient Removal Technologies Reference Document, Volumes 1 and 2, September 2008.

upgrade all the nation's wastewater treatment plants to remove nitrogen and phosphorus "can be defrayed" through this increase in funding is absurd. Following Petitioner's flawed logic, at \$17 million dollars per significant municipal facility (estimating approximately 4,824 facilities in the U.S. with flow greater than 0.5 million gallons per day⁴), the total cost to achieve only enhanced nutrient removal (generally viewed as: 4 to 6 mg/L total nitrogen and 0.25 to 0.5 mg/L total phosphorus) nationwide would be more than \$82 billion dollars. If the definition of secondary treatment were modified, meaning that every wastewater treatment plant would need to meet this level of nutrient removal regardless of size or location, this figure jumps to more than \$280 billion. Clearly even the \$2.4 billion per year in the CWSRF, which is distributed primarily in the form of loans and through a state prioritization system that may or may not have nutrient control as its top priority, is simply a drop in the bucket and must not be viewed as a solution to nutrient impairment challenges, let alone the hundreds of billions of dollars of other identified needs already facing the clean water community.

With federal funds falling well short of the documented needs, municipalities and the households they serve will bear the brunt of the costs to meet new regulatory requirements. Current regulatory demands on clean water agencies are already projected to bump up against community affordability levels in many cases and any new requirements must be carefully considered together with other regulatory demands being placed on clean water agencies.

NACWA appreciates the fact that there are numerous ways to improve efficiencies at the Nation's treatment plants and to look for new and innovative ways to offset our energy use and minimize our broader environmental footprint. Petitioners suggest, however, that by simply improving the efficiency of existing infrastructure, making better use of resources such as the methane generated by anaerobic digestion, and installing green infrastructure we will offset the increased power, chemical and other resource demands necessary for all wastewater treatment plants to remove nutrients to the levels contemplated in the petition.

As Petitioners' April 2010 letter illustrates, our industry is already making these investments to improve efficiency, harness wastes as resources (e.g., biogas) and explore new, green infrastructure approaches to how we manage wastewater. We are making these investments to help minimize our current environmental impacts. Additional controls will only add to the impacts we must work to offset. Unfortunately, these efforts are not without their own costs and utilities cannot simply undertake such initiatives without considering the larger picture of the environment and the public we serve.

- II. *Abandoning Water Quality-based Approaches Will Not Address the Underlying Problem* - Petitioners imply that NACWA is arguing for no nutrient controls for clean water agencies given their small relative contribution to the problem. This is simply untrue. Petitioners state that while nonpoint sources are important there is "no reason not to address the substantial nutrient pollution contributed by POTWs." NACWA has always maintained that the clean water community continues to stand ready to contribute its fair share to the nutrient solution. But Petitioners' over-characterization of the nutrient contributions of POTWs to the exclusion of focusing on more significant, currently under-regulated sources, is not productive to seeking meaningful solutions. Smart policymaking will not ratchet down

⁴ U.S. EPA. Clean Watershed Needs Survey 2004 Report to Congress, Appendix D – Database, January 2008.

on only the point sources without any plan for addressing the nonpoint sources. Doing so would lead to unreasonable and unwarranted controls and potentially a massive waste of taxpayer money.

Petitioners also note that “NACWA does not suggest any way that it or EPA will be able to do more to control nonpoint pollution in the immediate future.” The initiatives described earlier in this letter belie Petitioners’ claims in this regard. Moreover, by their singular focus on POTWs, it is Petitioners’ proposed action that lacks the kind of comprehensive vision that will be necessary to truly address the nutrients issue in many watersheds. Most obviously, Petitioners largely ignore the agriculture community beyond those industries already regulated (e.g., concentrated animal feeding operations), and provide no suggestion or path forward to address nonpoint pollution. NACWA is in fact working on both short and long-term efforts, as noted above, that seek to improve implementation of nonpoint source load allocations under the existing TMDL program and ultimately bring all sources of nutrients under the federal regulatory umbrella through more comprehensive legislative fixes.

Petitioners point to the recent State-EPA Task Group Report which included five tools that group identified as having “the most promise” to reduce nutrient loadings. Petitioners note that one of the five tools is nutrient control requirements through an update of the secondary treatment definition. Petitioners fail to mention, however, that one of the other five most promising tools is “nonpoint source regulation”.⁵ Petitioners, frustrated with their inability to successfully address nonpoint source pollution, have focused all of their efforts on point source contributions instead of trying to find ways to make the entire system work better.

NACWA disagrees with Petitioners that addressing nutrient pollution on a case-by-case basis has “failed.” Clearly the pace with which the water quality-based approach is working has not satisfied all stakeholders and it has certainly encountered its fair share of obstacles. But those obstacles generally are caused by the unique characteristics and behaviors of nutrients as states try to apply the CWA’s water-quality programs in the same manner as has been done for more traditional, toxic pollutants. Petitioners suggest that a technology-based approach will “achieve improvements in water quality” where the water quality-based approach has failed. Certainly we will see reductions in total nutrient loads to watersheds if all POTWs are required to remove nutrients to the levels contemplated by Petitioners, but many watersheds will still be impaired by other sources Petitioners have ignored and the benefit gained will not necessarily be commensurate with the cost of POTW upgrades.

The failures Petitioners point to in the current water-quality approach – states failing to develop numeric nutrient criteria and list nutrient-impaired waters – will not be addressed in any way by modifying the definition of secondary treatment. POTW contributions will be reduced, but many waters will still not meet standards, states will still be slow to develop nutrient goals (and may lose all motivation to develop such goals if the only controllable source is already regulated) and waters will still not be listed as impaired when needed. If these are the symptoms of the failing system, then we must work to fix the system. The system needs new approaches that can recognize the unique characteristics of nutrients as a pollutant. These new approaches will help to fix the root cause of the problem. Smart

⁵ State-EPA Nutrient Innovations Task Group. An Urgent Call to Action – Report of the State-EPA Nutrient Innovations Task Group, at 21, August 2009.

technology-based approaches may yet be part of the solution, but we must not short-circuit the necessary systemic approach simply to show that we are making progress on only one part of the system.

Finally, Petitioners note that what they have “merely requested” is that the minimum technological standards adopted by Congress be updated to include nutrients. They go on to state that the water quality program, as evidenced by the recent proposal of federal numeric nutrient criteria for Florida, may require POTWs to go well beyond the secondary limits Petitioners have proposed. This is the very situation that NACWA is concerned about should EPA update its definition of secondary treatment. POTWs will be required to invest billions of dollars to upgrade their plants to meet a technology-based standard, but will then need to potentially scrap those investments if the water quality-based program requires them to go even lower. Lower limits may require substantial reworking of existing nutrient removal or could require completely new processes depending on the target level. Given what’s at stake, NACWA believes that we must make these investments knowing what the ultimate water quality goal will be.

- III. *Petitioners’ legal arguments are also unavailing* – In essence, Petitioners urge EPA to ignore the CWA’s directives on technology-based standards for POTWs and to pretend that the Tenth Circuit’s decision in *Maier v. EPA*, 114 F.3d 1032 (10th Cir. 1997) does not exist. Despite these claims from Petitioners, EPA must instead determine its response to the Petition consistent with the limits Congress placed on secondary treatment requirements for POTWs, and the Agency must further act consistent with the *Maier* decision as the single available judicial opinion that addresses these requirements.

With regard to the CWA’s requirements for secondary treatment, Petitioners’ recent letter argues that Congress provided EPA with open-ended authority to define and re-define “secondary treatment” over time. This is simply not true. Instead, as NACWA’s prior correspondence points out, Congress originally established two phases of technology-based treatment requirements for POTWs – secondary treatment, to be followed later by best practicable waste treatment technology (BPWTT). Congress focused on BOD removal as the primary goal of secondary treatment and left more advanced treatment, including nutrient removal, to be accomplished by BPWTT. This two-phase structure was not unlike the phased approach enacted for industry, but with several key differences. The most important of these differences was that the advanced treatment technology for POTWs would be imposed on a case-by-case basis, unlike secondary treatment standards, in the interest of conserving public monies that were being used to fund the implementation of technology for POTWs over time. Thus, even if the BPWTT program had remained in place, and nutrient removal requirements would be on a facility-specific basis, based on local water quality needs.

Petitioners ignore and urge EPA to ignore the fact that Congress subsequently repealed the BPWTT requirements along with the funding mechanism originally established to pay for this case-by-case advanced treatment technology improvements at individual POTWs. Petitioners make clear that they object to the CWA structure and requirements that distinguishes between secondary treatment and advanced treatment, as established by Congress. However, their objections do not provide EPA with any authority to define secondary treatment to include advanced technologies such as nutrient removal. Petitioners are, therefore, incorrect in asserting that EPA has unlimited authority under the CWA’s secondary treatment provisions to “improve” on the definition of secondary treatment as long as it is “reasonable” or “economically practicable.” The statute contains no such directive to EPA.

With respect to *Maier*, Petitioners are openly dismissive of its central holdings, and therefore ask EPA to ignore this case. However, *Maier* makes it clear that EPA is not required to regulate nutrients under the secondary treatment provisions of the CWA. While Petitioners argue that *Maier* does not preclude EPA from regulating nutrients as part of secondary treatment, this argument presumes that Congress provided EPA such authority, as the above analysis shows is not the case. Moreover, Petitioners fail to acknowledge that EPA itself has previously relied upon the court's directives in deciding not to regulate nutrients under the secondary treatment requirements. EPA cannot ignore *Maier* in evaluating the current petition simply because Petitioners think it was wrongly decided.

Petitioners also argue that changes in the regulatory landscape subsequent to EPA's prior decisions not to include nutrients as part of secondary treatment justify a different result today. This argument also fails in part because it seeks to have EPA ignore the water quality authorities provided by the CWA. The assertion by Petitioners that EPA's water quality program is too weak or too slow does not alter what the law requires EPA to do with respect to water quality standards. Petitioners' reference to the Task Force report is also unpersuasive since that report fails to address the statutory limits on EPA's secondary treatment authorities as noted above.

Finally, Petitioners are incorrect when they argue that the factual predicate for EPA's prior decisions not to address nutrient removal as part of secondary treatment has changed. Contrary to Petitioners' assertions, EPA and the states have not decided that controlling nutrients at POTWs on a case-by-case basis is a failure – indeed, such requirements are being imposed in many jurisdictions on the basis of the CWA's water quality requirements. The EPA language cited by Petitioners in this regard demonstrates not that the water quality program is failing, but rather, that the heart of the problem – non-point sources – has not yet been meaningfully addressed. Mandating uniform nutrient controls on all POTWs under the guise of secondary treatment will not change this result. That fact alone highlights why Petitioners' desired outcome (further controls on POTWs) is an irrational solution to the problem of diffuse sources of nutrients that lead to widespread water quality challenges.

EPA is correct to continue viewing nutrients as a complex problem for which comprehensive tools and shared commitments are necessary if real progress is to be made with existing CWA authorities. As noted at the outset, NACWA is committed to being part of the solution, but not on the basis of imagined uniform technology requirements that Petitioners have attempted to graft onto the CWA's secondary treatment provisions without any legal or technical basis.

NACWA looks forward to continuing to work with you and your staff on addressing the Nation's nutrient challenges. Please do not hesitate to contact me should you have any questions about NACWA's position on these matters.

Sincerely,

A handwritten signature in black ink, appearing to read "K Kirk".

Ken Kirk
Executive Director

Letter to P. Silva on Secondary Treatment Petition
June 8, 2010
Page 8 of 8

cc: Ephraim King, U.S. EPA
Jim Hanlon, U.S. EPA
Mary Smith, U.S. EPA