

Association of State Drinking Water Administrators

**Testimony of Michael G. Baker
before the Senate Environment and Public Works Committee
December 8, 2009**

Who Are We?

The Association of State Drinking Water Administrators (ASDWA) represents the collective interests of the 50 state drinking water programs, the District of Columbia, the five territories, and the Navajo Nation in their efforts to provide safe drinking water to their citizens. State drinking water programs operate “source to tap” programs – implementing all relevant aspects of the Safe Drinking Water Act (SDWA) within their jurisdictions. (*The exception is Wyoming, which does not have “primacy” for directly implementing drinking water regulations within the state.*)

What are the Demographics of Water Systems in the U.S.?

To appreciate the challenge of ensuring compliance with the SDWA, it’s important to understand the universe of water systems to which the Act applies. Public water systems in the U.S. can be divided into two principal groups: *community water systems* serving cities, villages, counties and various types of residential facilities (of which there are approximately 50,000) and *non-community water systems* (of which there are approximately 100,000). Non-community water systems can be further subdivided into *non-transient* water systems (e.g. schools and manufacturing facilities) and *transient* water systems (e.g. restaurants and camp grounds). (Please see the definitions on the attachment for more complete information about demographics.) Most of the citizens in the U.S. receive their water from large community water systems, but the overwhelming number of systems are *small* (serving less than 10,000 people). This fact has real implications for the challenges that states, EPA, and water systems themselves face in complying with drinking water regulations. Thus, effective public health protection must involve strategies for both addressing the greater number of citizens served by larger water systems as well as approaches designed to help medium and small water systems comply with all applicable drinking water requirements.

How do States (and EPA) Ensure Compliance with Drinking Water Regulations?

Principal State Roles

State drinking water programs take their responsibility of ensuring public water systems are in compliance with drinking water requirements extremely seriously. States recognize the health and well being of their citizens and communities is dependent on receiving safe and reliable drinking water. In brief, this responsibility involves informing water systems of requirements; ensuring they have the capability to implement and comply with those requirements; and providing oversight to ensure they continue to comply. The overarching objective of states, in all of these efforts, is to get and keep water utilities in compliance, thereby protecting public

health. Ideally, this process occurs proactively on the part of water systems; however, if not, states will undertake an escalating series of compliance and enforcement actions to return a facility to compliance. Some further details about each of these activities are provided below:

- **Informing:** Most water systems do not read the *Federal Register* on a routine basis and many do not have full time staffs. Thus, states reach out to water systems to inform them of all applicable requirements. Many states also translate the Federal regulations into more user-friendly state-specific regulations and guidance documents. States may also include additional state requirements, beyond the Federal minimums.
- **Training/Technical Assistance:** States (along with technical assistance providers¹ and EPA) spend considerable time training water facilities to enhance their overall technical, managerial, and financial capacities to comply with all rules as well as providing rule-specific training, where appropriate. Proactive approaches to building this capacity, on the part of water systems, which helps ensure long term compliance, is by far the best and most effective approach to public health protection. Reactive approaches (after problems occur) tend to be expensive, time-consuming, and less protective of public health.

¹*Note: States are assisted in their efforts by technical assistance (TA) providers – either under direct contract to states or through national contracts. The principal TA providers are the Rural Community Assistance Partnership (RCAP), the National Rural Water Association (NRWA), and state affiliates of the American Water Works Association.*

- **Compliance/Enforcement Actions:** States spend a great deal of their time conducting on-site inspections and reviewing various water quality reports to ensure public water systems are complying with all drinking water requirements. When a system is not in compliance, a state will employ an escalating series of responses appropriate to the severity of the violation. For instance, minor infrequent violations can often be addressed by a phone call or letter. Ongoing, more serious violations warrant more serious responses – up to and including fines and penalties levied through Administrative Orders or Consent Decrees. These orders typically contain a date certain for coming into compliance with interim steps required by the water system – often associated with construction of new treatment facilities or enhancement of the treatment system.

Principal EPA Roles

EPA's Office of Ground Water and Drinking Water, together with the ten EPA Regional offices oversee the activities of the states in their respective regions in connection with compliance and enforcement activities. EPA is also engaged in each of the areas summarized above, in concert with their state counterparts. EPA (and EPA-funded Technical Assistance Centers) have been instrumental in providing outreach and training materials to help water systems understand their obligations in connection with particular rules or across-the-board capacity-building approaches. Rule training materials are most useful when they're provided "upfront" (i.e., at the same time or shortly after a new rule is promulgated) and EPA has been very attuned that need in recent years. For instance, EPA's Simple Tools for Effective Performance (STEP guides) have been extremely valuable outreach tools in explaining various aspects of the program to small water systems. Similarly, the Agency's Check-up Program for Small Systems (CUPSS) provides a

user-friendly computer program for small systems to assess their financial capacity and to undertake long range planning. EPA also provides (through their Office of Research and Development) information about treatment options and analytical methods that water systems may use to help comply with drinking water regulations. Finally, EPA holds states accountable for getting and keeping water systems in compliance and may elect to take enforcement action at a state's request, in those instances where a state is unable to take the requisite action as well as in the infrequent event a state fails to do so (referred to as "over-filing"). It's worth noting that states still expend significant resources even in those cases where EPA takes the lead for an enforcement case, since the state will typically have much of the site-specific information needed for case development.

Public Water Systems' Compliance with Regulations

Overall, public water systems do a very good job maintaining compliance with SDWA requirements. Community systems tend to do a better job than non-community systems and larger systems tend to do better than smaller. Larger community water systems provide safe drinking water as their principal function; thus, states are typically dealing with entities that are every bit as dedicated to provision of safe drinking water as are states. This often is not the case with certain smaller community systems (including manufactured home parks or community homeowner associations) and the many types of non-community water systems. Small water systems have poorer economies of scale and often lack in-house expertise for operating and maintaining water systems.

However, there are also some good success stories and models that can be cited (as summarized below). States are committed to safe drinking water for all consumers of water from public water systems – we do not support "lowering the bar" to allow two tier public health protection. Rather, we believe all of the "tools in the toolbox" should be brought to bear on these challenges. The small system variance provisions of the SDWA (that would allow for a less stringent regulatory level for certain small systems) should be a last resort under very circumscribed circumstances.

When a public water system has violations, a variety of approaches can be used to return them to compliance. These approaches generally fall into the following categories and can be taken proactively (i.e., in the absence of a formal enforcement action) or reactively (i.e., in response to an enforcement action).

- **Rule-Based Training and Technical Assistance:** Training on the specific requirements of particular regulations (by EPA, states, or technical assistance providers) – especially, where new, complex rules are promulgated (e.g., the Ground Water Rule).
- **Upgrading Existing or Installing New Treatment:** Installation of new treatment facilities where needed to reduce levels of a particular contaminant (or groups of contaminants). Grants and loans through the Drinking Water SRF, USDA, and HUD have been instrumental, over the years, in helping to build needed infrastructure. An encouraging phenomenon sometimes seen with new technologies is that costs may actually go down over time, as more treatment options become available and those

technologies are used on a more widespread basis (e.g., certain of the arsenic treatment technologies).

- **Enhancing Overall Water System Capacity:** Training and assistance (by states or technical assistance providers) of water system owners and operators to enhance the overall technical, managerial, and financial capacity of water systems. This includes ensuring proper certification of the system operator as well as education of Water Utility Boards or other governmental entities about the importance of adequately funding the operation and maintenance of their community's water utility. It also includes comprehensive management of utility assets and water pricing structures that reflect the full cost of producing and conveying water.
- **Managerial and/or Physical Consolidation:** To help improve economies of scale, some small communities have found it possible to physically integrate both their infrastructure and their managerial structure. In some cases, physical consolidation may not be possible, but managerial consolidation may still offer benefits and savings.

What are Some Good Examples of these Approaches being Effectively Used?

States use an array of approaches to ensure compliance with drinking water regulations and support water system needs. States' efforts have targeted particular technical, managerial, or financial needs of water systems to enhance their ability to achieve and maintain compliance with national primary drinking water regulations and to protect public health. These actions can be as simple as education and outreach to a community council or homeowner's association or as complex as advice about operation and maintenance of complex water treatment processes. For example, in my own experience, as the Ohio drinking water administrator, we undertook the following initiatives:

- We used a combination of outreach, technical assistance, financing and when necessary enforcement to achieve compliance with the new arsenic standard. In 2003 we had 153 public water systems with arsenic levels greater than 10 ug/l. We now have just 14 systems exceeding the MCL and all but two of those, which just exceeded the standard this year, are in some type of enforcement to return to compliance.
- A specific strategy being used in Ohio of which I am particularly proud is our efforts to ensure local decision makers have the necessary managerial and fiscal knowledge to maintain compliance with the SDWA. Co-sponsored by Senators Voinovich and Brown, Ohio EPA and the Great Lakes Rural Communities Assistance Program offered water infrastructure training seminars. These seminars were designed to equip community officials with the skill, templates, and informational resources necessary for placing utilities on a long-term path to success.

Other states can share similar success stories and I offer several below. The last three examples are but a few of the many recent examples of water utility compliance issues that are being effectively addressed through funding provided by the American Recovery and Reinvestment Act (ARRA).

- **New Hampshire's Drinking Water Program** performed extensive outreach and enforcement to educate water system owners, operators and small treatment firms on the most feasible and cost effective options to address the MCLs for arsenic and uranium. As a result, of the 205 systems with historical arsenic detections above the 10 ppb MCL, only 15 remain out of compliance as of September 30 2009, but all are on a schedule to address this contaminant, pending major infrastructure upgrades or funding assistance. For uranium, only 5 of approximately 40 systems with historical uranium above the 30 ppb MCL remain out of compliance -- all on schedules to address this contaminant within a short timeframe.
- **Kansas' Drinking Water Program** has instituted a statewide capacity development program called "KanCap" that provides training, outreach, and education to governing boards of small water systems. Over the past year, Kansas trained 102 individuals representing 56 public water supply systems. The drinking water program also has devised "Rate Check-Up", a rate-setting software tool that is available at no cost to public water supply systems. In FY 2009, 62 systems worked through the process to help them better manage and balance their financial conditions.
- **Massachusetts' Drinking Water Program** has created a mentoring group for contract operators (i.e., "circuit-riders") within the state that manage 220 systems. As a result, more than 400 of the state's open enforcement actions have been closed out. In a proactive effort to mitigate operator workforce shortages (15-20% retirements expected), the state has created a Drinking Water Operator Training Initiative to train the next generation of operators (200-300) for small water systems; provide them with practical field experience opportunities (10-20 state-supported internships); and establish positive relationships with the state regulatory agency. One of the principal areas of focus is on what and how an operator functions to help the water system with its technical, financial, and managerial capabilities to maintain public health protection goals and compliance with drinking water regulations.
- **Nebraska's Drinking Water Program** has used SRF set-asides to provide operator education, awareness, and technical assistance for smaller water utilities. This assistance has resulted in a consistent reduction of significant deficiencies in sanitary surveys (a comprehensive facility inspection done by states). In a five year timeframe, there has been a 60% reduction in deficiencies – from 1,330 in 2003 down to 530 in 2008.
- **California's Drinking Water Program** partners with assistance providers to help communities like Rainbird Valley work through rate setting exercises and roles/responsibilities training for Boards of Directors. This assistance has led to interest in forming a regional water supply entity in concert with 13 other local very small water systems. This consolidation will offer greater economies of scale; improve system operations and management; and collectively help the systems attain and maintain compliance.

- **Wisconsin's Drinking Water Program** provided a subsidized loan to the community of Suring, Wisconsin (a small disadvantaged community) that will enable the community to install an arsenic removal system and address a long-standing source of contamination. The project also includes a number of "green" elements.
- **Washington State's Drinking Water Program** provided a subsidized loan to the community of Skate Creek Terrace to enable the community to install corrosion control treatment, a new reservoir, and replace an aging water distribution system. The project will result in protecting customers from lead and copper contaminated water, as well as provide infrastructure that will ensure safe and reliable water in the future.
- **Ohio's Drinking Water Program** provided subsidized loans to the Village of Cumberland to enable this small Village to abandon their water plant and purchase water from the Village of Byesville. The Village of Cumberland is a disadvantaged community with a population of 402 people and a median household income of \$29,792 and simply did not have the ability to maintain their failing water system.

Elaboration on some of these examples and additional examples of state strategies to support water system needs, improve their capabilities, and enhance public health protection within their communities can be found as an appendix to this testimony.

Why Can't All Systems be In Compliance All of the Time?

One hundred per cent compliance by all public water systems with all drinking water regulations and requirements remains our ultimate goal. However, water systems face several challenges in achieving that goal. Sources of drinking water are often contaminated, to various degrees, as a result of point and nonpoint sources of pollution – consisting of both regulated and unregulated contaminants. Particularly challenging are contaminants, including nutrients, associated with non-point source runoff. Water facilities must then attempt to remove these contaminants, which can be both technically challenging and expensive. (Our funding recommendations below take this reality into consideration.)

Further, the number and complexity of drinking water regulations continue to grow as the complexity of the treatment needed to comply with those regulations. States oversee and water systems implement regulations addressing over 90-plus contaminants. It is not unusual for a large water system to have literally thousands of rule obligations over the course of a month with which they must comply and report. Thus, there are many opportunities for error to creep in, despite our collective best efforts. Overall, the SDWA regulatory implementation process works remarkably well, however, we continue to work in partnership -- EPA, states, water systems, and TA providers/consultants -- to get and keep water systems in compliance with all applicable rules.

What is the Role of Accurate and Reliable Data and Information?

Accurate and reliable information about state and national drinking water programs is a fundamental cornerstone of our collective efforts. Reliable data allows us to accurately set

priorities for compliance and enforcement activities and to know when these efforts have been successful. States expend considerable resources ensuring the data they collect, maintain and report is accurate and reliable. States are currently engaged in a workgroup with EPA to “drill down” into data reliability questions and issues to help address remaining data quality problems; however, it should be noted that as state resources become more strained it becomes more and more difficult for states to direct limited resources on data maintenance activities.

What Special Challenges Exist in Implementing Recently Promulgated Regulations (e.g., Arsenic/Radionuclides)?

Special challenges are associated with implementing new or revised rules. First, there is the challenge of fully understanding what the rule requires, at a particular water utility, in terms of monitoring and reporting. However, the most daunting challenge is often putting in place the necessary treatment to comply with the rule or augmenting existing treatment.

New arsenic, disinfection by-product, and radionuclide rules have been a particular challenge for many states due to the large number of small public water systems that, for the first time, are having to meet the more stringent standards. In many cases, these new standards have necessitated installation of treatment where there was no treatment before. Heretofore, many of these systems simply pumped and distributed ground water to their customers (with or without disinfection, depending upon the state and the water system in question). In addition, treatment to remove arsenic or radium (the principal contaminant of concern in the radionuclides rule) can be expensive. As time goes on, the range of treatment options has become more diverse and costs have tended to go down; but, these treatment options still represent a significant expense to small systems with fewer customers to share the costs. Safe disposal of the residuals remaining after treatment (particularly, where such residuals are deemed hazardous or radioactive) can also be expensive and extremely challenging. Operation and maintenance of these treatment systems often requires a level of expertise that may not exist in these water systems. Many of the various challenges associated with complying with new rules are also true of larger systems that serve considerable populations. While many of these systems may have full time staffs or consultants at their disposal, states must also be ensure that such systems take all appropriate steps along a path to compliance with the new rules.

What Special Challenges Exist in Implementing Regulations in Schools (especially the Lead and Copper Rule)?

Most schools are served by community water systems. While water that meets all of the requirements of the Lead and Copper Rule may be delivered to the school by the community water system, the school’s own water distribution system, water fountains, and restroom faucets may add unacceptably high levels of lead and/or copper to the water prior to consumption. In these cases, the community water system and the school need to work in tandem to address the problem – typically, by installing new plumbing devices and water fountains.

A relatively small minority of schools (typically, in rural areas not served by a community water systems) are themselves considered public water systems (they are deemed to be non-transient non-community water systems). Such systems face many of the same challenges of small public

water systems generally (i.e., lack of in-house expertise, poor economies of scale to provide a revenue basis for making needed improvements, etc.). State drinking water programs work directly with such systems (along with TA providers and consultants) to get and keep them in compliance with all applicable regulations.

The special sensitivities and susceptibilities of children to many contaminants also underscores the need, as described below under the emerging contaminants discussion, for an expeditious process for making regulatory decisions about contaminants of concern.

How Can Current Approaches be Improved?

We believe the best and most reliable approach to ensuring compliance is to work with water systems to enhance their overall technical, managerial, and financial capacity to get and stay in compliance. Helping these systems lay a strong foundation in these three areas will go a long way toward improving compliance with SDWA requirements. It is perhaps analogous to the classic example of providing a fish for a day versus teaching someone to fish. Enhancing water system capacity is like the latter, in that it provides a built-in ability to better ensure compliance over the long term. That overall result takes a concerted effort by EPA, states, and TA providers – adequate resources to do so. Our recommendations with regard to increased resources for states and an improved process for setting enforcement priorities are as follows.

Resource Needs (How Congress Can Help)

Congress is to be commended for dramatically increasing funding for the Drinking Water SRF. Congress appropriated \$2 billion in supplemental appropriations through the American Recovery and Reinvestment Act in FY 09 (on top of the baseline appropriation of approximately \$830 million) and about \$1.4 billion in FY 10. Those funding levels have had and will continue to have a major impact on the ability of states to provide funding to some of the most “needy” water systems. States will continue to strive to be wise stewards of those funds and work to address many long-standing public health problems. States will also coordinate with Federal and local officials with respect to other sources of funding, such as loans offered by the U.S. Department of Agriculture, to help address as many water system needs as possible.

We also appreciate Congress’ very substantial support for increased levels for the Clean Water SRF -- well beyond amounts dedicated to the Drinking Water SRF. However, we take note of the fact that both clean water and drinking water infrastructure “gaps” are roughly comparable and thus believe the Drinking Water SRF could be boosted even further to levels commensurate with the Clean Water SRF. We also recommend that more focus and accountability be placed on addressing pollution that contaminates sources of drinking water. For instance, Congress could add provisions to the Clean Water SRF that a certain percentage of the funds or funding priority be given to cleaning up or preventing pollution of drinking water sources. As an example of the connection between the two issues, a recent state-EPA report on nutrient contamination, “An Urgent Call to Action”, was clear in establishing the linkage between point and nonpoint sources of pollution and impaired sources of drinking water.

It's hard to get past resources when considering ways that Congress can help states directly. State drinking water programs have two principal sources of Federal revenue to administer their programs: the Public Water Supply and Supervision (PWSS) Grant and set-asides from the Drinking Water SRF. (These funds are supplemented, in many states, by state general funds and state fees for service charged to water utilities; these sources of revenue are used to fill the gap when Federal sources of revenue are insufficient for administering the program.) Of these two Federal sources, by far the more important is the PWSS grant. It is very flexible in its use and has been the principal Federal source of support. Set-asides from the DWSRF, while extremely helpful, have key "strings attached" under the terms of the SRF and can only be used for certain types of activities. These funds are also "in competition" with use of the funds for drinking water infrastructure and the percentages used for set-asides is often hotly contested within states. In some states, the SRF is administered by a separate agency and the drinking water Primacy agency has little or no access to set-asides. The PWSS grant has been "flat-lined" at roughly \$100 million for the past several years (on average, a wholly inadequate amount of about \$2 million per state). That appropriation was bumped up to \$105.7 million for FY 10, while the state drinking water security grant of \$5 million was zeroed out – thus, leaving a net gain of a meager \$1 million nationwide.

State drinking water programs are currently struggling with the combination of the national economic downturn, historically flat funding for the PWSS program, and severely constrained state general funds. These challenges have manifested themselves in hiring freezes in most states; positions not refilled (or, in some cases lost) as staff have left through attrition or retirement; no salary increases; severe travel restrictions; mandatory furlough days in many states; and, in some cases, required reductions in force. It is exceedingly hard, in that environment, to consider increasing and enhancing state compliance and enforcement efforts. States are doing a remarkable job, all things considered, and are carefully setting priorities to help ensure that public health protection remains preeminent. But, without question, if we are going to achieve our shared goals of increased compliance at our public water systems states need more funding and Congress could certainly help in this regard. The following is an excerpt from our written testimony to the Senate Appropriations Committee for Interior and Related Agencies for FY 10:

ASDWA respectfully requests that, for FY-10, the Committee appropriate funding for three state drinking water programs at levels commensurate with Federal expectations for performance and at levels that ensure appropriate public health protection. ASDWA requests \$200 million for the Public Water System Supervision (PWSS) program; \$1.5 billion for the Drinking Water State Revolving Loan Fund (DWSRF) program; and \$7 million for state drinking water program security initiatives.

New Approach to Establishing Enforcement Priorities (How EPA Can Help)

It also helps to have a predictable, well-conceived, and fair enforcement response to violations, as they occur. We believe a better approach than the current approach to establishing enforcement priorities should be put in place. The new approach should be one which directs enforcement resources to the most important problems. Fortunately, states and EPA have been working over the past year or so to put in place just such a system.

The highest priority enforcement cases are those facilities deemed to be in *Significant Non-Compliance (SNC)*. Heretofore, SNC criteria were established for particular rules, irrespective of the significance of that rule relative to other rules. A new approach, that states are anxious to pilot test and ultimately implement, would set enforcement priorities on a *facility basis*. In other words, the state compliance personnel would examine the number, type, and duration of all violations at a particular facility – assign point values for those violations and, if the number exceeded a particular threshold, the facility would be deemed to be in SNC. I would hasten to add that *any* violation of any rule warrants an enforcement response (again, escalating in severity of response to the gravity of the situation). However, the new SNC approach would be a better one for targeting state priorities.

What about Emerging Contaminants? How Should they be Addressed and How do States Help Ensure Protection of Public Health in the absence of National Regulations?

As mentioned before this Committee in testimony in May 2008, we believe the SDWA construct with respect to developing a priority list (i.e., the Contaminant Candidate List); making decisions or whether or not to regulate contaminants on that list; and using the SDWA criteria for developing new drinking water regulations is a sound one. We would not wish to see that construct replaced with disparate legislative mandates to regulate particular contaminants. However, we do agree that the process needs to work more expeditiously – particularly in connection with EPA’s review and evaluation of health effects data about particular contaminants. In the absence of expeditious decisions about contaminants of concern, states may develop their own regulations – and, some do. But, most states do not have the technical staffs nor expertise for these undertakings and rely entirely on EPA to make these decisions.

What are States’ Thoughts about Pending SRF Reauthorization Legislation?

States appreciate efforts of this Committee to re-authorize the CWA and SDWA State Revolving Funds. Overall, we support many of the changes developed by the Committee and believe if enacted will assist us in our efforts to establish more capable and sustainable public water systems. We would like to see a stronger statement of the states’ role in developing and implementing many of the proposed programs such as the grant programs for Critical Drinking Water Infrastructure, Reducing Lead in Drinking Water and the Program for Water Quality Enhancement and Management.

- We support the various changes that allow greater flexibility in state use of the set-asides (e.g., increasing the administrative set-aside from 4% to 6%; removing the 100% state match requirement for use of the 10% set-aside; and clearly indicating that the 15% set-aside may be used for source water protection activities). These are the very kinds of changes that will enable states to enhance their efforts to build water system capacity, as mentioned throughout this testimony.
- We strongly support the high priority assigned to public health protection and addressing compliance issues as a part of the state priority-setting process. That emphasis is entirely

consistent with the strong record of success of the SRF program in addressing some of the highest priority public health needs over the years.

- We fully support continuation of the disadvantaged loan program in the draft legislation and the option to extend that program to parts of service areas.
- We support consideration of green projects (e.g., water conservation/energy efficiency) as a weighting factor in developing intended used plans, as the current draft of S. 1005 provides and would not support a mandatory percentage.
- Finally, we appreciate the substantial increase in overall authorization of the DWSRF (\$14.7 billion from FY 2010 through 2014). That level of commitment from Congress is heartening.

Summary

As I hope I've made clear in this testimony, states take very seriously the challenge of ensuring compliance, on the part of public water systems, with all applicable requirements of the Safe Drinking Water Act. It's a challenging task that we undertake with our partners at the Federal, state, and local levels – and, much remains to be done. Fortunately, we have a solid record of success and a number of outstanding case examples to build upon. We also have a variety of effective tools that can be brought to bear on this challenge – from technical assistance and training to a range of enforcement tools. Federal funding assistance through the State Revolving Fund also undergirds our efforts – both in terms of support for infrastructure as well as set-asides available to states. But, I'd be remiss if didn't mention again that states are and have been extremely resource-strapped. Thus, we would very much appreciate Congress' help in redressing this imbalance so that states can carry out their responsibilities most effectively and fully realize the public health protection goals we all seek.

The vast majority of drinking water in the United States is safe and reliable. This is due to the dedicated people who operate the public water systems and the training and technical assistance they receive from states, in concert with our Federal and local partners. It takes constant and persistent attention and effort to maintain this high level of public health protection. The economic vitality and well-being of our country depends upon a sustainable supply of safe and reliable water, so funding safe drinking water is a sound investment. I appreciate the opportunity to offer this testimony to the committee and would be pleased to respond to any questions the Committee may have during my oral testimony.

Attachment 1

Public Water Systems Definitions & Demographics

(Data from 2000)

Public Water Systems are defined as providing water for human consumption through pipes or other constructed conveyances to at least 15 service connections or serve an average of at least 25 people for at least 60 days a year. EPA has defined three types of public water systems:

- *Community Water System (CWS)*: A public water system that supplies water to the same population year-round.
- *Non-Transient Non-Community Water System (NTNCWS)*: A public water system that regularly supplies water to at least 25 of the same people at least six months per year, but not year-round (e.g., schools, factories, office buildings, and hospitals which have their own water systems).
- *Transient Non-Community Water System (TNCWS)*: A public water system that provides water in a place where people do not remain for long periods of time (e.g., gas stations, campground, highway rest stops)

Number of Systems and Population Served:

(Note: populations are not summed because some people are served by multiple systems and counted more than once)

- 51,988 CWS served 292.3 million people
- 18,742 NTNCWS served 6.3 million people
- 84,149 TNCWS served 13.6 million people

Community Water System (CWS):

Sources of water:

- 11,671 systems relied on surface water, serving 204.1 million people
- 40,301 systems relied on ground water, serving 88.1 million people

System size:

- 22% of CWS are very large, large, or medium, serving 70% of those who get their water from a CWS
- 78% of CWS are small or very small, serving 30% of those who get their water from a CWS

Non-Transient Non-Community Water System (NTNCWS):

Sources of water:

- 688 systems relied on surface water, serving 788,360 people
- 18,041 systems relied on ground water, serving 5.5 million people

System size:

- 96% of NTNCWS are small or very small, serving 87% of those served by NTNCWS
- 4% of NTNCWS are medium, large, or very large, serving 13% of those served by NTNCWS

Transient Non-Community Water Systems (TNCWS):

Sources of water:

- 2,010 systems relied on surface water, serving 2,534,900 people
- 82,126 systems relied on ground water, serving 11 million people

System size:

- 98% TNCWS are small or very small, serving 81% of those served by TNCWS
- 2% of TNCWS are medium, large, or very large, serving 19% of those served by TNCWS

*Attachment 2***Examples of State Actions Taken to Assist Public Water Systems and Ensure Compliance with Drinking Water Requirements****STATEWIDE APPROACH IN NEW HAMPSHIRE**

The Problem: As of January 23, 2006, 72 New Hampshire water systems were serving water above the new 10 ppb arsenic standard, and 21 were serving water above the 30 ppb uranium standard.

The Approach: Between 2004 and 2006, the state did extensive outreach to the 200+ systems with historical arsenic results above 10 ppb which resulted in a great deal of compliance prior to the effective date of the regulation. After 2006, the state performed extensive outreach and enforcement to educate water system owners, operators and small treatment firms on the most feasible and cost effective options to address these contaminants. Specific elements of the approach included:

- Close state involvement in three EPA arsenic demonstration projects awarded to New Hampshire.
- Multiple technical seminars across southeast and central New Hampshire (i.e. high arsenic areas).
- Policy development for arsenic and radionuclides treatment residuals with state solid waste and radiological health departments.
- State treatability studies for low-cost treatment solutions.
- Geological studies for well borehole modification/alternative blending scenarios.
- Staff attendance at water system board meetings to educate on treatment costs and maintenance.
- One-on-one meetings with vendors, operators, and individual water system representatives.
- New laboratory procedure for arsenic speciation testing, a key factor in treatment effectiveness.
- The use of enforcement tools in cases where progress was not occurring.
- Close working relationship with the EPA regional office.
- A history of performing routine sanitary surveys at the state's 2300+ water systems which has resulted in an ongoing relationship with system operators and owners
- Partnering with technical assistance providers and academic resources.
- Extensive newspaper coverage of an arsenic occurrence study done by USGS and health effects research being performed at Dartmouth College.
- Widespread information (public service announcements, etc) about arsenic and radon via our private well initiative supported by EPA.
- A standardized, routine enforcement strategy that closely tracked and responded to lack of compliance.

The Results: As a result, of the 205 systems with historical arsenic detections above 10 ppb, 15 remain out of compliance as of September 30, 2009, but all are on a schedule to address this contaminant pending major infrastructure upgrades or funding assistance. For uranium, 5 of approximately 40 systems with historical uranium above 30 ppb remain out of compliance, again all with schedules to address this contaminant within a short timeframe.

WHITESTOWN, INDIANA

The Problem: A small town of 1500 had chronic problems with exceeding the disinfection byproduct MCL, Lead & Copper problems, frequent water main breaks, and customer complaints related to poor water quality and unresponsiveness of the town board.

The Approach: The Indiana Department of Environmental Management's Drinking Water Program Capacity Development staff met with town personnel to develop plans to lower the disinfection byproducts to *below* the MCL and to better understand other concerns. State program staff quickly realized that the town lacked the technical, managerial and financial capacity to work through their water quality problems. To help resolve *managerial* capacity issues, the state capacity development staff worked with the town to set up a complaint tracking system; devise a managerial chain-of-command between the utility and the town board; and create a new position for a utility manager to oversee both the drinking water and wastewater utilities. In the *financial* capacity arena, state staff facilitated discussions between the town and the DWSRF program and discovered that the town had been using incorrect budgeting practices and would not, unless the practices were corrected, qualify for loan assistance. The town has since self audited, rectified their financial practices, successfully applied for and been awarded a DWSRF loan as well as a grant from the Office of Community and Rural Affairs. *Technical* capacity issues were also addressed and correction plans were developed during meetings with the water utility. The community used an ozone treatment system that needed redundant components to meet proper operation and maintenance requirements. This was too costly for the town. State staff worked to help the utility rehabilitate old filters to augment those already in place. This was a very cost-effective solution that was approved by the town board.

The Results: The town now has a complaint tracking system to monitor customer concerns; they have hired a new utility manager to oversee the water and wastewater systems; they have reconfigured their financial practices to meet state requirements; and with the resulting DWSRF award, have returned to compliance for their DBP violations. As of the fall of 2009, the town disinfection byproducts levels remain below MCL values.

SUMNER COUNTY KANSAS RURAL WATER DISTRICT #7

The Problem: A small homeowners' association had repeated monitoring and reporting violations. The Kansas Department of Health and Environment could not identify a legal entity for enforcement action. The operator was unresponsive and no financial and managerial records could be located. Customers were unaware of problems with the water system.

The Approach: The Kansas Drinking Water Program contacted each customer to advise them of personal liability for pending enforcement and civil penalty actions, since no legal entity could

be identified. The state agreed to waive the penalty if the water system took appropriate corrective actions. Through the new system permitting requirements under the capacity development program, the state outlined the necessary process and actions – including formation of a legal entity under Kansas law. State capacity development program staff provided assistance with financial and managerial procedures. Kansas also provided technical assistance through the 2% TA Small System set-aside to help the system operator establish monitoring and reporting procedures to ensure compliance with drinking water regulations.

The Results: The community formed a rural water district to create a responsible legal entity; the system has implemented a monitoring plan to meet regulatory requirements; the district developed financial policies to ensure appropriate checks and balances; the district also developed management plans to ensure proper overall system management. The system has returned to compliance.

RAINBIRD VALLEY, CALIFORNIA MUTUAL WATER COMPANY

The Problem: The Rainbird Valley water system’s main well had failed. The small community was dependent on a backup well that was high in nitrates and low in water supply. Residents were forced to restrict water use in order to maintain adequate pressure and supply. The majority of residents are retired, live on fixed incomes, and could not afford repair assessments – particularly since the Mutual Water Company had just spent more than \$40,000 in reserves for water system repairs.

The Approach: An assistance provider (Self Help Enterprises) was called in to help. As a result of an emergency meeting, the community agreed to increase their rates and seek state and Federal funding to cover the repairs. The assistance provider found that with the rate increase (\$65/month), the minimum water fees would be more than 4% of the community’s median household income (\$19,265). This qualified the community for California Department of Public Health Emergency Grant funding assistance. The assistance provider and California Drinking Water Program staff worked to ensure that the community understood and could meet state contract requirements, obtain pump repair services, and restore water supply. This intervention also involved training the operator to resolve low system pressures and maintenance problems, such as security at well sites and leaking booster pumps. The assistance provider also worked with the water company’s Board to identify and take advantage of board and operator training opportunities provided by the state’s drinking water program.

The Results: Rainbird Valley now has repaired its main well and no longer must rely on a high nitrate water supply. The community has undergone a rate-setting exercise and successfully met state requirements for grant applications and funding awards. The operator has received appropriate training on technical, O&M, and water system security needs. The Board has applied for training by the state’s drinking water program on water system roles, requirements, and responsibilities. Finally, Rainbird Valley is investigating opportunities to form a regional water supply entity with 13 other water systems in the area. This would significantly increase operational efficiencies and economies of scale.

SKY VIEW COUNTY CALIFORNIA WATER DISTRICT

The Problem: Formerly known as Ponderosa Sky Ranch Water System, the water system had been in receivership for approximately three years. Concerned citizens had formed a county water district in an attempt to achieve local control of the system and bring it out of receivership. This required submitting a Change of Ownership to the California Department of Public Health and the Tehama County Health Department.

The Approach: The state's District Engineer reviewed the system's request and placed it on the Assistance Referral List which allowed assistance providers to work with the community. As part of the Change of Ownership process, the newly formed water district had to undergo a capacity development "TMF" (technical, managerial, financial) assessment. The assessment is used to evaluate whether the newly formed water district has an appropriate rate structure, a certified operator, appropriate permits for water supply, formal management policies and procedures, and other operating conditions to ensure that it can comply with all state and Federal drinking water requirements. The assistance provider facilitated this evaluation and the subsequent Change of Ownership application.

The Results: The TMF Assessment has been approved by both Tehama County and the California Department of Public Health Drinking Water Office. The Ponderosa Sky Ranch Water System has been removed from receivership and now operates as the Sky View County Water District. The District's Board of Directors is now investigating infrastructure funding opportunities (state and Federal) to fund improvements for the water system.

PLAINVIEW CALIFORNIA MUTUAL WATER COMPANY

The Problem: Aging and undersized pipes serve this small farmworker community. The California Department of Public Health had shut down one of the community's two wells due to nitrate MCL violations, detectable DBCP pesticide levels, and episodic occurrences of coliform bacteria. The community was faced by chronic leaks in the distribution system and water lines located in proximity to failing septic systems. The state subsequently had to issue a compliance order requiring continuous chlorination.

The Approach: Through an assistance provider (Self Help Enterprises), the community and the Water Company Board worked to identify funding to conduct a Preliminary Engineering Report; conduct a leak detection survey; and drill a water test well. The community successfully applied for \$294,000 in funding from the DWSRF and \$1 million from the USDA Rural Development grant program.

The Results: Because of the DWSRF loan and USDA grant awards, this community has drilled a new well which meets all drinking water standards; replaced the entire water distribution system which has stopped the loss of more than 58,000 gallons of potable water per day; and distanced water lines from septic tank leach fields. Installation of a backup generator, a sand separator, a new storage tank, and closure of the abandoned well are ongoing projects that will further improve public health protection in this small community. The assistance provider continues to work with this community to apply for HUD Community Development Block Grant funding for low income residents to be able to connect to the new water lines.

ROYALSTON, MASSACHUSETTS

The Problem: The town of Royalston built a new elementary school. The old school building (owned by the town) was rented to a private school. The town's Selectmen did not realize that the old school was a public water supply and made no provision in the lease for the renters to operate the system. Nor did the town include funds within its own budget. The Massachusetts Department of Environmental Protection Drinking Water Program was on the verge of issuing an Administrative Consent Order for failure to have a certified operator, failure to monitor, failure to submit annual reports, failure to submit the self-sanitary survey, and other drinking water violations.

The Approach: The Drinking Water Program Central Office referred the case to the state's regional capacity development program staff. The Regional staff immediately contacted the town and arranged to meet with the Selectmen. Subsequently, the capacity development staff was able to assist the town in completing and submitting required forms and reports and hiring a certified operator at an affordable rate. State capacity development staff continued to meet with the Selectmen to address ongoing concerns.

The Results: The Administrative Consent Order was not issued. The newly hired certified operator understood the proper monitoring and reporting schedules and the process for the sanitary survey. The state capacity development staff had left a detailed "to do" list with the town Selectmen which has been accomplished. The system has not experienced compliance problems since. The key was working with the town decision-makers to solve the technical problems and, once the immediate crisis was past, to provide financial guidance for an appropriate operating budget for the system.

DOWNIEVILLE CALIFORNIA PUBLIC UTILITY DISTRICT

The Problem: The District's surface water treatment plant could not achieve the required contact time (CT) for disinfection to comply with the Surface Water Treatment Rule. The District also had inadequate storage capacity. Downieville is the county seat for Sierra County which has a county-wide population of about 3500 people.

The Approach: The California Department of Public Health encouraged the water system to apply for DWSRF funding to construct a new water tank that would supply approximately 100,000 gallons of storage and increase the chlorine contact time. The water system's public health need and the national economic downturn presented Downieville with an opportunity to submit their project under the state's ARRA funding program. One of the state's assistance providers worked with the District to complete the application and state-required "TMF" assessment report.

The Results: The Downieville PUD was approved for ARRA funding to construct a 100,000 gallon steel storage tank. Upon completion, this tank will increase chlorine contact time and bring the water system back into compliance with state and Federal SDWA requirements.

STATEWIDE APPROACH IN IDAHO

The Problem: In 2006, approximately 50 systems were impacted by the arsenic rule.

The Approach: To assist public water systems with the new standard, the state used flexibilities such as formally allowing and writing rules for managed point of use (POU) treatment systems and providing extended timelines for compliance. The state has entered into enforceable schedules with nearly all systems impacted by the lower arsenic standard. Through the process, there have been systems that have either connected with another public water system or drilled private wells to deregulate. Even with the extended timelines and POU allowances, many systems are having difficulty meeting the timelines and obtaining adequate funding due to various factors.

The Result: Thirty-two enforceable orders were written, approximately 16 systems have installed POU devices to date (also for uranium), and 14 systems currently in various stages of the implementing the POU process. Three systems have deregulated with a few more in the process.