

NATIONAL DRINKING WATER ADVISORY COUNCIL

MEETING NOTES

MAY 27- 28, 2009

**W HOTEL
1112 4TH AVENUE
SEATTLE, WA 98101**

**PREPARED FOR:
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF GROUND WATER AND DRINKING WATER
1201 CONSTITUTION AVENUE, NW
WASHINGTON, DC 20004**

Members of the National Drinking Water Advisory Council (NDWAC) in Attendance

Gregg Grunenfelder, Chair, Assistant Secretary, Division of Environmental Health, Washington State Department of Health, Olympia, WA

Nancy A. Beardsley, Director, State of Maine's Division of Environmental Health, Maine CDC, Department of Health and Human Services, Augusta, ME

Jeff Cooley, Utilities Division Operations Manager, City of Vacaville, CA

Dennis Diemer, General Manager, East Bay Municipal Utility District, Oakland, CA

Timothy Kite, Water Superintendent, Long Creek Township Water Department, Decatur, IL

Olga Morales-Sanchez, Rural Development Specialist, Environmental Rural Community Assistance Corporation, Dona Ana, NM

Jennifer B. Nuzzo, Analyst, Center for Biosecurity, University of Pittsburgh Medical Center at Baltimore, MD

Douglas M. Owen, Vice President and Chief Technology Officer, Malcolm Pirnie, Inc., White Plains, NY

David Saddler, Manager, Water/Wastewater and Propane Department, Tohono O'odham Utility Authority, Sells, AZ

Duane A. Smith, Executive Director, Oklahoma Water Resources Board, Oklahoma City, OK

Lisa Sparrow, Chief Operating Officer, Utilities, Inc., Northbrook, IL

Carl Stephani, Executive Director, Central Connecticut Regional Planning Agency, Unionville, CT

Hope Taylor, Executive Director, Clean Water for North Carolina, Durham, NC

Brian L. Wheeler, Executive Director, Toho Water Authority, City of Kissimmee, FL

Bob Vincent, Assistant Bureau Chief, Environmental Health Division, Florida Department of Health, Tallahassee, FL

U.S. Environmental Protection Agency (EPA) Attendees

Pam Barr, Director, Standards and Risk Management Division (SRMD), Office of Ground Water and Drinking Water (OGWDW)

Cynthia Dougherty, Director, OGWDW

Steve Heare, Director, DWPD, OGWDW

Peter Shanaghan, DWPD, OGWDW

Paul Simon, Acting Deputy Director (OGWDW)

David Travers, Director, WSD, OGWDW

Designated Federal Officer (DFO)

Veronica Blette, Special Assistant, OGWDW, U.S. EPA

Centers for Disease Control and Prevention (CDC) Liaison

Dr. Max A. Zarate-Bermudez, Division of Emergency and Environmental Health Services, National Center for Environmental Health, Centers for Disease and Control and Prevention (CDC), Atlanta, GA

Science Advisory Board (SAB) Liaison

Jeff Griffiths, Director of Global Health, Tufts University School of Medicine

Members of the Public

Caroline Edwards, The Cadmus Group, Inc.

Vanessa Leiby, The Cadmus Group, Inc.

Ralph Jones, The Cadmus Group, Inc.

David Christensen, WA Department of Health
Denise Clifford, WA Department of Health
Loralei Walker, WA Department of Health
Gary Rhoades, Evergreen Rural Water of Washington (ERWoW)
Fred Sheldon, National Rural Water Association (NRWA)
Ed Thomas, NRWA
Mike Keegan, NRWA
Jim Wilson, Rural Community Assistance Corporation (RCAC)
John Kounts, Washington Public Utility Districts Association
Dave Monthie, King County, Washington
Ray Hoffman, Seattle Public Utilities
Liz Kelly, Seattle Public Utilities
Vincent Radke, CDC
Rob Greenwood, Ross & Associates
Dan Olson, EPA, OGWDW

**National Drinking Water Advisory Council
May 2009 Meeting Summary**

DAY 1 (May 27th)
(Agenda can be found in Appendix A)

OPENING REMARKS

Gregg Grunenfelder (NDWAC Chair) welcomed the group and initiated roundtable introductions.

Veronica Blette then welcomed the new members to the Council, which she described as a collegial group that brings people representing different viewpoints from across the country together.

Mr. Grunenfelder gave an overview of the agenda, explaining that the first day focuses on small system issues, while the second day will feature several EPA consultations.

FOLLOW-UP SINCE LAST MEETING

Cynthia Dougherty, Veronica Blette (DFO)

Ms. Blette referred to a table in Member's packets showing the status of the action items and recommendations from the previous meeting. She gave a brief overview of the status of the following items:

- The Council's letter on sustainable infrastructure was sent to the previous Administrator, but has not yet been sent to the new Administrator.
- The NDWAC Subgroup on full-cost pricing has met once, on May 26th, 2009.
- Andy Crossland of the Office of Wastewater Management (OWM) has convened several "mini groups" to discuss the interaction between local officials and public water utilities. Several NDWAC members participated in these discussions. Mr. Crossland is currently working with a contractor to compile the results of the meetings, which will be distributed to the Council.
- EPA is still considering holding the fall 2009 NDWAC meeting in Philadelphia, PA, to coincide with the American Public Health Association (APHA) meeting.
- A survey of drinking water security metrics was recently administered. The response rate for the first round was not high enough to make many conclusions on the status of the industry with respect to security. The survey will be done again; however, the preliminary report is available on the American Water Works Association (AWWA) Web site. A draft report of another survey, by other stakeholders (states, DHS, etc.) is also being completed. Ms. Blette will send both reports to the group.
- The Council's letter of recommendations for EPA to consider during the Geologic Sequestration (GS) rulemaking process has been sent to the Administrator.
- With respect to climate change, an issue on which the Council previously provided a letter of recommendation, EPA has formed a work group with state representatives to discuss water issues related to climate change. The Agency recognizes the need for coordination at the federal level on climate change initiatives.

Cynthia Dougherty added that since the last meeting, two major changes have happened at EPA: 1) the leadership has changed with the new Administration; and 2) the American Recovery and Reinvestment Act (ARRA) was passed.

She explained that the administrative transition at EPA is ongoing. Lisa Jackson has been appointed the new EPA Administrator. Her priorities include environmental justice and children, and she is committed to ensuring that all EPA decisions are driven by science and are within the rule of the law. Ms. Jackson's senior advisors include Bob Sussman (on regulatory issues not related to climate change) and Lisa Heinzerling (on climate change issues).

Some political posts remain to be filled, although nominations have been made for most. Bob Perciasepe has been nominated as the Deputy Administrator for EPA, and Pete Silva has been nominated as the Assistant Administrator (AA) for Water. Scott Fulton has been nominated as General Counsel for EPA. Ms. Dougherty expects these nominations to be voted on and approved within the next few weeks. In the meantime, Mike Shapiro has been the acting AA for Water, and Nanci Gelb has been the acting Deputy AA.

Ms. Dougherty is unsure where the previous EPA Administrator, Steve Johnson, is currently employed. The previous AA of Water, Ben Grumbles, is now the Director of Arizona's Department of Environmental Quality. Michael Deane has been named to a position at the National Association of Water Companies (NAWC).

ARRA was signed by President Obama on February 17, 2009, and appropriated \$4 billion for the Clean Water State Revolving Fund (CWSRF) and \$2 billion for the Drinking Water State Revolving Fund (DWSRF), along with some funding for tribal projects. The ARRA funds, which are in addition to the FY10 base program grants, have different requirements from the base program funds. The main objective of ARRA is to preserve and create jobs and to foster economic recovery. As such, under ARRA, priority is given to projects that are able to begin construction quickly. ARRA also requires that 50% of funds be given as additional subsidization and sets a goal for 20% of projects to be "green," defined as green infrastructure, energy efficiency, water efficiency, or environmentally innovative projects. State ARRA funds must be for projects under construction or with construction contracts in place within 1 year, or the funds will be reallocated.

Ms. Dougherty explained that EPA was proactive before ARRA was passed and was able to issue state guidance quickly, on March 2, 2009. EPA is now working to streamline the tracking process for ARRA monies, every dollar of which must be tracked.

The SRFs are making good progress moving the ARRA funds. To date, the CWSRF has awarded \$1.7 billion in ARRA monies, while the DWSRF has awarded \$900 million. One hold up has been that many states did not have the authority to provide additional subsidization, so state legislation was required. Also, a number of states wanted to conduct another solicitation for projects. For all states, the project applications far exceed the money available. Some states had been also been waiting to receive guidance on the Buy American provision.

The Office of Water published guidance on the Green Project Reserve (GPR) in mid-May 2009, specifying which projects would count as green categorically and which would require a business case (e.g., pipe replacement projects). Whole projects or parts of projects can count towards the GPR. Another ARRA provision is that projects must adhere to Davis-Bacon wage requirements. Although this has not been a requirement for water infrastructure previously, it is relatively straightforward to implement. ARRA also requires that recipients use iron, steel, and manufactured goods that are produced in the U.S. This Buy

American requirement must be implemented consistent with international trade agreements, although this will only be a potential issue for a handful of cities that are party to a European Union trade agreement. ARRA does allow for Buy American waivers, and EPA has recently issued guidance on the waiver process. Three national categorical waivers have been issued so far: projects that are refinancing debt incurred between October 2008 and February 2009, projects that put out to bid before February 17, 2009, and *de minimus* parts.

Ms. Dougherty added that the EPA Inspector General (IG) received \$20 million from ARRA and has started three audits associated with SRF money. The IG does not want to get in the way of projects moving forward, but it wants to investigate some issues early on.

EPA's 2010 budget includes significant increases in funding for the SRFs, demonstrating a commitment by the President to fund water infrastructure, and legislation reauthorizing the SRFs is currently moving through Congress. Also affecting the water program is current legislation on chemical security, climate change, and GS.

Timothy Kite stated that previously there was significant amounts of red tape for energy efficiency upgrades in water infrastructure projects and asked if the red tape has been removed from the ARRA funds.

Ms. Dougherty said that energy efficiency window and door upgrades might qualify as a "green" project in some states. She added that some states are giving 100% subsidy for certain projects, while others are combining ARRA and base program funds.

Mr. Kite then asked if the FY10 budget included earmarks. **Ms. Dougherty** responded that it is likely that the budget will include earmarks, although neither the House nor the Senate has moved forward with a bill for the 2010 appropriation.

David Saddler asked if the SRF reauthorizations will include the Davis-Bacon wage requirements. **Ms. Blette** said that the Senate bill included Davis-Bacon, but she is unsure what will happen when the bill gets to the floor. **Ms. Dougherty** added that the House and Senate reauthorization bills included different aspects of the ARRA requirements.

Mr. Saddler said that the increased accountability with the ARRA funds is an issue for some communities. Communities are concerned when they hear that every dollar must be identified and tracked. He then asked how the "jobs created" will be determined.

Ms. Dougherty stated that the Council of Economic Advisors is developing a formula for jobs created for each state based on funds spent. States are being asked to provide, at the project level, the number of paid hours. States will need to verify the data received from subrecipients. For ARRA reporting, EPA has tried to expand the existing benefits tracking system to collect the required ARRA information. The tracking system has been beta tested. The Office of Management and Budget (OMB) is developing a master data system to track ARRA funds at the project level across the whole government. EPA hopes that the SRF information collected can be fed into OMB's system, which should be up and running in October 2009.

Mr. Grunenfelder said he appreciates the FY10 budget increase for the SRFs, as there are never enough funds to meet the demand. He stated that it is worrisome that the green project requirement in the Senate version of the SRF reauthorization bill will take away funding from public health-focused projects.

Mr. Grunenfelder then asked if there has been any movement within the Office of Research and Development (ORD) to establish a comprehensive health effects research agenda in light of the Council's recommendations. **Ms. Dougherty** answered that ORD is developing, with Office of Water (OW) input, a multi-year plan on human health and water research.

Pam Barr said that OW is trying to engage ORD at the staff level. With the third Contaminant Candidate List (CCL3) about to be finalized, now is a good opportunity to draw attention to OW research needs. She added that ORD is a large organization, and she is unsure if the traction is there yet.

Mr. Grunenfelder suggested having someone from ORD talk to the Council at the fall 2009 meeting about how they are addressing research needs and priorities.

Ms. Blette commented that the new head of ORD, Paul Anastas, used to work at EPA and is likely to understand the concerns of program offices. **Ms. Dougherty** added that the director of the Office of Science and Policy at ORD, Fred Hauchmann, also understands the water perspective.

Ms. Blette then asked if any Council members had encountered issues with ARRA at the state or local level.

Mr. Grunenfelder complimented EPA for issuing sound guidance on ARRA quickly. Washington conducted a new solicitation for the ARRA funds, and the demand far exceeded the available funds.

Mr. Saddler said his water system is receiving ARRA funds from the tribal set-aside. He encouraged EPA to look into the Davis-Bacon requirements, which can increase a project cost significantly. There is an issue with what wage scale within Davis-Bacon is used (residential, commercial, etc.). It might be helpful for EPA to issue guidance on which scale should be used for which projects.

Lisa Sparrow stated that several of her investor-owned water systems have applied for ARRA loans in different states. She said that while there has been good guidance at the Federal level, there are complications at the state level, as each state has its own requirements. Some states have imposed further restrictions on the funds; for example, some states are not providing additional subsidization for investor-owned utilities. It has been difficult for Ms. Sparrow's utility to take advantage of the ARRA funds.

Jeff Cooley stated that his utility applied for an ARRA loan through the DWSRF. His system was listed as 830 in the priority list and only the first 85 projects received funding. He commented that after being denied a loan, many utilities feel discouraged from applying again.

Douglas Owen asked if, given the discrepancy between the demand and the available funds, EPA has been able to profile or characterize the need. **Ms. Dougherty** replied that the Council of Infrastructure Financing Authorities (CIFA) is working with the Association of State Drinking Water Administrators (ASDWA) and the Association of State and Interstate Water Pollution Control Agencies (ASIWPCA) to get a handle on the types of projects and amount of need. Thirty states have submitted information to date, which also is of interest to Congress. **Ms. Blette** added that both SRFs conduct Needs Surveys, but these do not reflect the current need, which is an important piece of information.

Mr. Saddler said that because of the "shovel-ready" requirement, he has heard that most of the ARRA funds are going to urban water systems. **Ms. Dougherty** responded that this is untrue, and many large systems are complaining that they are not receiving loans. Also, some states have limits on how much they can fund for a single project, which restricts funding for some projects in large, urban systems.

Mr. Kite commented that his system is currently going through a legislative grant process. The system asked for \$1 million, but only received \$400,000. Because it did not receive enough grant money, the system will have to cancel the project. Mr. Kite stated that grants need to fund the entire request, as many systems do not have the funds to make up the difference.

Mr. Cooley added that the top project on California's project priority list (PPL) was a small, out-of-compliance system. There were several projects for Los Angeles on the list as well.

Ms. Dougherty commented that states have been struggling with how to prioritize all the demand.

SMALL SYSTEMS ISSUES—INTRODUCTION OF SUBJECT

Paul Simon (IO)

Paul Simon explained that EPA's FY10 budget calls for the "equitable consideration of small drinking water system customers." EPA's goals for this NDWAC meeting are for the Council to learn about EPA's small system programs and policies, and for EPA to understand the Council's concerns and recommendations on how EPA can meet the budget commitment. Ninety percent of the nation's drinking water systems serve fewer than 10,000 people, although 80% of the nation's population is served by larger systems. Small water systems are mostly local government-owned, typically have few employees, and many do not treat their water.

The Safe Drinking Water Act (SDWA) 1996 Amendments included provisions to grant variances to small systems that cannot afford to comply. When promulgating a rule, EPA must identify affordable treatment technologies or variance technologies that protect public health. The current policy determines affordability by comparing the total household treatment costs for the existing regulations to total household treatment costs for all regulations including the new regulation. A variance is triggered if the new regulation increases the total treatment costs by more than 2.5% of median household income (MHI).

In 2002, EPA asked for NDWAC advice on the affordability methodology for small systems. A 2003 NDWAC report recommended using an incremental threshold, triggering a variance if any one standard has treatment costs equal to 1% MHI. The report stated that variances should be a last resort, favoring alternative compliance options instead.

SMALL SYSTEM VARIANCES

Pam Barr (SRMD)

Ms. Barr gave an overview of the current small system variance policy. The variance process begins with EPA's affordability determination, after which the state determines if it wants to issue small system variances, for what systems, and at what level. In 2003, NDWAC recommended revisions to the variance methodology, including changing the affordability threshold to an incremental increase of 1% MHI. The NDWAC report advocated that EPA and states avoid issuing variances and advised EPA to augment the incremental cost increase approach with consideration for the cumulative compliance costs. The report also recommended several strategies to improve affordability, including financial support and public education. In a 2006 *Federal Register* notice, EPA requested comments on two key issues: the affordability threshold and variance technologies. Roughly 12,000 comments were received, mostly from letter-writing campaigns and mostly opposed to the proposed revisions. The biggest issue raised was concern for public health protection under variance technologies. Many comments also inquired why EPA had not included NDWAC's recommended affordability threshold.

In May 2009, EPA held a public meeting to discuss tools and measures to meet the FY10 budget commitment. In general, meeting attendees agreed that there is no easy solution to the issue of small system affordability. Some attendees advocated for bottled water as an alternative to variances. Other issues that were raised included the use of point-of-entry (POE) and point-of-use (POU) devices as variance technologies, the concept of public education as a variance, concern from equipment manufacturers that innovation will be stymied, and a discussion of what constitutes “protective of public health.”

Ms. Barr asked the Council if they had any further recommendations beyond the 2003 recommendations, including what variance technologies should be considered and under what circumstances EPA should consider a variance technology to be protective of public health.

Mr. Grunenfelder said he has a difficult time understanding how an adjustment to a Maximum Contaminant Level (MCL) is just as protective of public health, when EPA goes through a long process to develop rules and set MCLs.

Ms. Barr clarified that EPA does not assert that a higher MCL under a variance is *equally protective* of public health, it is just protective.

Ms. Dougherty added that EPA is required to develop a MCL Goal (MCLG) and that the MCL is then set as close to the MCLG as feasible for large systems while still being protective of public health.

Ms. Barr commented that when the 1996 SDWA Amendments were being discussed, Congress thought that available “off the shelf” variance technologies would be available, but few have been found. EPA has also found that simply using a compliance technology less effectively does not reduce the cost substantially.

Ms. Dougherty added that Congress included household POU/POE systems as a compliance technology during the 1996 SDWA Amendments, to increase available affordable technologies for small systems. However, they have not been used as frequently as was expected.

Mr. Grunenfelder stated that one resistance to using POE and POU devices is the issue of who will manage the units over time. He asked the group if they foresee large systems that take over small systems managing POE and POU devices.

Mr. Kite mentioned that his system is concerned that, for example, under the Lead and Copper Rule (LCR), they are responsible for the condition of a customer’s faucet when it is out of his utility’s control. He noted that his system was going to take over a smaller system, but opted out because of the system’s many problems.

Mr. Saddler said that before the Phase II/V rules were promulgated, he brought up the affordability issue to EPA Region 9, but it was not well received. From a business standpoint, a large system assuming the liability of a small, problem system does not make good business sense. Responsibility for the operation and maintenance of POE/POU devices is an issue, as is how much education to provide homeowners, and how to prevent children from drinking out of non-treated sources (e.g., a hose). Also, system consolidation depends on economies of scale, which are not always there. There are also issues with using bottled water as a variance technology. For example, who will underwrite the cost and the cost of litigation, and what is the backup if the supply of bottled water breaks down? All the costs of treatment need to be considered in the cost of compliance.

He reminded everyone that the same affordability issues being discussed now had been discussed previously, and encouraged the group to review the NDWAC 2003 report. There is huge variability in MHI across the country, so affordability cannot be judged using one MHI. MHI must be regionally-specific, although this will be more difficult to regulate. EPA Regions should work with states to develop the appropriate MHI.

Ms. Dougherty clarified that variances allow a system to meet a different standard than the regulation for a period of time while exemptions allow a system to take additional time to come into compliance.

Dennis Diemer stated that small system affordability is a real issue that needs to be solved. He added that even within a large, urban water system that, overall, has a high MHI, there are likely subsections that have the same problems as small, rural drinking water systems. Mr. Diemer's main concern is how, if the Agency's priority is safe drinking water, there can be different standards for different sized systems and provide the same level of protection. There is no "magic" technology for small systems. EPA and states need to look at exemptions, encourage consolidation where it makes sense, and provide funding for small systems to make the necessary improvements. Bottled water and POE/POU devices can be solutions. Mr. Diemer said he is confident that systems can figure out how to implement POE and POU devices.

Ms. Sparrow stated that her utility would not want to maintain POE/POU devices, and if the homeowner was responsible for maintaining the device, then the role of the utility may change. Ms. Sparrow commented that she would be surprised if, when the management is factored in, POE/POU devices would actually be cheaper. Ms. Sparrow's systems provide both potable and reclaimed water, and through education, customers understand which water they can consume. She has found that customers that grew up in areas with plentiful water are less appreciative of reclaimed water than those who grew up in water-poor areas. Ms. Sparrow agreed that affordability is best assessed at a regional level. She further stated that she has a difficulty with the idea that affordability compromises safety. Ms. Sparrow agrees that the solutions lie in consolidation and the resulting economies of scale.

Brian Wheeler commented that he operates water systems of every size, and one system has used POU devices as a treatment technology. The system had an issue with disinfection byproducts, and the system decided to place carbon filters on the customer's faucets as a solution. The filters were in place for 3 years. Before installing the filters, a system representative sat down with the homeowners and, every 3 months, the homeowners received a new filter in the mail. The customers were not required to install the filters, but 95% did. The system's economic analysis found that it was cheaper to use POU devices than install new centralized treatment.

Mr. Wheeler continued, stating that variances set a standard based not on system size, but on community composition. It is unfair to allow a lower health standard for poorer communities. One way to deal with affordability concerns is to target resources to help poor communities meet the standards.

Mr. Saddler added that if variances are allowed for some systems, they should be available for all systems. Also, states have the option to implement variances as they see fit and can be stricter than the federal requirements.

Ms. Barr clarified that state policies must be at least as stringent as the federal policies.

Jeffrey Griffiths noted that water systems are heterogeneous, and one solution does not work for all. A mixture of new technology and variances might work. He suggested that ORD research novel treatment technologies appropriate for small systems.

Mr. Cooley said there is a need for action on this issue. The goal of SDWA is to provide safe drinking water. Safe drinking water needs to be defined, and then EPA, states, and systems need to work out the details on how to provide it for everyone. Mr. Cooley expressed concern over how long this issue has been discussed with little action.

Bob Vincent commented that bottled water is not cheap, nor is it easy to distribute quickly. When considering POE and POU devices, the full cost must be considered, including administrative costs, added sampling, and ground truthing. There are also associated liabilities that must be considered. The State of Florida has sampled many private wells and, as a result, placed POE or POU devices in thousands of homes.

Olga Morales-Sanchez stated that New Mexico is “very paranoid” about POE/POU devices, as some control must be turned over to the water user. She agreed that a double standard for drinking water is not appealing.

Hope Taylor stated that variances are not appropriate and do not provide adequate public health protection. She advocated for the “ultimate consolidation” that would make it economically feasible for all systems to provide safe water. In unusual circumstances, EPA could provide grants for centralized treatment, POU devices, or the development of a new source. Ms. Taylor agreed that there should be a research initiative to make treatment technologies more affordable. She added that with all the externalities associated with bottled water, it should only be used on a short-term basis.

Mr. Kite said that many small water system operators are not educated and not properly trained. They need the help of the National Rural Water Association (NRWA) and its state counterparts to obtain the training they need to convince their local government to invest in the water system. Mr. Kite supported the continued government funding of these organizations.

Duane Smith said that, as a regulator, he has noticed that small or rural systems have a fundamental disbelief that EPA is protecting public health. When systems see the connection, they are supportive. Many systems think the arsenic standard is more stringent than necessary and include line items on bills like, “unfunded EPA mandate,” to cover the compliance costs. Mr. Smith agreed that MHI should not be averaged for the whole country and that affordability should be addressed by states. There should not be different standards for rural and urban areas. Oklahoma has a rural development program that uses existing financing systems to benefit disadvantaged systems.

Mr. Saddler said he disagreed with Mr. Kite’s comment on the quality of water operators in the U.S. It is not operators who need education, it is local government officials. Mr. Saddler also suggested that housing agencies need to ensure that the local PWS is compliant before building development and should tie the capital investment to bring the system up to the standard into the development cost.

Mr. Owen agreed that, from a private citizen perspective, having different levels of public health protection is not appealing. When providing assistance, it is important to consider future affordability and how the community can remain viable over the long term.

Ms. Sparrow echoed the need to transition to sustainability “for the long haul.” Transparency of the true cost of safe water is also essential.

Ms. Morales-Sanchez told the story of a poor community of 48 connections in New Mexico that had contaminated drinking water that would require \$6 million in capital improvements. This would require

customers to pay \$120 per month for water, which was cost-prohibitive. She commented that POE/POU devices are usually specific to one contaminant and encouraged ORD to look at cost-effective devices that would treat for multiple contaminants.

Ms. Taylor supported research on new POE/POU technologies as well as water harvesting strategies. She agreed that transparency is important.

Mr. Griffiths commented that this issue has existed for at least 30 years, and it would be nice to “get it off NDWAC’s plate.” With the new administrator focused on environmental justice, and the current recession creating a need to get people back to work, there might be an opportunity now to move forward on the issue.

OTHER TOOLS TO HELP SMALL SYSTEMS

Steve Heare (DWPD)

Steve Heare gave a presentation on the many other tools, outside of variances, available to help small systems. Due to their size, small systems have unique challenges. Available tools under SDWA include the DWSRF, which provides substantial assistance to small systems; capacity development; operator certification, which was supported by the one-time Expense Reimbursement Grants (ERGs); and technical assistance provided through congressional earmarks. In addition, EPA has developed many products to help small systems, including the Check Up Program for Small Systems (CUPSS) asset management software, and many training and guidance materials. In a May 2009 stakeholder meeting, EPA received feedback that the current DWSRF process is burdensome and that the program should prioritize sustainable systems and encourage consolidation. Comments on the capacity development and operator certification programs emphasized the continued need for small system training and public education.

Mr. Wheeler commented that although the DWSRF could provide incentives to consolidate, there will always be a disincentive because consolidation reduces state funding for the Public Water Supply Supervision (PWSS) Program. He added that Florida is working with organizations such as the state Department of Labor and AWWA to train operators.

Nancy Beardsley said that, at a recent meeting she attended, a staff person from Region 1 mentioned EPA grants for states to implement training and asked if this was a nationwide program. **Mr. Heare** replied that it is not.

Mr. Saddler stated that it might be wise to develop incentives to encourage large systems to mentor or consolidate small systems, despite potential liabilities.

Mr. Grunenfelder added that Washington has a Water System Acquisition and Rehabilitation Program that provides grant incentives for large systems to partner with small systems. Between this grant and DWSRF loans, troubled systems can be rehabilitated on the condition that the system will be owned and managed by the larger system. The program has been very successful, but there is not sufficient funding to meet the need.

Ms. Blette concluded that incentivizing consolidation is best addressed on a state-by-state basis. States can prioritize funding for consolidation, give additional subsidization, or give funding for large systems to take over small systems. It is unlikely that states will be allowed to give part of the DWSRF funding as grants for consolidation, however.

Ms. Dougherty added that EPA can share state practices that are effectively encouraging consolidation. Also, the DWSRF has a provision to provide additional subsidization for small, disadvantaged systems, but it is not used by many states. EPA might want to evaluate differences between states that have used this authority and states that have not.

Ms. Beardsley said that Maine provides disadvantaged assistance, which has allowed many systems to receive funding that would otherwise not be able to afford a loan.

Mr. Grunenfelder said that Washington has not provided disadvantaged assistance in the interest of keeping the funds sustainable. The state may reconsider this decision if SRF funds are reauthorized.

Mr. Saddler commented that a consistent approach might be good. **Ms. Dougherty** replied that Congress decided to let states have a choice in how to run their programs.

LOCAL PERSPECTIVES ON SMALL SYSTEM NEEDS

Denise Clifford (WA Office of Drinking Water), Fred Sheldon (Evergreen RWA)

Denise Clifford described how the State of Washington addresses small system needs. Washington has two regulatory frameworks: Group A systems, which meet the SDWA definition of a public water system (PWS), and Group B systems, which fall below the SDWA threshold. Small systems in Washington are falling behind, with many compliance issues and large infrastructure needs, and the state legislature views small systems as a “resource sinkhole.” The legislature asked the state Office of Drinking Water to develop recommendations for how the state could help these systems. The recommendations included an initial need to reduce the number of PWSs through regionalization and consolidation, supported by additional funding and incentives (possibly through the DWSRF). Additional recommendations included the need for water systems to have an ownership structure that “positions them for success,” improved oversight of system finances, an alignment of resources to assist systems in need, and a strengthened legal framework to address failing systems. The Office of Drinking Water is currently working with the state government and systems to implement these recommendations.

Fred Sheldon then discussed the role of the Rural Water Association (RWA) in Washington. RWA has a good relationship with the primacy agency in the state and works closely with other technical assistance providers. Prior to funding cuts, RWA had a circuit rider who visited all the Group B water systems. Other circuit riders visit Group A systems to talk with operators and local governments and provide free and paid on-site training. In addition Washington’s RWA is trying to start an emergency response program, training staff in how to operate generators and connect them to pumps and how to manage an emergency. In Washington, as in all states, more requirements are being mandated “from above” but fewer resources are being provided to implement these requirements. Local governments do not listen to operators, are reluctant to raise rates, and have political sensitivities. Technical assistance providers, such as RWA, and states need more funding.

Mr. Grunenfelder commented that although Washington is trying to reduce the number of small systems, the state will always have many small systems. Technical assistance providers are an asset and will always be a big part of the solution for small systems.

Ms. Sparrow noted that water systems can consolidate responsibility without a full takeover. She asked for additional information on economic regulators in Washington. **Ms. Clifford** replied that Washington has a Utility and Transportation Commission (UTC), but it only regulates 64 companies and about 250 water systems. Some companies do not charge sufficient rates to avoid meeting the regulatory threshold that requires oversight by the UTC.

Ms. Sparrow observed that if a water system is properly regulated, the ownership should be irrelevant. Privately-owned systems may have more incentives to be environmentally responsible. She added that regulation is most successful when the economic and environmental regulators work together closely.

Mr. Grunenfelder clarified that most of the privately-owned water systems in Washington are mobile home parks or small homeowner associations; there are very few companies that own water systems.

Mr. Kite asked who monitors private wells drilled next to a water system with contamination issues. **Ms. Clifford** replied that private wells are regulated at the local level, but most communities do not regulate them.

Mr. Kite then stated that in Illinois, systems had to pay a fee based on the number of customers to join RWA. His system opted out of RWA after it grew to a certain size because of the fees.

Mr. Sheldon concurred that there is a fee to join RWA that is determined by each state association. **Gary Rhoades** of Evergreen Rural Water of Washington (ERWoW) noted that there is no national RWA fee, just a membership fee. Systems do not have to be members to take advantage of RWA's free programs.

Max Zarate-Bermudez asked how Washington defines a failing system. **Ms. Clifford** responded that there is no common definition. Generally, a system is failing if it cannot meet water quality or other requirements. The state offices keep data on water quality and use a compliance checklist to assess how systems are doing.

In response to a question about the definition of Group B systems, **Ms. Clifford** explained that these systems generally have 2-14 connections and a population under 25. These systems have very few regulatory requirements. Roughly 20 states have a similar category of water systems with varying levels of oversight.

Ms. Taylor said that although over 30% of North Carolina's population depends on private wells, only the new wells are tested. The state provides consolidation incentives for large for-profit utilities to take on "troubled" small systems, but not for large public systems to manage them, in either a decentralized or consolidated manner. Ms. Taylor noted that management is not always improved when small systems are taken over by large, private companies, as these companies are not held accountable for improving service and water quality.

Ms. Clifford reiterated that the small, private water systems have the most problems and the large, private water companies are generally well managed.

In response to a question on variances based on affordability, **Mr. Sheldon** replied that he supports these variances for both large and small communities.

Mr. Smith commented that many people do not believe in the science behind some regulations, which affects views on variances. **Mr. Sheldon** agreed, adding that he does not agree with the standard for arsenic.

Mr. Cooley said he appreciates RWA's training, explaining that his system is trying to be more selective in which training the operators attend. He asked if there is a way to judge the results or outcome from trainings. He mentioned that Mississippi gives operators a grade in each of the areas of capacity: technical, managerial, and financial, which helps target training.

Mr. Saddler commented that the industry needs to get past issues with the arsenic regulation and focus on upcoming contaminants, wastewater issues, and revised enforcement strategies. Affordability will be an issue irrespective of new regulations – it may just be that resources may be needed elsewhere in a community.

SUSTAINABILITY AND RATES

Peter Shanaghan (DWPD)

Peter Shanaghan thanked the NDWAC members who participated in the previous day's full-cost pricing discussion. The FY10 budget language asks EPA to develop a "sustainability policy" for sustainable pricing to encourage conservation and funding for long-term needs. EPA is working with a group of stakeholders to develop a draft policy by Labor Day. EPA will seek broader input during a June 30, 2009 webinar. There is a connection between the sustainability policy, affordability, and variances. The President is willing to invest in the SRFs, but the programs need strategic direction that they will be helping systems become more sustainable.

To frame a discussion on water system sustainability and rates, Mr. Shanaghan first passed out a packet of papers on individual topics related to the issue of full-cost pricing, including facts about the drinking water industry, which is very diverse. The full-cost pricing subgroup identified the desired outcome of full-cost pricing as common tier health protection for all and sustainable water systems, defined as systems that are consistently able to deliver a particular level of service, providing water that is safe, compliant, affordable, and delivered in an environmentally sustainable and economically efficient manner. There are many pathways that systems can follow to arrive at this outcome, but the pathways have the following common elements:

- *The DWSRF*, which provides water systems access to capital and, potentially, subsidies.
- *Information and knowledge*, which includes training, technical assistance, and products.
- *Restructuring*, which involves systems finding new and different ways to work together to find economies of scale (e.g., remote monitoring technologies).
- *Local decision making*. The choice of a pathway must be a local decision. The challenge is to help system managers and customers understand their options.
- *State "primacy."* Full-cost pricing needs to be orchestrated at state, not national, level.

COUNCIL DISCUSSION ON SMALL SYSTEMS AND SUSTAINABILITY

In response to Mr. Shanaghan's definition of water system sustainability, **Mr. Smith** added that the sustainability of a community needs to be considered as well, as it is interrelated to the water system's sustainability.

Mr. Vincent commented that it is difficult to define sustainability and affordability in a dynamic climate. **Mr. Shanaghan** agreed, but noted that sustainability implies the ability to adapt to changing circumstances.

Mr. Wheeler stated that leadership and management are key players in a sustainable system.

Mr. Cooley said that water systems are unique because there is so much local control. He agreed that one model does not fit all systems. Ensuring that decision makers have the tools they need to make informed decisions is essential. Also, systems may need to move between different pathways as leadership changes.

Mr. Diemer commented that the subgroup did an excellent job of identifying the key elements of water system sustainability. However, any of the elements are just snapshots, while sustainability means the ability to fulfill the elements over the long term. If a water system's infrastructure is in good shape today, but the water system is not investing in that infrastructure, that infrastructure becomes an "unfunded liability." If water systems are not investing in climate change adaptation, they are building up unfunded liabilities. Risk management is also important, in terms of how much risk, and in what areas, water systems are willing to take on.

Mr. Grunenfelder asked if EPA is trying to identify performance measures for water system sustainability and the success of the policy.

Rob Greenwood, of Ross & Associates noted that measurement is one of five keys to management success in the 10 Attributes of Effectively Managed Utilities document. **Mr. Wheeler** noted that the types of potential measures are becoming better known – and that, at least in the wastewater industry, they are trying to push their use out.

Mr. Grunenfelder then asked if there are measures that can be measured statewide or are they really focused on individual systems. **Mr. Wheeler** said he envisioned an outcome whereby water systems could be graded on different attributes of sustainability and communicated to the public in their Consumer Confidence Report (CCR). Although controversial, a similar practice has helped make changes in the Florida school system.

Mr. Kite said that CCRs do not receive much attention, so rating a water system in the CCR may not generate much attention.

Mr. Smith asked if Mr. Shanaghan sees the sustainability policy driving funding for the DWSRF. **Mr. Shanaghan** replied that it is an interesting concept but does not fit with the law as currently written.

Ms. Blette added that one of the DWSRF reauthorization bills adds priority points for sustainability, but the bill will likely go through many iterations.

Mr. Smith recommended leaving environmental sustainability out of the three areas of sustainability, as states are wary of EPA interfering with states' rights with regard to water rights.

Mr. Owens argued that a sustainable water source is at the heart of a sustainable water system.

Ms. Blette suggested that instead of using the term "environmentally sustainable," the policy could call for a water supply that is consistent with the state water plan.

Mr. Wheeler added that water resources are one of the 10 attributes of effectively managed utilities.

Ms. Taylor said her organization has been raising the concept of a 'water conservation utility' to both water providers and policy makers in North Carolina, noting that there is a need for independent technical assistance and more conservation/efficiency directed funding that can pay for itself in utility savings. This will help avoid some potential conflicts of interest, even in publicly owned water systems, in how water infrastructure decisions are made that increase public debt, and the affordability of water.

Mr. Diemer noted that, in the West, water mining is part of the sustainability discussion but is politically charged.

Mr. Grunenfelder said he is leery of tying DWSRF funding to sustainability, as poorly managed systems may need the funding more. A DWSRF loan may help them become more sustainable.

Mr. Wheeler noted that sometimes the DWSRF priority system “rewards” bad behavior; projects at the top of the priority list may have been waiting for a bail out.

Mr. Kite argued that systems in violation need resources.

Ms. Morales-Sanchez agreed that if DWSRF eligibility is tied to sustainability, long-term sustainability needs to be considered.

Mr. Shanaghan raised the subgroup’s concern that additional sustainability requirements may increase the red tape associated with a DWSRF loan.

Ms. Blette read the group the language on sustainability in the draft DWSRF reauthorization. **Mr. Shanaghan** commented that the draft language prioritizes systems that have made progress.

Mr. Cooley noted that the worst systems typically get DWSRF funding. There needs to be a mechanism to tie the funds to leadership and measure progress. Requiring sustainable practices ahead of time will not work.

Ms. Morales-Sanchez commented that it is difficult to create a sustainable system without sufficient funding.

Mr. Saddler said that sustainability, affordability, viability, and equitability are all interrelated. With the correct process in place, the industry can work towards a common goal that addresses all of these.

Given discussions during the day, **Mr. Grunenfelder** asked the group if they felt a need to revisit the Council’s previous work on affordability.

Mr. Diemer asked if the 2003 NDWAC report included a discussion of double standards of health protection. **Mr. Griffiths**, a member of the NDWAC subcommittee that wrote the 2003 report, replied that the report includes concern about double standards, which the NDWAC group discussed at length. The report asks EPA to rethink the variance approach.

Mr. Diemer commented that there is a distinction between expressing concern and strongly feeling that there should be only one standard, which was expressed during this meeting’s discussion.

Mr. Saddler said that regional discrepancies need to be incorporated into the affordability discussion. Also, variances need to be available to all systems, regardless of size. There need to be incentives to consolidate as well as outreach, consumer training, and technical assistance.

Ms. Barr said that the NDWAC report recommended a national threshold for variances, which is in keeping with the statute. States ultimately determine which systems receive variances, which could incorporate regional affordability concerns.

Ms. Dougherty added that it is infeasible to add regional affordability considerations at the federal level. She noted that the variance threshold has never been exceeded.

Mr. Saddler reiterated that a threshold based on an MHI that is not representative of the country is not equitable. Affordability will also be an issue related to climate change. Mr. Saddler recommended that EPA Regions have the discretion to determine the appropriate affordability for their region.

Ms. Barr asked if the group wished to follow up on the affordability threshold.

Mr. Wheeler recommended that NDWAC go to Congress and raise the issue that public health protection cannot be achieved if there are variances. There needs to be a process for how to bring struggling systems into compliance.

Ms. Dougherty commented that it is difficult to distinguish between the “have nots” and the “could have had”—some systems have not raised their rates in 35 years.

In response to the fact that the current variance threshold has never been met, **Mr. Saddler** said that a threshold based on regional equitability would occasionally be triggered.

Ms. Barr added that, according to EPA’s analysis, the 1% incremental trigger recommended by NDWAC would also occasionally be triggered.

Ms. Blette summarized the group’s discussion: everyone in the country should be afforded the same public health protection. If a system cannot afford to meet the standards, then EPA needs to look at the tools available to help the system. There will always be some systems that cannot afford to comply.

Ms. Barr said it would be helpful to receive a recommendation from the Council on what it means to treat systems equitably.

Ms. Blette added that states can evaluate affordability, regardless of EPA. If no changes are made at the federal level, affordability will still be addressed at the state level.

Ms. Taylor said she supports nationwide affordability criteria coupled with tools to help systems that cannot meet the standard come into compliance, perhaps through incremental adjustments toward the public health goal.

Mr. Simon summarized that the Council does not want to change the current affordability threshold, but would like EPA to focus on tools (e.g., capacity building, financial assistance, etc.) to help systems come into compliance.

Mr. Smith said that variances should be the last option after every other tool has been used. He noted that if a water system finds a contaminant at a level that is within the margin of error from the standard, it does not make sense for EPA to require the system to invest in additional treatment. Variances could be within the margin of error.

Mr. Owen disagreed because it would be difficult to draw a line for such variances.

Mr. Diemer added that if small systems would be allowed contaminant levels with an error band, would large systems be allowed to as well?

Ms. Sparrow suggested separating the issues. The first issue is related to health, and no one on the Council believes there should be different standards. The second issue is how to help all systems meet the standard. At some point it may not make sense to add treatment, in which case alternatives, such as bottled water, may need to be considered.

Mr. Griffiths commented that there will always be systems at the margins that may need a subsidy. This is not a reason to compromise the public health goal; these systems just need to be recognized as exceptions.

Ms. Dougherty noted that Congress does not recognize bottled water as a way to comply with SDWA.

Ms. Sparrow suggested adding bottled water as alternative compliance approach to the NDWAC's recommendations.

Mr. Cooley said bottled water should be recommended for drinking, while pressurized, non-potable water should be for other household uses. There is an issue with how to prevent people from drinking the non-potable water, however.

Ms. Sparrow commented that if water is perceived as a scarce resource, then behaviors might change. Some American's use reclaimed water and do not drink it.

Mr. Cooley noted recommending bottled water is sending a mixed message as many water systems are implementing "back to the tap" marketing campaigns.

Mr. Saddler asked if there is any additional grant money that could help struggling systems. **Ms. Dougherty** replied that EPA's only grant money is earmarked; the remaining funds are in the SRFs. DWSRF funding is not tied to variances, but states can define affordability and use it to prioritize projects.

Mr. Wheeler agreed that the DWSRF is the mechanism to help systems, noting that ARRA provided states with additional funds for subsidization. State flexibility to use DWSRF funds is key.

Mr. Diemer, Ms. Sparrow, Mr. Saddler, and Mr. Wheeler agreed to draft a statement summarizing the NDWAC's recommendations on affordability and variances overnight.

DAY 2 (May 28th)

UPDATE ON REGULATORY MATTERS

Pam Barr (SRMD)

Ms. Barr gave an overview of the regulatory process, which begins with the Contaminant Candidate List (CCL). After the CCL is developed, EPA is required to make regulatory determinations for some contaminants on the list. EPA recently published a draft of the CCL3. In October 2008, EPA proposed a regulatory determination not to regulate perchlorate, a contaminant on CCL1 and CCL2. The Agency has received many comments on this determination and the new administration wants to reevaluate the science behind the determination. EPA's goal is to finalize the determination in 3 months.

The Unregulated Contaminant Monitoring Rule (UCMR) informs the CCL process by requiring some utilities to monitor for unregulated contaminants. UCMR2 is currently in effect and EPA will be releasing the first year of data soon. In addition, every 6 years, EPA is required to review the existing regulations.

EPA is now working on its second Six Year Review. As a result of the previous review, EPA is currently revising the Total Coliform Rule (TCR).

Other efforts underway include working with ORD to identify key areas of research and to modify the drinking water multi-year plan, coordination with the Water Environment Research Foundation (WERF), and establishing the Research and Information Collection Partnership (RICP), which will identify initial priorities for research. EPA also recently implemented an expedited approval process for new analytical methods.

Mr. Owen asked how the Agency chooses rules to revise based on the Six Year Review. **Ms. Barr** replied that EPA makes the determinations after collecting a tremendous amount of information, including new health effects data, detection limits, and occurrence data from states.

Mr. Kite asked if there are any pending regulations on pharmaceuticals. **Ms. Barr** responded that there are no new regulations, but there is considerable research being conducted on the effects of pharmaceuticals and personal care products (PPCPs) as well as biosolids on water supplies. The lack of methods is a constraint, but EPA is working to develop methods for hormones and other pharmaceuticals.

Mr. Kite then asked when Continuing Education Units (CEUs) will be required for wastewater operators. **Ms. Dougherty** replied that SDWA requires operators to be certified, while the CWA does not.

CONSULTATION: TOTAL COLIFORM RULE REVISIONS

Pam Barr (SRMD)

Ms. Barr described EPA's progress on the TCR revisions. The 2003 Six Year Review recommended a revision of the TCR. The revisions are being directed by the TCR/Distribution System Advisory Committee (TCRDSAC, the Advisory Committee), composed of stakeholders. The Advisory Committee gave their recommendations on how to revise the TCR and what additional research is needed in September 2008. The recommendations include an overall shift from monitoring results informing the public to monitoring results triggering system assessments and corrective action. Additional recommendations included no longer having an MCL for total coliforms, allowing quarterly or annual monitoring allowed for some small ground water systems, and prioritizing distribution system research and data collection. Based on these and the Advisory Committee's other recommendations, which included revisions to monitoring requirements, violations, and public notice (PN) requirements, EPA is now revising the regulation, which it hopes to propose in 2010.

Ms. Barr asked the Council the following consultation questions:

- Does the Council have concerns or issues with the way the TCR revisions Agreement in Principle (AIP) is written?
- What will be the challenges to states and systems to implement the TCR revisions?
- What new or revised guidance documents will be helpful?
- What is the best way to implement the new PN provisions?

Mr. Kite commented that the timeframe between positive samples and PN is too long under the existing TCR. **Ms. Dougherty** replied that the revised TCR addresses this concern as a positive sample will trigger assessment and corrective action. If a system fails to do these, they must do PN. She added that total coliforms, while not a public health concern, are an indication of the health of a system.

Mr. Kite then asked if there would be a new method that indicates which type of coliform is present. **Ms. Barr** replied that the existing method will remain.

Mr. Kite said that an issue with the Ground Water Rule (GWR) is that systems have to monitor at every well, even if a well is not in use. **Ms. Barr** clarified that the GWR allows states to decide if systems have to sample at every well or pick representative sites.

Ms. Sparrow said that for systems that are not physically connected to other systems but share management, there can be issues with compliance schedules, as different regulations are triggered in different ways by different systems. It would be helpful to streamline the requirements. Also, a tool to help people managing multiple systems with compliance would be useful as well.

Ms. Barr commented that simplicity is paramount for the Federal Advisory Committee (FACA). However, simplicity is sometimes compromised to reach the required consensus. The public can submit comments on ways to simplify the regulation while maintaining public health protection.

Mr. Grunenfelder agreed with the AIP recommendations to move towards assessment and corrective action. Washington State is going to struggle with the reduced monitoring requirements for small systems, as problems are often identified during routine monitoring. He suggested that EPA ask for comments on the costs and benefits of reduced monitoring. Routine monitoring can trigger early action.

Ms. Barr commented that reduced monitoring is at the state's discretion.

Mr. Wheeler said that assigning a treatment technique and Tier 2 violation for failure to do an assessment seems contradictory. Systems should be required to do PN if they do not perform the assessment. He also said that, as the rule changes, it is important to educate the public on how the change is beneficial.

Mr. Saddler said the new rule will encourage responsible operations, help identify problems, and improve distribution systems. Under the existing TCR, it is possible to ignore problems if repeat samples are clean. He also said the new PN requirements are a good change and should eliminate some of the unnecessary public concern.

Mr. Owen commented that the change in reduced monitoring was done for good reasons, but is an area of potential confusion. He added that as the rule is implemented it is important to articulate the reasons for its structure. Initially, training will be a greater burden for states that must go out to many small systems. A train-the-trainer approach would be good.

Mr. Cooley supported the proposed revisions. Although the standard protocol is to simply take repeat samples following a positive sample rather than address the problems, Mr. Cooley's system uses a decision tree after a positive sample to identify the cause of the problem.

Ms. Barr asked to see Mr. Cooley's decision tree.

Mr. Kite noted that operator errors occur, but the analytical methods do not account for errors such as poor sampling techniques.

Ms. Morales-Sanchez asked if there could be training on the new PN process.

Ms. Beardsley asked who has to perform the level 1 PN, to which **Ms. Barr** replied the system performs this.

Ms. Beardsley then asked if there will be checklists or other tools to help systems identify issues. **Ms. Barr** replied that there will be checklists that make the system think about the problem, then go out and investigate.

Ms. Beardsley encouraged EPA to develop draft guidance along with the rule. If states and systems have an understanding of how the regulation will be implemented, there may be fewer questions on the proposed rule.

Mr. Vincent noted that many of the group's questions have been asked and answered by the FACA. He encouraged the group to look at the detailed information from the meetings. He added that early development of new SDWIS components and software training will be critical. He advocated developing an electronic decision tree to help systems. He then asked if the TCR revisions could be incorporated into the existing sanitary survey guidance.

LOCAL PERSPECTIVES: SEATTLE PUBLIC UTILITIES

Liz Kelly (SPU), Ray Hoffman (SPU)

Liz Kelly gave a presentation on asset management at Seattle Public Utilities (SPU), which supplies drinking water; wastewater conveyance; and garbage, recycling, and organic disposal services. Asset management, defined by the utility as meeting customer and environmental service levels while minimizing costs, is the framework on which SPU is run. The utility's asset management philosophy looks for the best way to meet customer's needs both now and in the future and requires deliberate decisions for resource allocation that are transparent and informed by lifecycle considerations.

Ms. Kelly discussed 10 key decisions that have helped the utility focus its attention on asset management, starting with the decision at the executive level to use asset management to frame the utility operations. To achieve this, SPU solicited the help of an Australian utility, as Australian utilities have long been focused on asset management. Other key decisions included:

- Creating an asset management committee to serve as the capital resource decision-making body.
- Encouraging staff to consider risk, race and social justice, the triple bottom line, and climate change implications when making decisions and to question "business as usual."
- Improving accountability to customers by identifying desired outcomes and the levels of service.
- Establishing a framework to ensure asset management strategies are optimized, for example through developing strategic asset management plans.
- Developing standardized data to track SPU's performance and identify areas for improvement.
- Reorganization to align SPU's structure more effectively with asset management principles.
- Improving asset data and data systems.
- Prioritizing resources to optimize project implementation, through improved project planning, controls, accountability, and cost estimates.
- Placing greater emphasis on the cultural change necessary to sustain asset management.

Ms. Kelly concluded that although SPU has made great strides integrating SPU's asset management philosophy into everyday operations, the process has been difficult and is ongoing.

Ray Hoffman then discussed how SPU is addressing climate change concerns. SPU, which uses mostly surface water, has downscaled global climate change models to determine how climate change will affect SPU's water supply. This information helps the utility set parameters from which to make decisions. Based on these parameters, SPU then determines how to react to potential climate change scenarios, implementing the lowest cost actions first. Although the exact future is unknown, SPU is planning for a variety of scenarios to ensure that the utility will be able to adapt to future situations. **Mr. Hoffman** emphasized that there are many modes of adaptation, including behavioral, technological, financial, and institutional.

Mr. Grunenfelder commented that climate change is an important issue in the Northwest and coping with climate change is a priority for Washington's Governor. He asked if the utility has noticed a difference in how requests for rate increases are received now that SPU has an asset management focus.

Mr. Hoffman replied he had noticed a change, with significant capital investments approved. However, during the current economic climate, it is difficult to get rate increases approved. SPU's ability to present a business case and use data has helped convince decision makers to make investments.

Ms. Blette thanked Mr. Hoffman and Ms. Kelly for their presentations, noting that EPA often points to Seattle as an example of innovation. Ms. Blette said she is impressed by the utility's asset management focus and asked how climate change uncertainties are factored into strategic asset management decisions.

Mr. Hoffman replied that the utility considers climate change impacts on infrastructure and is working to develop long-term controls. It is important to be able to operate the water system under extreme scenarios.

Mr. Kite asked if the utility has an annual leak detection program in place. **Ms. Kelly** replied that SPU has an active program to reduce leaks.

Ms. Beardsley asked how SPU achieved the culture shift to implement their asset management focus. **Ms. Kelly** responded that SPU has not achieved the full culture shift yet, but is working towards it. Ms. Kelly said she believes culture change needs to start at the top of an organization through behaviors that employees can model. All levels within the organization need to encourage the change, which takes time and is a struggle.

Mr. Hoffman added that it is important to know where it pays to be proactive. Data can show that proactive behaviors reduce the necessity of reactive behaviors. He added that he holds open office hours for employees to come and talk to him about anything (e.g., ideas for improvement).

Mr. Owens asked how SPU defined metrics to work the triple bottom line into decision making. **Ms. Kelly** replied that SPU management told the employees that decisions would be made using the triple bottom line and then looked to the staff economists. She said that not every aspect of a decision needs to be quantifiable, but decisions must be fully informed.

Mr. Hoffman added that SPU has compiled different approaches to assessing the triple bottom line into a book that staff can reference.

Ms. Kelly noted that it is important to document decisions so they do not have to be revisited.

Ms. Blette asked if SPU has been approached to mentor other systems. She also asked how EPA, states, and NDWAC can help advance new approaches for utility management. **Ms. Kelly** responded that SPU does a substantial amount of work with other utilities and encourages staff to make themselves available to help others. Ms. Kelly praised the 10 Attributes of Effective Water Utilities document, which includes information on asset management. She emphasized the importance of interacting with other utilities and learning from others, noting that it is easy to “back pedal” during a difficult economic climate.

Mr. Hoffman commented that SPU has a “loaner program” with its Australian mentor through which employees at can spend time at their facility. Both sides learn from each other during these exchanges, which are incredibly valuable.

INCREASING UTILITY RESILIENCY

David Travers (WSD)

David Travers gave a presentation on water sector resiliency, focusing on how to encourage “climate ready” water utilities. Climate change will have a major impact on water systems but many utilities lack the tools to assess the impacts and identify adaptive and mitigation strategies. In addition, it is a challenge for water systems to take climate change seriously in the face of other pressing concerns. EPA is proposing to frame climate change as a planning exercise that can work within existing management frameworks and EPA programs. Climate change will affect water quantity and quality, but there is uncertainty surrounding specific impacts at the local level. Because some adaptation strategies require more accurate predictions of local weather impacts, it is important to downscale global climate models. On the other hand, utilities are used to dealing with uncertainty and should work climate change considerations into their decision making.

Mr. Travers proposed creating a NDWAC work group to help EPA determine how best to help utilities prepare for climate change. The work group’s charges would be:

- Define/develop a baseline understanding of how to use the available information to develop adaptation or mitigation strategies, including ways to integrate the information into complementary existing programs and criteria on which to judge “climate readiness.”
- Conduct a gap analysis of climate change information for utilities.
- Identify incentives to encourage the adoption of climate ready utility criteria.

Ms. Dougherty clarified that the group would focus on both drinking water and wastewater utilities, noting that several members of the Council have wastewater backgrounds.

Mr. Grunenfelder said he is very supportive of the work group. Washington’s Governor wants the state to engage in a similar exercise, but it would be better to do the work at the national level.

Ms. Sparrow supported the Agency being proactive on climate change and noted that there are many unknowns.

Mr. Wheeler agreed and commented that he often hears people ask what his water system will do to address climate change. It would be helpful for EPA to take leadership and help identify adaptation strategies.

Mr. Cooley inquired how the new work group would line up with other EPA climate change efforts. **Mr. Travers** replied that other EPA offices are not engaging on adaptation strategies for water utilities; this initiative would help the Office of Water get out in front of other sectors in developing these tools.

Mr. Diemer agreed that it is a good idea to be proactive, especially given the political interest. He noted that it is not difficult to assess the impact of climate change on existing infrastructure, but it is challenging to assess the impacts on water supplies as there are not yet the modeling capabilities to predict supply. It is important to get these models to a scale where they make “actionable assessments” for water supplies.

Ms. Sparrow commented that focusing on adaptability and if/then planning could be part of the climate change strategy.

Mr. Diemer added that there is a need to manage expectations; until global climate change models can be downscaled, many questions will remain unanswered.

Mr. Grunenfelder said that the work group’s focus would be on adaptation and preparation, not mitigation.

Ms. Sparrow noted that water systems also need to consider mitigation, as it fits into adaptation and preparation.

Mr. Travers explained that there are two approaches to climate change for water systems: a “top down” approach focused on downscaling models, and a “bottom up” approach that identifies water system vulnerabilities and how and to what extent climate change can exacerbate these vulnerabilities.

Mr. Kite agreed that a work group is needed, noting that climate change will affect different utilities in different ways and should be incorporated into emergency response planning.

Jennifer Nuzzo noted that there are many similarities between Mr. Travers’ proposal and the Cities for Climate Protection Program, which looks at resources likely to be affected by climate change and works with partners to develop a community-wide climate plan. This program could be a partner for EPA. Another potential partner Federal Emergency Management Agency’s (FEMA’s) Project Impact Program. She encouraged EPA to build on existing programs.

Mr. Grunenfelder asked for comments on the work group’s proposed composition.

Mr. Griffiths suggested adding climate specialists, and **Mr. Travers** replied these are covered under subject matter experts (SMEs), which would be non-voting members of the group.

Ms. Morales-Sanchez inquired about the outcomes of the work group. **Mr. Travers** said he envisions something similar to the water preparedness/security work group and sees two key outcomes: a list of attributes of a climate ready utility and a clear path forward to help utilities obtain these attributes.

Mr. Wheeler suggested having a representative from a state regulatory commission on the group.

Mr. Cooley noted that he was a member of the water security work group. He said that although there was no predetermined outcome for the work group, the group was able to be productive.

Ms. Sparrow asked for more information on the commitment involved with serving on a work group. **Mr. Travers** replied that there would likely be 2-3 face-to-face meetings and 2-3 conference calls over the

course of a year, with some homework. **Mr. Cooley** added that there could be subgroups within the work group as well.

Mr. Griffiths asked if there are other institutions whose presence might be helpful. **Mr. Travers** replied that EPA recognizes the need to engage other agencies and has compiled a preliminary list, including NOAA climate scientists, USGS hydrologists, IPCC scientists, and experts on climate change and water.

Mr. Zarate-Bermudez commented that CDC's National Center for Environmental Health has a work group on climate change and might be interested in participating in the work group, given the public health implications.

Mr. Grunenfelder asked who from the Council would be interested in serving on the work group. Two to three NDWAC members need to be on the group, with at least one present at each meeting.

From NDWAC, **Ms. Sparrow, Mr. Cooley, Ms. Morales-Sanchez, Mr. Smith, and Mr. Kite** volunteered.

Mr. Wheeler, Mr. Diemer, Mr. Grunenfelder, and Ms. Beardsley said they are interested in having someone from their organization serve on the work group. **Mr. Zarate-Bermudez and Mr. Griffiths** also expressed interest in participating.

Mr. Owens asked how this work group will be related to the risk assessment tool work group. **Mr. Travers** replied that the work groups will be connected, with the risk assessment tool work group informing the climate change work group.

Ms. Sparrow made a motion to form a work group to evaluate the concept of "climate ready utilities."

Ms. Morales-Sanchez seconded the motion.

Vote on motion – 15 Yea, 0 nay, 0 absent. Motion carries.

Mr. Travers then presented an overview of the climate change risk assessment and awareness tool currently under development. The tool is being developed by a work group that includes representatives from utilities, government agencies, water associations, academic institutions, and SMEs, among others. The purpose of the tools is to analyze climate change threats and specific utility vulnerabilities, identify adaptation strategies, and the costs of those strategies. The tool will not be a modeling tool, but EPA hopes it will be able to match climate change threats to specific locations. EPA hopes the tool will build awareness and lend legitimacy to climate change concerns. The framework for the tool is scheduled to be completed in August 2009.

PUBLIC PARTICIPATION

There were no public comments.

FOLLOW-UP DISCUSSION FROM DAY 1

The group discussed revisions to the letter to EPA, drafted by several Council members overnight, expressing the NDWAC's position on affordability. The letter expressed agreement with the findings of

the 2003 NDWAC report and recommends a common standard of public health participation for all. NDWAC acknowledges that systems will have varying capacities to meet standards. The ability to comply may vary regionally and states should consider this when making affordability determinations. To help all PWSs comply, NDWAC recommends that EPA use a variety of tools and strategies. Funds should be applied consistently across states and in the most efficient manner possible. Systems receiving subsidies should demonstrate that they will make the appropriate changes to ensure they will be sustainable for the long term.

During the discussion, **Ms. Blette** revised the letter in response to issues raised and suggestions made. The final letter can be found in Appendix B. In addition to several minor wording changes, the Council discussed the following issues:

- Wording revisions to clarify that there should be a common standard of public health protection for all people served by PWSs, as opposed to “communities” because communities are not regulated.
- Some Council members wanted to name bottled water as an acceptable compliance approach, while others expressed reservations as it would be difficult to ensure the compliance of bottled water. The Council decided to reference “alternative technologies” instead of bottled water specifically.
- The acceptable timeframe for a phased compliance approach was discussed. Some Council members advocated that variances could be allowed for a “short” time, while others did not want to give a timeframe but note that variances should not be permanent. The Council decided to recommend a “defined” timeframe to come into compliance.
- The distinction between variances and exemptions was discussed. **Ms. Dougherty** clarified that, under a variance, a water system is allowed to meet a less stringent standard for a long period of time, but not forever. Exemptions delay compliance, allowing water systems additional time to meet the standard.
- **Mr. Saddler** and **Mr. Simon** expressed concern that by recommending that variances not be allowed, the Council is recommending statutory changes, as variances are allowed under SDWA.

Ms. Taylor asked about the level of guidance available to states to help them determine affordability. **Ms. Blette** replied that when the DWSRF was initiated, EPA developed information on how states could assess affordability. No materials on the subject have been developed recently.

Mr. Wheeler motioned to accept the letter as revised and send it to the EPA Administrator.

Mr. Saddler seconded the motion.

Vote: 15 yea, 0 nay, 0 absent. Motion carries.

Mr. Grunenfelder said he will convert the revised recommendations into a letter for the EPA Administrator.

GEOLOGIC SEQUESTRATION RULE AND AIRLINE DRINKING WATER RULE

Steve Heare (DWPD)

Steve Heare presented an update on the carbon dioxide (CO₂) geologic sequestration (GS) rule. The rule, which has been receiving considerable political attention, was proposed in July 2008. The public comment

period ended in December 2008. On every aspect of the rule, EPA received conflicting comments. Specific areas of comments include the conversion of Class 2 wells to Class 6, rule primacy, state funding, injection depth, post-injection site care and closure, CO₂ stream characterization, financial responsibility and liability requirements, public participation, statutory authority coverage, and climate change. EPA is working on a Notice of Data Availability (NODA) for 2009, followed by a final rule promulgated in late 2010 or early 2011.

Mr. Saddler asked how Class 1 wells are regulated. **Mr. Heare** replied that Class 1 wells deal with hazardous waste and must go through a stringent permitting process. A “no migration” petition is required, stating that the waste will not move for 10,000 years. There are few wells of this type because it is difficult to secure permits.

Mr. Griffiths asked how the number of existing CO₂ wells compares to the number expected. **Mr. Heare** responded that there is a long history in the U.S. of using CO₂ wells to enhance oil and gas recovery. There are also several large scale sequestration projects in place around the world. He added that the Department of Energy (DOE) estimates that there is 3,000 gigatons of carbon storage space in the U.S.

Given the vast amount of storage available, **Ms. Taylor** asked how GS could potentially affect ground water. **Mr. Heare** replied that USGS has questioned the estimates for storage capacity and is conducting additional studies.

Ms. Taylor then asked how the storage capabilities related to the amount of coal burned in the U.S. **Mr. Heare** said experts estimate that the U.S. can continue burning coal for 200 years; all of the CO₂ generated could be captured underground. Mr. Heare cautioned that these figures are only estimates.

Ms. Dougherty commented that, if GS is used as a way to mitigate greenhouse gas emissions, the OGWDW’s role is to ensure that it is conducted in a manner that does not endanger underground sources of drinking water (USDW). OGWDW also has the ability to monitor to ensure that the CO₂ does not escape. There are no other rules on GS in place, so it is important for EPA to move forward with the rule.

Mr. Kite said that his system’s water treatment plant is 4 miles from a coal fired plant that has a GS well, but the system was not notified about the well.

Mr. Heare noted that the well could have been permitted as an experimental Class 5 well or a Class 1 non-hazardous well. He added that the cost driver behind GS is the capture technology to strip CO₂ off a coal-fired power plant.

Mr. Vincent asked about the contaminants of concern associated with GS that could get into ground water. **Mr. Heare** replied that the CO₂ will be a relatively pure stream. However, there are contamination concerns related to the amount of CO₂ injected, its state as a super critical liquid, and its corrosiveness.

Ms. Blette added that another concern is the ability of carbonic acid to mobilize metals.

Mr. Heare then presented an update on the Aircraft Drinking Water Rule (ADWR). Aircraft that meet the definition of a PWS must meet SDWA regulations, although the original regulations did not consider airplanes. In 2003, EPA found that many aircraft were out of compliance. After placing the airlines under Administrative Orders of Consent, EPA engaged in a collaborative process with the airlines and other stakeholders to tailor the existing regulations to aircraft water systems. The proposed rule only addresses aircraft regulated under SDWA and only regulates onboard water systems (the FDA regulates water

elsewhere). ADWR provisions include routine disinfection and flushing, routine sampling, corrective action, operator training, and reporting and recordkeeping.

During EPA's May 2007 NDWAC consultation on the ADWR, the Council recommended including additional information on PN and best management practices. EPA has also received public comment on the proposed rule and is now preparing the final rule. Based on feedback received, the final rule will likely include additional flexibility in flushing and disinfection monitoring frequencies and corrective action. As the final rule is currently under review at OMB, EPA is uncertain what the exact provisions of the final rule will be. After EPA receives OMB's comments, EPA will make any necessary modifications before the rule is signed by the Administrator.

Mr. Cooley asked who takes samples on the airplanes. **Mr. Heare** replied that the rule specifies who must do what to comply and requires that all maintenance and sampling requirements are included in the Federal Aviation Administration (FAA) manual. The FAA will train the people who will take samples.

Mr. Vincent asked if buses or trains have requirements for water on board. **Mr. Heare** replied that EPA has an agreement with Amtrak for how they handle and board water. Water systems on board buses and ferries do not currently have any regulatory requirements.

ISSUES FOR DISCUSSION AT FALL 2009 MEETING AND WRAP-UP

Gregg Grunenfelder

Mr. Grunenfelder said the fall 2009 meeting will be held in either Washington, D.C., or in Philadelphia, PA, to partner with the APHA meeting being held November 7-11. He reiterated a suggestion from earlier in the meeting to have a representative from ORD discuss their research agenda, health effects research, and alternative technologies research. A session on PPCPs was also suggested earlier, as well as a follow up on the climate ready water utilities work group.

Mr. Owen suggested contaminant warning systems and climate change as potential topics.

Mr. Cooley suggested interdependencies.

Ms. Sparrow mentioned chemical security issues, for example related to chlorine used as a disinfectant.

Ms. Dougherty said there will likely be some regulatory updates.

Ms. Morales-Sanchez suggested a follow up on sustainability from the full-cost pricing subgroup.

Ms. Barr asked for volunteers for a potential subgroup on PN language for the revised TCR.

Mr. Vincent, Mr. Kite, and Ms. Beardsley volunteered for the subgroup.

Ms. Dougherty thanked the group for attending the meeting, commenting that she enjoys hearing the Council's input.

Ms. Blette said that her position as Designated Federal Officer (DFO) requires a significant investment of time and she is not sure she will be able to do a fair job in the role as her other responsibilities expand. Ms. Dougherty is working to find a new DFO to replace Ms. Blette. The group thanked Ms. Blette for her dedication and hard work as DFO.

Appendix A

FINAL AGENDA
National Drinking Water Advisory Council Spring Meeting
W Hotel Seattle
Seattle, WA
May 27-28, 2009

Tuesday, May 26, 2009

- Meeting of Full Cost Pricing Subgroup: Peter Shanaghan will meet with subgroup members who arrive earlier in the day.

Wednesday, May 27, 2009

8:00-8:30 am	Registration and Coffee for Members <i>New Members are asked to come early to complete required paperwork.</i>	
8:30-9:00 am	Welcome <i>Purpose: Introduce new members and review agenda</i>	Gregg Grunenfelder, NDWAC Chair, Veronica Blette, DFO
9:00-9:30 am	Follow-up since the Last Meeting <i>Purpose: Discuss EPA activities underway to follow-up on recommendations made from previous meetings, reports from subgroup, and Recovery Act implementation.</i>	Veronica Blette, DFO Cynthia Dougherty, IO
9:30-10:00 am	Small Systems Issues – Introduction of Subject <i>Purpose: Present FY 2010 budget language regarding equitability for small systems and review recommendations from 2003 NDWAC Report on Affordability.</i>	Cynthia Dougherty, IO
10:00 – 10:15 am	BREAK	
10:15 -11:45	Small System Variances <i>Purpose: Discuss EPA approach to determining need for variances from drinking water regulations.</i>	Paul Simon, IO Pamela Barr, SRMD
11:45-1:00	LUNCH	
1:00-1:30 pm	Other Tools to Help Small Systems <i>Purpose: Discuss status of other EPA efforts to help small systems.</i>	Steve Heare, DWPD
1:30-2:30 pm	Local Perspectives on Small System Needs <i>Purpose: The Evergreen Rural Water Association will share their experiences with small utilities in the region, and the WA Drinking Water program will share highlights from their small water system report to the legislature.</i>	Fred Sheldon, ERWA; Denise Clifford, Director, WA Office of Drinking Water
2:30-2:45	BREAK	
2:45-3:45 pm	Sustainability and Rates <i>Purpose: Discuss FY 2010 budget language and efforts underway to address.</i>	Peter Shanaghan, DWPD

3:45-5:00 pm	Council Discussion on Small Systems and Sustainability <i>Purpose: Discuss next steps on this issue, including prioritization of 2003 recommendations and/or need to revisit/revise recommendations. [Time permitting we may allow an opportunity for public comment prior to the discussion.]</i>	Gregg Grunenfelder Cynthia Dougherty
6:00 p.m.	GROUP DINNER	

Thursday, May 28, 2009

8:00-8:30 am	Registration and Coffee for Members	
8:30-9:00 am	Update on Regulatory Matters <i>Purpose: Provide update on CCL3, Six Year Review, PPCPs, and other regulatory-related activities.</i>	Pam Barr, SRMD
9:00-10:00 am	Consultation: Total Coliform Rule Revisions <i>Purpose: Consult with Council on actions underway to develop rule that reflects the TCRDSAC Agreement in Principle</i>	Pam Barr, SRMD
10:00 – 10:15 am	BREAK	
10:15 -12:00 pm	Local Perspectives: Seattle Public Utilities <i>Purpose: Representatives from SPU will share what they are doing in the area of effective utility management and how they are responding to changes in local climate.</i>	Liz Kelly, SPU Ray Hoffman, SPU
12:00 -1:00 pm	LUNCH	
1:00 - 2:30 pm	Increasing Utility Resiliency <i>Purpose: Discuss activities underway to help water utilities with adaptation to climate change. Discuss potential charge for a working group of the NDWAC to consider related issues.</i>	David Travers, WSD Curt Baranowski, WSD
2:30-3:30 pm	PUBLIC PARTICIPATION	
3:30-3:45 pm	BREAK	
3:45-4:30 pm	Geologic Sequestration Rule and Airline Drinking Water Rule <i>Purpose: Follow-up on the rule-makings for consultation purposes.</i>	Steve Heare, DWPD
4:30-5:00 pm	Issues for Discussion at Fall 2009 Meeting and Wrap Up	Gregg Grunenfelder
5:00	ADJOURN	

Appendix B – Final Letter to Administrator (see next page)



EPA NATIONAL DRINKING WATER ADVISORY COUNCIL

NDWAC Members

Gregg Grunenfelder,
Chair
Olympia, WA

June 12, 2009

Nancy Beardsley
Augusta, ME

Ms. Lisa Perez Jackson
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington D. C. 20460

Jeff Cooley
Vacaville, CA

Dennis Diemer
Oakland, CA

Dear Administrator Jackson:

Timothy Kite
Decatur, IL

On behalf of the National Drinking Water Advisory Council (NDWAC), I would like to congratulate you on being named as the Administrator of the Environmental Protection Agency. We are excited by the energy you have brought to the Agency in the few months that you have been in your position.

Olga Morales-Sanchez
Dona Ana, NM

Jennifer Nuzzo
Baltimore, MD

While you move to carry out new initiatives to reflect the Administration's priorities, we hope that you will also continue to support some initiatives developed by the Agency in the last several years. Last fall, the Council was briefed on the Office of Water's efforts on sustaining our nation's water infrastructure. We were very impressed with the caliber of work that has been conducted to advance effective utility management, water efficiency through the WaterSense program, and watershed approaches to source water protection as reflected by the Green Infrastructure program.

Douglas Owen
White Plains, NY

David Saddler
Sells, AZ

Duane Smith
Oklahoma City, OK

Lisa Sparrow
Northbrook, IL

Carl Stephani
Unionville, CT

You will be pleased to know that you have a team of EPA staff who are talented and committed to the implementation of this very important initiative. As EPA carries out activities to implement the American Reinvestment and Recovery Act, we hope that the Agency will continue to communicate the value and importance that sustainable infrastructure plays in stabilizing our communities, maintaining a vibrant economy, ensuring our national security, and improving our quality of life.

Hope Taylor
Durham, NC

Bob Vincent
Tallahassee, FL

Brian Wheeler
Kissimmee, FL

During the last week of May, the NDWAC held its spring meeting in Seattle, Washington. At this meeting, the Council was updated on EPA activities related to revisions to the Total Coliform Rule and development of the Airline Drinking Water and Geologic Sequestration Rules. The Council was also briefed on the Office of Water's efforts to improve the resiliency of water utilities to the potential impacts of climate change. The Council approved the formation of a working group to evaluate the concept of "Climate Ready Water Utilities," and assist in the development of an effective program to facilitate broad adoption of climate change adaptation and mitigation strategies by drinking water and wastewater utilities.

The Council spent the first day of the meeting discussing directives in the Fiscal Year 2010 EPA budget related to small systems and sustainability. Specifically, the NDWAC was asked to consider whether EPA's historical policy on assessing affordability for the purposes of allowing variances to national public water regulations should be revised.

In its 2003 NDWAC report on EPA's affordability criteria (*Recommendations of the National Drinking Water Advisory Council to U.S. EPA on Its National Small Systems Affordability Criteria*), the Council noted that "significant practical, logistical, and ethical issues mitigate against the use of variances." The Council also noted that "alternatives to the variance process... are more appropriate means to address the affordability problem. Therefore, if a variance process is deemed necessary to achieve affordability, it should only be pursued after all other alternatives presented in this report are given due consideration."

The 2009 Council continues to agree with the findings of the 2003 report. In its current form, irrespective of the threshold selected, variances based on affordability will result in the establishment of tiered health standards based on a consumer's ability to pay (whether defined nationally, regionally, locally, or the person next door).

As a nation, we need to move toward solutions that are consistent with supporting long-term sustainability by enhancing access to information/knowledge, promoting use of new technologies, potential restructuring, and appropriate use of financial assistance/subsidy. As EPA works to respond to FY 2010 budget directives that require the Agency to evaluate the equitable consideration of small systems and to develop a sustainability policy, the Council recommends that the Agency take the following into consideration:

- 1) There should be a common standard of public health protection for all people served by public water systems. Access to safe drinking water, as defined by the EPA, is critical for all people, and standards for safety should not be modified based on ability to pay. Therefore, NDWAC believes that although some systems may require additional time to comply with the defined health standard through the use of exemptions or appropriate enforcement actions, variances from any health standard should not be allowed.

- 2) There will always be a varying financial capacity for water systems to meet the standards. Therefore, NDWAC believes that a variety of strategies, including those described in the 2003 report (see enclosure), need to be employed at the federal and state level to provide technical and financial assistance to help those systems that are truly unable to afford compliance with standards.
- 3) Where financial assistance is provided, the most efficient use of money should be pursued. Therefore, the NDWAC believes that cost-effective and/or innovative solutions should be identified to ensure long-term sustainability.
- 4) The ability to comply with any specific requirement may differ regionally. Therefore, NDWAC believes that states must be responsible for assessing affordability using factors that are appropriate for their region and their demographics. NDWAC further believes that states need to consider affordability in providing more robust levels of allowable subsidy through their DWSRF program to target those systems that are most in need of assistance.
- 5) The goal of any assistance to a public water system that is challenged in complying with standards is to provide a hand-up rather than a handout. Therefore, NDWAC believes that systems receiving additional subsidy must demonstrate that they will make appropriate changes to ensure that they are being managed as effectively as possible so that they are more sustainable for the long-term.
- 6) While there are many tools that can be used to help water systems comply, there is inconsistent application of them across states (e.g., DWSRF disadvantaged assistance). NDWAC believes that EPA needs to work with states to ensure that they make more robust use of all tools in their toolbox so that the options available to public water systems are not limited by the state in which they are located.

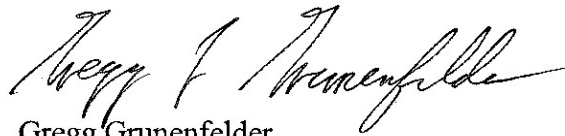
Ultimately, the Council believes that the focus of the drinking water community is on public health protection. If there is agreement on the science associated with the regulatory development process, then the drinking water community needs to ensure that all of the public receives water that meets the public health standards. Where there are disagreements with the science they should be addressed through appropriate channels. However, affordability-challenged communities should not be denied the same level of protection that other communities are provided. To facilitate long-term sustainability, public water systems must be effectively managed; therefore subsidies should be targeted only to those systems that remain financially challenged even after appropriate management and structural changes have been made.

The Council understands that the issue of affordability has been a controversial one for the Agency and its stakeholders. There are strong feelings on all sides of the issue and some stakeholders may argue that our recommendation is counter to the intent

of Congress. In 2003, the Council advised the Administrator to “convey to Congress the NDWAC’s logistical and ethical concerns with variances and the NDWAC’s position that variances in the extent of water treatment, as a means to achieve affordable compliance, be reconsidered.” We continue to support this recommendation and advise you to take appropriate action in this regard.

Thank you for your consideration of our recommendations on issues associated with the equitable treatment of small systems. If you have any questions, please contact Veronica Blette, Designated Federal Officer for the NDWAC, at (202) 564-4094.

Sincerely,



Gregg Grunenfelder

Chair

National Drinking Water Advisory Council

Enclosure

cc:

Michael H. Shapiro, Acting Assistant Administrator for Water

Cynthia C. Dougherty, Director, Office of Ground Water and Drinking Water

Enclosure

Financial, System, and Public Education Strategies Identified by the NDWAC Affordability Working Group and Adopted by the Full NDWAC

Note: This enclosure excerpts information from the full NDWAC report which is available online at http://www.epa.gov/safewater/ndwac/pdfs/report_ndwac_affordabilitywg_final_08-08-03.pdf.

Financial Support Strategies for Addressing Affordability Challenges

(from Section 6.2.5, pages 94-95 of the 2003 Report)

- EPA should provide information and examples pertaining to the use of affordability rates for systems to help make water affordable to low-income households.
- A Low Income Water Assistance Program (LIWAP) should be adopted as a means to assist low-income households facing high drinking water costs, funded with a Congressional appropriation similar in structure to (though clearly requiring far less money than) the funding for the LIHEAP.
- DWSRF funding should be increased, with special consideration given to assisting small systems.
- The Work Group proposed that EPA modify the DWSRF allotment formula. The NDWAC believes such an action is premature and instead recommends that EPA determine if, as a result of the current DWSRF allocation formula, small public water systems are being disproportionately denied funding from State DWSRF programs due to inadequate funding being available.
- The Work Group proposed that any disadvantaged system should receive priority for DWSRF funding. With the understanding that not all States currently have disadvantaged programs, the NDWAC changed the recommendation to propose that EPA encourage States, that have not already done so, to establish a disadvantaged community program to address small system affordability issues. Such funding should be consistent with the principles in the DWSRF to encourage restructuring where viable.
- EPA should work with other agencies to help overcome barriers to effective use of existing funding sources to promote small system affordability for safe drinking water. Examples of such assistance include:
 - Increasing outreach efforts to small systems of all classes to provide information on available funding programs.
 - Increasing the technical assistance to small water systems to address needs in the areas of funding applications, accounting and long-range planning, engineering and technical corrections, and record-keeping practices consistent with the needs for funding and SDWA requirements.
 - Improving the opportunities of small systems to acquire funding from all sources, governmental and private. Increase the use of grant funds, zero interest loans, and other means of assistance to low-income water systems in need.
 - Analyzing methods of removing institutional barriers at both the State and federal levels that prevent small systems from obtaining funding and complying with SDWA requirements in an affordable manner.

- Establishing new, and expanding existing, sources of funding to provide assistance to small systems in all areas of achieving and maintaining system capacity.
- Provide additional funding beyond the current DWSRF funding for small systems to adopt cooperative strategies.
- Explore and consider the use of other State and federal agencies, such as the U.S. Army Corps of Engineers and the Bureau of Reclamation, to assist small drinking water-related projects.

System-Level Strategies for Addressing Affordability Challenges

(from Section 6.3.5, pages 97-98 of the 2003 Report)

- New and expanded State leadership is essential to promote cooperation among small systems. Cooperative efforts designed for an area or regions are essential if the cost of compliance is to be reduced. These efforts should be funded through new appropriations or through re-allocation of a portion of DWSRF funds that are currently being applied to individual system projects. State-managed cooperative efforts should include:
 - Providing managerial, technical, and planning assistance for small systems, including expanded use of the private sector and large central utilities that can provide these services;
 - Public outreach to small systems to provide support and information on the value of cooperative and consolidation efforts;
 - Conducting focused outreach programs to regional groups directly or in conjunction with others, and allowing cooperation expenditures by these groups to be considered in federal and State financial assistance programs;
 - Continuing and improving methods of recordkeeping and reporting progress on capacity-building programs (consistent with SDWA capacity development provisions) and reporting progress in achieving small system cooperation and consolidation to EPA and the NDWAC. EPA and States should use this information to develop and maintain an effective small system cooperation database that can be used to promote cooperation;
 - Offering meaningful incentives for assessing whether cooperative efforts are feasible and limiting financial and technical support for individual system compliance solutions to small systems that have assessed cooperative options and found them to be infeasible or not cost-effective; and,
 - Assistance to community groups, system operators, and owners in the development of governance, advisory, or other participatory vehicles to ensure a continued role for these stakeholders when cooperative solutions are implemented.
- Consider regulatory changes to allow the use of system-provided bottled water in appropriate cases, either as a variance technology or to achieve compliance (with primacy agency approval) for non-microbial, non-inhalation, and non-dermal compliance situations. The use of bottled water should be considered only when it meets applicable standards, is accompanied by a public education program, and the system guarantees quality assurance.

- Recent scientific and technical developments have increased the potential for “umbrella” compliance technologies, such as membranes. EPA should establish a Work Group to review the technical and policy feasibility of allowing a “Super” BAT approach to provide affordable, long-term compliance, including the consideration of appropriate incentives regarding future compliance.
- When examining the cost of regulatory compliance at the national or State level, system flow capacity optimization (achieved through control of water leakage, metering, rate structure, and facility design) should be considered prior to developing the cost of treatment technologies and/or cooperative solutions.

Public Education Strategies

(from Section 6.4.1, pages 98-99 of the 2003 Report)

- EPA should determine the scope, feasibility, and cost of implementing a national public education campaign that addresses the health risk and benefits (risk avoidance) of improved drinking water quality and implement such a campaign if feasible.
- EPA should review the CCR content to determine if the CCR can be used as a more effective public education tool.
- EPA should review SDWA variance/exemption processes to ensure that stakeholder education and input are achieved at the earliest possible date.

NDWAC Perspective on the Affordability Work Group Recommendations

(from Section 6.5, pages 99-100 of the 2003 Report)

The NDWAC agrees with and adopts the Affordability Work Group’s recommendations with the following clarifications.

The NDWAC fully recognizes the importance of affordable and safe drinking water, especially for small systems. The 1996 Amendments to the SDWA established the principle that variances in water treatment technology could be used to address the issue of affordability. However, significant practical, logistical, and ethical issues mitigate against the use of variances.

For example, the cost of establishing the appropriateness of a variance for a specific small system is significant. The heightened monitoring and regulatory burden that would fall to State and local authorities is unacceptable for many of them. Furthermore, the potential acceptance of lower water quality for disadvantaged communities is ethically troublesome.

The NDWAC believes that alternatives to the variance process identified by the Work Group (such as cooperative strategies, targeted use of funding to disadvantaged water systems, a Low Income Water Assistance Program, etc.) are more appropriate means to address the affordability problem. Therefore, if a variance process is deemed necessary to achieve affordability, it should only be pursued after all other alternatives presented in this report are given due consideration. However, because of the NDWAC has pragmatic and ethical concerns with variances and the associated connotation of a 2-tier approach to protecting public health, the Council makes the following recommendation:

- The NDWAC advises the Administrator to convey to Congress the NDWAC's logistical and ethical concerns with variances and the NDWAC's position that variances in the extent of water treatment, as a means to achieve affordable compliance, be reconsidered.

The NDWAC recognizes that the incremental approach recommended by the Affordability Work Group is designed to avoid "rate shock" and mitigate the excessive costs of any single rule. However, the NDWAC believes that the cumulative cost of drinking water regulations is also an important consideration in affordability determinations. The NDWAC is concerned that the incremental approach alone does not sufficiently address the cumulative costs of several rules and other operating cost burdens (e.g. infrastructure replacement) that collectively may be "unaffordable" for some systems. The Work Group gave careful consideration to this important issue (see Pages 20-23, 86-89, and Appendix 5), and recommended that, where EPA identifies a need for variance technologies at the national level based on an incremental approach, States consider cumulative impacts at the system-level in determining whether to approve individual variance requests.

Cumulative impacts should be considered, for example, in determining eligibility for grants, loans, and funding under the DWSRF. In addition, if variances are to be made available, cumulative impacts should be considered in determining system eligibility for a small system variance. In order to assist states in making affordability determinations for individual systems:

- The NDWAC recommends that EPA augment the incremental approach with reasonable cumulative affordability guidelines that could be used by the states to determine the eligibility for small system variances and/or financial support.