Emerging Issues: Intersections of the Clean Water Act & Safe Drinking Water Act

White Paper

June 2006

I. Introduction and Background

There shall be no man or woman dare to wash any unclean linen, wash clothes . . . nor rinse or make clean any kettle, pot or pan, or any suchlike vessel within twenty feet of the old well or new pump. Nor shall anyone aforesaid within less than a quarter mile of the fort, dare to do the necessities of nature, since by these unmanly, slothful and loathsome immodesties, the whole fort may be choked and poisoned.

Lord Delaware's Proclamation for Jamestown, 1610

From the inception of the United States of America, the interplay of clean drinking water and wastewater has existed. For numerous years, the two primary programs regulating the discharge of pollutants to waterways and the provision of clean drinking water have been the Clean Water Act ("CWA") and the Safe Drinking Water Act ("SWDA"). Traditionally, these two statutory programs operated independently of the other, with different goals. The CWA acted as an environmental protection statute, seeking to meet its "fishable/swimmable" goal for all waters of the United States.[1] In comparison, the SDWA acted as a consumer protection statute, seeking to provide clean drinking water to its consumers at the tap. Programs under the two Acts historically have followed separate paths, often regulating the same pollutants in different ways. However, the two statutes are necessarily starting to cross paths. Water and wastewater issues are beginning to overlap in the real world, leading to greater potential for conflict between clean water and drinking water organizations. Surface water sources are subject to increasing demands to supply a growing population and other uses. Heavy water withdrawals for consumptive use result in decreased stream flows available for downstream dilution of wastewaters. Similarly, increasing quantities of domestic and other wastewaters are being discharged directly or indirectly to or near water supply sources, potentially adding increasing quantities of bacteria, nutrients and other substances to water supply sources. However, the same issues also lead to increased opportunities for cooperation and collaboration.

Along with competing demands for water sources, the SDWA is becoming a more holistic statute, adding an environmental protection component to its primary goal of consumer protection. This creates overlaps in programs and resources with the CWA. As will be discussed in greater detail below, the SDWA has undergone a metamorphosis over the past thirty-two years. Although performance standards will always be a major program of the SDWA, amendments to the SDWA and regulatory programs enacted over the past ten years reflect the SDWA's increasing focus on more holistic water management.[2] The additional focus of the SDWA emphasizes the interrelatedness of issues such as wastewater management and provision of safe drinking water. As a result, increased coordination among various programs is necessary.

New pollutants are emerging. Questions will arise over where responsibility should rest for removal of those pollutants. Some will argue that the best way to keep pollutants from

---

[1] Of course, the CWA does have a "public health" component as the CWA controls pollutants that may affect public health. *See* Statement by the President Jimmy Carter (December 28, 1997) at http://www.epa.gov/history/topics/cwa/01.htm. On signing of the CWA, President Carter stated "The bill also emphasizes the importance of controlling toxic pollutants which endanger public health."

[2] *See* SDWA § 1453.

threatening drinking water is to establish strict discharge limits and remove the pollutants at the wastewater treatment plant. However, placing all the responsibility on the wastewater treatment plant may not be appropriate or the most cost effective decision. Increased coordination to determine where a control or treatment technology makes the most sense and where the economics are most viable is necessary, as well as an acknowledgement of the technical capabilities of the drinking water and clean water organizations and the associated financial impacts on providers and their customers. Drinking water and clean water organizations can either seek to shift the regulatory burden to each other or come together to address contaminants and pollutants in a unified fashion, including collaboration on a watershed basis to address contaminants before they reach the drinking water or clean water facilities.

This *White Paper* presents a short discussion of the history of the SDWA and its transition over the past thirty-two years, focusing on the significant statutory and regulatory changes over the past ten years. Significant new programs will be highlighted to demonstrate the increasing overlaps with the CWA and the need for coordination and cooperation between clean water and drinking water organizations.

II. Safe Drinking Water Act Background

In order to have an understanding of where we are now with regard to the SDWA, it is important to understand the transformation that has occurred over time, adding an environmental protection component to its primary goal of consumer protection, creating a more comprehensive environmental protection statute.[3]

A. Maximum Contaminant Levels – The Cornerstone of the SDWA

The Safe Drinking Water Act, which was enacted in 1974, aims to ensure that public water systems ("PWS") meet national standards that protect consumers from harmful contaminants in drinking water.[4] The main vehicle for protection of public water systems is through the National Primary Drinking Water Regulations, which are health-based standards and are federally enforceable against PWSs.[5] The United States Environmental Protection Agency ("US EPA") has also promulgated National Secondary Drinking Water Regulations, which address aesthetic concerns such as taste, color and odor and are not federally enforceable, but rather are guidelines for the state.[6]

The National Primary Drinking Water Standards require compliance with Maximum Contaminant Limits ("MCLs") or treatment techniques for contaminants that may

[3] For a more extensive look at the SDWA through the years, see Frederick W. Pontius, *25 Years of the Safe Drinking Water Act: History and Trends* at www.epa.gov/safewater/sdwa25.html.
[4] A PWS can be either publicly or privately owned. A PWS is a drinking water system that provides water to the public for human consumption and has at least fifteen service connection or regularly serves at least twenty-five individuals at least 60 days out of the year. 40 C.F.R. § 141.1.
[5] SWDA § 1412; 40 C.F.R. Part 141. Regulations for state implementation of the National Primary Drinking Water Regulations are found at 40 C.F.R. Part 143.
[6] 40 C.F.R. Part 142.

have adverse effects on public health.[7] US EPA is required to establish a National Primary Drinking Water Regulation for any contaminant that "may have any adverse effect on the health of persons [and which] is known to occur or there is a substantial likelihood that the contaminant will occur in public water systems with a frequency and at levels of public health concern."[8] US EPA first establishes a nonenforceable Maximum Contaminant Limit Goal ("MCLG"), which is set at the level where "no known or anticipated adverse effects on the health of persons occur and which allows an adequate margin of safety."[9] The MCLG then serves as the basis for establishing the enforceable MCL, which must be set as close as feasible to the MCLG, within the limits of economic and technical feasibility.[10] The US EPA has established MCLs for ninety chemical, microbiological, radiological and physical contaminants in drinking water.[11] As will be discussed below, US EPA is conducting research and collecting information to determine whether currently unregulated contaminants pose a health risk and should be regulated in PWSs.

B. The 1986 SDWA Amendments

The establishment of MCLs got off to a slow start through the 1970s and early 1980s. From 1975 to 1985, US EPA developed standards for only 23 contaminants.[12] Congress, frustrated by US EPA's delay, along with concerns over microbial contaminants and increasing detection of synthetic chemicals, amended the SDWA in 1986. The 1986 Amendments sought to increase US EPA's pace in establishing drinking water standards, requiring US EPA to set MCLGs and MCLs for 83 named contaminants and to regulate an additional 25 new contaminants every three years, commencing in 1991. Perhaps one of the most important measures enacted as a result of the 1986 Amendments was the Surface Water Treatment Rule, which requires surface water systems to filter and disinfect their water to provide a minimum of 99.9 percent combined removal and inactivation of *Giardia* and 99.9 percent removal and inactivation of viruses.[13] The Total Coliform Rule was also enacted to prevent or eliminate microbial contamination within a distribution system, utilizing total coliforms as a surrogate for fecal coliform.[14]

---

[7] SWDA § 1412. Treatment techniques may be utilized by US EPA whenever it is not "economically or technologically feasible" to determine the acceptable level of a contaminant. SWDA § 1412(b)(7)(A).
[8] SWDA § 1412(b)(1)(A).
[9] SWDA § 1412(b)(4)(A).
[10] SWDA § 1412(b)(4). The SDWA defines feasible as the level that may be achieved using the best available technology, treatment techniques, sound science and other means that EPA finds are available, taking cost into consideration. When it is not technically or economically feasible to set an MCL or there is no reliable or economic method to detect contaminants in water, EPA instead establishes a treatment technique.
[11] 40 C.F.R. Part 141.
[12] *See infra* n. 1 at 7.
[13] 42 U.S.C. § 300g-1(b)(7)(C); 40 C.F.R. § 141.73.
[14] Under the Total Coliform Rule, total coliform is used as a surrogate to determine whether a water system may be vulnerable to pathogens. Total coliforms are used to determine the adequacy of water treatment and the integrity of the distribution system. If a system finds coliforms in more than 5% of the samples taken each month, the system must report the violations and take a number of actions to address the issue such as repairing equipment, flushing pipes or better protecting the source water. 54 Fed. Reg. 27544 (1989), promulgated at 40 C.F.R. Part 141. S*ee also* http://www.epa.gov/safewater/tcr/tcr.html#coliform.

C. The 1996 SDWA Amendments

Although the 1986 Amendments made great strides in the protection of drinking water, Congress identified continuing deficiencies with regard to the SDWA. Despite the mandate of the 1986 Amendments, by 1992, US EPA had issued regulations for only 76 of the 83 mandated contaminants.[15] In addition, Congress found that the numerous contaminant-specific standard setting requirements of the 1986 Amendments resulted in a "regulatory treadmill [which] dilutes limited resources on priority contaminants and as a consequence may hinder more rapid progress on high-priority contaminants."[16] The 1996 Amendments recognized the infeasibility of this rote method of establishing standards, eliminating the requirement to regulate 25 new contaminants every three years and enacting requirements to establish standards based on risk-based methods, focusing on highest priority chemicals. Further, for the first time, Congress added environmental protection as a tool to enhance the new area of focus to the SDWA's primary goal of providing safe drinking at the tap. These changes create a more holistic statute, focusing on prevention of contamination through increased understanding of drinking water sources and increased public information. It is with these 1996 Amendments that the intersection between the SDWA and the CWA starts to appear and increase through such programs as the Source Water Assessment Program, the Unregulated Contaminant Monitoring Program and the Long Term Enhanced Surface Water Treatment Rule.

III. New and Emerging SDWA Programs – Opportunities for Conflict or Cooperation

A. Source Water Assessment Program

More than any other program of the 1996 Amendments, the Source Water Assessment Program has one of the greatest impacts on changing the SDWA's largely "after-the-fact" regulatory focus into a environmental statute with an emphasis on understanding water resources and preventing contamination in order to further its primary goal of protecting public health. Under Section 1453, States were required to conduct an assessment program to: (1) delineate the boundaries of the areas providing source waters for public water systems; and (2) identify the origins of regulated and certain unregulated contaminants in the delineated area to determine the susceptibility of the PWS to such contaminants.[17] Source Water Assessments were required to be completed by 2003. Once the State had completed the Source Water Assessment, the State was required to make the results available to the public.[18]

To date, Source Water Assessments have been completed for practically all PWSs, generating a significant amount of information regarding surface waters used as a drinking water source.[19] Wastewater treatment facilities are often one of the contaminant sources identified on the Source Water Assessments. The Source Water Assessments are available on most state and

---

[15] *See infra* n.1 at 10.
[16] *See infra* n. 1 at 10, *quoting* Robert Perciasepe, former Assistant Administrator of US EPA's Office of Water, Congressional Testimony, January 31, 1996. House 1996 Safe Drinking Water Act Report No. 104-632.
[17] SDWA § 1453.
[18] SDWA § 1453(a)(7); 42 U.S.C. § 300j-13(a)(7).
[19] *See* http://www.epa.gov/safewater/protect.html.

water utility websites. In a February 8, 2003 Memorandum to EPA Regional Administrators, Tracy Mehan, the Assistant Administrator for EPA's Office of Water, declared source water protection as one of his top priorities.[20] In guidance, US EPA has indicated that the results of the Source Water Assessments should be used in conjunction with CWA programs such as the Total Maximum Daily Load and the NPDES permitting processes.[21] It may be anticipated that now the Source Water Assessments have been completed and been made available to the public and the importance of Source Water Assessments has been highlighted by US EPA, increased scrutiny will be imposed on the wastewater sources that discharge in the vicinity of a drinking water source. An understanding and awareness of this new information is critical in understanding the increased pressures that may be placed on clean water organizations. Also, the increased scrutiny may result in aggressive use of the CWA's authority to reduce contaminant loading that might otherwise have to be removed by a drinking water facility.

B. Unregulated Contaminant Monitoring Rule and Contaminant Candidate List

The 1996 Amendments eliminated the requirement that US EPA regulate an additional 25 contaminants every three years. Instead, starting in 1991, US EPA was required to implement a cyclical process to determine whether or not to regulate at least 5 contaminants, with a focus on the contaminants that present the greatest public health concern.[22] If US EPA determines to regulate a contaminant, US EPA then has two years after such determination to establish an MCLG and MCL. This evaluation process must occur with significant input from the scientific community and other interested parties. In addition, the SDWA establishes processes for increased understanding on the occurrence of contaminants and risks presented by those contaminants.

1. Contaminant Candidate List

The first step in the evaluation of new contaminants is established under Section 1412(b) of the SDWA, which requires US EPA to establish a Contaminant Candidate List ("CCL"). The CCL lists contaminants that, at the time of publication are not subject to any proposed or promulgated treatment standards, but are known or are anticipated to occur in PWSs and may require regulation. The CCL is the primary source of priority contaminants for US EPA's drinking water programs. The first CCL was published in 1998 and was composed of 50 chemical and 10 microbial contaminants and contaminant groups.[23] US EPA divides the contaminants on the CCL along three priorities: (i) priorities for additional research; (ii) priorities for additional occurrence data; and (iii) priorities for consideration for rulemaking. The second CCL was announced on February 23, 2005 and is composed of 51 of the original contaminants on the first CCL, including 9 microbial contaminants and 42 chemical contaminants.[24] The draft of the third

[20] *See* http://www.epa.gov/safewater/source/pdfs/mehan_swp_memo.pdf. The memo also identified CWA programs as some of the most important tools available for protecting drinking water from contamination.
[21] *See* http://www.epa.gov/safewater/source/chap5.html.
[22] SDWA § 1412(b)(1)(B)(ii).
[23] 63 Fed. Reg. 10273 (1998).
[24] 70 Fed. Reg. 9071 (2005). US EPA determined that sufficient information was available to determine that 9 of the original contaminants on the CCL did not warrant regulation and thus came off the list. The remaining

CCL is anticipated in late Summer 2006, with a final release in 2008. It is anticipated that this CCL may broaden the list of contaminants to include pharmaceuticals and personal care products.

2. Unregulated Contaminant Monitoring Regulation

To develop the needed "occurrence data" as identified on the CCL and to evaluate and prioritize these contaminants, Section 1445 of the SDWA requires PWSs to monitor their water supplies for unregulated contaminants. US EPA is required to publish a list of no more than 30 contaminants to be monitored and to establish a monitoring program for these contaminants. The Unregulated Contaminant Monitoring Regulation ("UCMR") establishes a cyclical process, with the first list of 26 contaminants published in 1999.[25] The second UCMR was released on August 22, 2005 and requires large PWSs to monitor 11 priority chemicals and also calls for a screening survey that applies to a smaller subset of PWS and requires monitoring for 15 other chemicals.[26] This second UMCR is limited to chemical constituents.[27] The data collected is used to assist US EPA in determining whether or not to regulate the contaminants and evaluating contaminants' occurrence in drinking water, as well as the potential population exposed to each.

3. National Contaminant Occurrence Database

The third tool established by the 1996 Amendments to the SDWA is the National Contaminant Occurrence Database ("NCOD").[28] The NCOD stores data on the occurrence of both regulated and unregulated contaminants, primarily using compliance monitoring detection data and information from the UCMR. The principal use of the database is to assist US EPA in making occurrence determinations that supports whether or not to regulate a certain contaminant.

As can be seen, the 1996 Amendments call for the identification and development of information on a large body of contaminants, including some of those contaminants that are subject to water quality criteria or sampling under the CWA. The combination of the occurrence information and information from the Source Water Assessment Program may influence effluent limitations and other permitting requirements under the NPDES program. As with the Source Water Assessment Program, the involvement of the scientific community and the public in the evaluation and standard setting process increases the scrutiny on an NPDES permitted source.

C. Microbial Contamination Programs

The greatest area of overlap for wastewater and water utilities is in the area of microbial contamination of waterbodies. Historically, programs under the two Acts have followed

---

contaminants remained on the CCL to allow US EPA to continue to gather information and data to support its standard-setting evaluation.

[25] The first UCMR Rule included 25 chemicals and one microorganism. 64 Fed. Reg. 50555 (1999).

[26] 70 Fed. Reg. 49094 (2005).

[27] This second UCMR does not include microbes as EPA did not finalize appropriate analytical methods to be utilized. It is anticipated that the third UCMR will include microbes.

[28] *See* www.epa.gov/safewater/data/ncod/index.html.

separate paths using differing indicators of contamination and differing treatment approaches. Concerns about future increases in microbial contamination prompts the need for a more unified approach to addressing microbial contamination. In January 2006, US EPA finalized two related drinking water protection rules, with the first aimed at reducing the risk of microbial contamination (primarily *Cryptosporidium)* from entering water supplies and the second rule requires water systems to limit the amount of disinfection byproducts in drinking water - The Long Term 2 Enhanced Surface Water Treatment Rule ("LT2 Rule")[29] and the Stage 2 Disinfection Byproducts Rule ("DBP Rule").[30]

1. The Long Term 2 Enhanced Surface Water Treatment Rule

The LT2 Rule, issued by US EPA on January 5, 2006, is focused on challenges faced by PWSs with the emergence of pathogens, such as *Cryptosporidium*, which are resistant to chlorination and may appear in highest quality source waters.[31] The LT2 Rule will result in increased information regarding the occurrence of *Cryptosporidium* and may result in significant capital expenditures as a result of the need for increased treatment. The LT2 rule may be divided into two phases – a monitoring phase and a treatment phase. The monitoring phase requires a PWS to conduct an initial two years of monthly sampling for *Cryptosporidium*. Based on the outcome of the monitoring phase, filtered water systems will be assigned to one of the multiple regulatory "bins."[32] Systems that fall into bins requiring higher treatment will be required to implement new treatment and management strategies. This increased awareness and potential capital expenditures required as a result of microbial contamination may find drinking water organizations lobbying their regulators to prevent microbial contaminant from entering the drinking water source through increased removal at the wastewater treatment facility. In addition, the information developed through the LT2 Rule may have impacts on the development and requirements of the *Cryptosporidium* water quality criteria being developed under the CWA.

2. Stage 2 Disinfection Byproducts Rule

Along with the LT2 Rule, US EPA promulgated the DBP Rule on January 4, 2006, which also focuses on issues associated with microbial contamination.[33] Certain disinfection byproducts may form in drinking water when disinfectants, such as chlorine, are used to control microbial contamination. These DBPs are formed when naturally occurring materials in the drinking water react with chlorine. Total trihalomethanes and haloacetic acids are widely occurring classes of DBPs formed during disinfection with chlorine and thought to be associated with increased cancer, reproductive and other human health risks. In 1979, EPA set an interim MCL for total trihalomethanes of 0.10 mg/L as an annual average. This rule, referred to as the "Total Trihalomethane Rule" applies to any community water system serving at least 10,000 people that adds a disinfectant to the drinking water during any part of the process. The Stage 1

---

[29] 71 Fed. Reg. 654 (2006).
[30] 71 Fed. Reg. 388 (2006).
[31] 71 Fed. Reg. 654 (2006). For additional information regarding the LT2 Rule, see www.epa.gov/safewater/disinfection/lt2/regulations/html#prepub.
[32] Unfiltered systems must provide at least 99 or 99.9 percent (2 or 3 log) inactivation of *Cryptosporidium*.
[33] 71 Fed. Reg. 388 (2006). For additional information on the DBP rule, *see* http://www.epa.gov/safewater/disinfect/stage2/regulations.html#prepub.

DBP, issued in December 1998, strengthens and enhances the Total Trihalomethane Rule by mandating enhanced coagulation to remove natural organic materials from systems that disinfect using chlorine and thus reduce the potential for DBPs to form.[34] The Stage 1 DBP Rule also set an MCL for certain DBPs based on system-wide running annual averages. The Stage 2 DBP Rule seeks to increase protections from DBPs. The Stage 2 DBP Rule requires each PWS to identify locations within its distribution system likely to have the highest DBP concentration. These locations will then be used by the systems as the sampling sites for compliance monitoring and compliance will be calculated for each monitoring location. Although the Stage 2 DBP Rule does not appear to directly overlap with issues faced by clean water organizations, it shows the increasing levels of treatment required by drinking water organizations to address microbial contamination and thus potentially increasing focus on clean water organizations. In addition, clean water agencies are facing their own unique challenges when protecting the public from disinfection byproducts prompting the need for increased collaboration with drinking water agencies.

IV. Current Controversies and Emerging Issues

A. Emerging Pollutants and Responsibility for Treatment

1. *City of Cincinnati v. Sanitation District No. 1 of Northern Kentucky* – Conflicts over *Cryptosporidium* Treatment Responsibilities

The SDWA and CWA tend to follow separate paths in the regulation of the same contaminants. Where the CWA path has not moved at the same pace as the SDWA path for certain constituents, conflicts may arise, as shown in a recent dispute between the Greater Cincinnati Water Works ("GCWW") of Ohio, which appealed the NPDES Permit issued to Sanitation District No. 1 of Kentucky.[35] As described above, US EPA has issued two regulatory measures to address potential risks posed by *Cryptosporidium* and pathogens in drinking water. The LT2 rule potentially may require PWSs to increase treatment for *Cryptosporidium*. Alternatively, on a separate track, US EPA is in the process of evaluating water quality criteria for *Cryptosporidium* under the CWA. Despite the fact that there are no numeric water quality standards for *Cryptosporidium* under the CWA, the GCWW's alleges that the NPDES permit was illegally issued because it fails to include effluent limitations for *Cryptosporidium* oocysts and *Giaridia* cysts, among other pollutants. In support of its position, GWCC refers to the LT2 Rule and its increasing treatment demands regarding *Cryptosporidium.* NACWA is positioned to file an *amicus* brief in this matter if the case progresses (currently the case is on hold). This case highlights conflicts that can arise over treatment responsibilities and increased capital costs that may be borne by drinking water organizations to meet new regulatory demands and prompts the need for increased cooperation and collaboration to prevent such conflicts from arising.

[34] 63 Fed. Reg. 69389 (1998).
[35] *The City of Cincinnati v. Environmental and Public Protection Cabinet and Sanitation District No. 1 of Northern Kentucky*, Petition for Hearing Commonwealth of Kentucky Environmental and Public Protection Cabinet File No. DOW-26767-039 (June 7, 2004).

2. Peak Flows and Potential Impacts on Drinking Water

The issue of treatment responsibilities also appears in the comments filed by the American Water Works Association ("AWWA") with regard to the peak flow blending policy.[36] The AWWA proposed several recommendations regarding the Blending Policy, all focused on concerns over pathogens and microbial contamination.[37] For example, the AWWA states that "Public water systems are particularly concerned that POTWs maintain adequate pathogen removal/disinfection of the blended effluent" in determining the "highest possible treatment" called for under the peak flow blending policy. AWWA also calls for increased evaluation of impact of blending on drinking water sources and increased requirements for timely notice to downstream users of a blending event. Thus, although AWWA did not express disapproval of the peak flow blending Policy, the letter clearly indicates that the AWWA is concerned about the impacts of peak flow discharges on its drinking water sources and highlights the need for increased dialogue regarding these issues on both a local and national level.

3. Pharmaceuticals and Personal Care Products – Emerging Treatment Issues

As analytical methods improve, allowing lower and lower detection levels for contaminants, new contaminants may start to move to the forefront for regulation, with pharmaceuticals and personal care products ("PPCPs") leading the charge. In 2002, the United States Geological Survey released a report documenting a study for PPCP chemicals in water sources. The study found that PPCP chemicals occur frequently at low levels in almost all waterways.[38] This increasing awareness of PPCPs in the environment led the US EPA to host a conference in 2005 to evaluate the state of the science and alternatives for addressing PPCPs.[39] At this time, most persons in the scientific and regulatory community agree that more research is necessary to evaluate the risks presented by PPCPs. As a result, there are no significant federal regulatory initiatives to address PPCPs in waterways, but those programs are anticipated to appear at some time in the future, calling on water and wastewater utilities to address the issue of treatment responsibilities and obligations.[40] Continued tracking of this issue and coordination with drinking water interests is warranted.

---

[36] The draft Blending Policy, entitled National Pollutant Discharge Elimination System Permit Requirements for Peak Wet Weather Discharges form Publicly Owned Treatment Works Servicing Separate Sanitary Sewer Collection Systems, noticed in 70 Fed. Reg. 76013 (2005).

[37] Letter from Thomas W. Curtis, Deputy Executive Direction, American Water Works Association to Kevin Weiss, Water Permits Division, Office of Wastewater Management, US EPA (January 23, 2006).

[38] Pharmaceuticals, Hormones, and Other Organic Wastewater Contaminants in U.S. Streams, 1999-2000: a National Reconnaissance, Environ. Sci. Technol. Vol. 36, No. 6 (2002).

[39] For additional information regarding this conference and issues presented by PPCPs, see NACWA's recent White Paper, *Pharmaceuticals and Personal Care Products in the Environment: A White Paper on Options for the Wastewater Treatment Community* (November 2005).

[40] As described in the PPCP White Paper, US EPA officials indicated that they may include some PPCPs on the third CCL due out in 2008, with a draft expected in late 2006. Additionally, of interest, GWCCC also alleged in its permit appeal that the Sanitation District No. 1 of Northern Kentucky's Permit failed as it did not include limitations for PPCPs.

B. Effluent Limitation Guidelines

Another area where drinking water facilities and wastewater treatment facilities may experience overlapping issues is in the development of Effluent Limitation Guidelines for Drinking Water Treatment Plants. US EPA is beginning a new rulemaking to address the direct discharge of drinking water treatment residuals to surface water, together with the indirect discharge of residuals to wastewater treatment plants. Drinking water treatment facilities currently have no consistent set of effluent guidelines to reduce or control pollutant discharges. These facilities may discharge chlorine, suspended solids, aluminum salts, organic matters, radionuclides, iron salts, polymer, lime, arsenic, desalination concentrates or other residuals. US EPA identified drinking water facilities as a candidate for national regulation in a 2004 assessment of all effluent guidelines and is in the process of collecting information on the processes and discharges from these facilities. At this time, US EPA has not made a final decision about whether any discharge controls are necessary for residuals produced by drinking water treatment facilities. Notice of a Proposed Rulemaking is planned for 2007.[41]

C. Reclaimed Water

"Reclaimed water" refers to recycled wastewater treatment to improve its quality. Reclaimed water can serve in many capacities where it is unnecessary to use high-quality (i.e. drinking) water. Nonpotable uses include irrigation, wetland restoration, industrial uses, fire protection, and car washes. Using reclaimed water typically is referred to as "water reuse." Water reuse eases pressure on water supplies and conserves potable water. Increased population and development have led some communities to supplement potable water resources with appropriately treated reclaimed water. Although most communities and states support the use of properly treated reclaimed water, the question becomes what is "proper treatment." In addition, wastewater treatment utilities may not have the resources to invest in reclaimed water treatment and distribution facilities. Public health officials may also be overly cautious about reclaimed water and the risk relative to the risk of aquifer/water supply depletion and surface water pollution. As the use of reclaimed water is ever increasing as a critically important part of the solution to the growing water supply and water quality debate, an integrated approach between drinking water and clean water interests increases in importance.

V. Conclusion

The SDWA is undergoing a transformation. What once was a consumer protection statute is undergoing a metamorphosis to include environmental protection as one of its tools to enhance its primary goal of protection of public health. Where the SDWA once was almost primarily focused on protection of drinking water provided at the tap, the SDWA now also focuses on prevention at the source, resulting in overlapping programs with the CWA. Programs that once followed separate and independent paths with different, but related, goals are starting to cross paths. US EPA's understanding of the interrelatedness of these two programs is emerging, with increasing emphasis on controlling pollutants on a watershed basis and integration of the SDWA and CWA programs. Both the SDWA's emerging source water evaluation programs and increased

[41] *See* www.epa.gov/waterscience/guide/dw/.

monitoring and treatment requirements are placing ever-increasing demands on drinking water organizations, in terms of both time and resources. As stresses on drinking water and clean water organizations increase, opportunities for collaboration between drinking water and clean water organizations increase. To facilitate cooperation, including the appropriate allocation of treatment responsibilities, clean water organizations and drinking water organizations should engage in dialogue over the issues presented herein and new issues as they emerge. Addressing the emerging issues in a collaborative watershed-based approach will enhance utilization of resources, protection of public health and protection of the environment. This dialogue may be most effective on a local level as that is where resources lie to address these issues. Increased coordination to determine where a control or treatment technology makes the most sense in terms of efficiency and economics is warranted on the local level. On a national level, NACWA and clean water agencies should continue to encourage US EPA offices to continue to work together to develop SDWA and CWA standards and identify appropriate distinctions.

National Association of Clean Water Agencies
1816 Jefferson Place, NW
Washington, D.C. 20036-2505
Phone: 202-833-2672
Fax: 202-833-4657
www.nacwa.org