NATIONAL DRINKING WATER ADVISORY COUNCIL

MEETING NOTES

NOVEMBER 19 - 21, 2008

PHOENIX PARK HOTEL
520 N. CAPITOL STREET NW
WASHINGTON, DC 20001

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
Dr. Rebecca Head, Health Officer and Director, Monroe County Public Health Department, MI
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, Associate, 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
Carl Stephani, Executive Director, Central Connecticut Regional Planning Agency, Bristol, CT
Lynn Thorp, National Program Coordinator, Clean Water Fund, Washington, DC
Brian L. Wheeler, Executive Director, Toho Water Authority, City of Kissimmee, FL

U.S. Environmental Protection Agency Attendees

Pam Barr, Director, Standards and Risk Management Division (SRMD), Office of Ground Water and Drinking Water (OGWDW)
Eric Burneson, Chief, Targeting Analysis Branch, SRMD, OGWDW
Ann Codrington, Chief, Prevention Branch, Drinking Water Protection Division (DWPD), OGWDW
Andy Crossland, Municipal Support Division (MSD), Office of Wastewater Management (OWM)
Elizabeth Corr, Deputy Director, DWPD, OGWDW
Cynthia Dougherty, Director, OGWDW
Frances Eargle, Office of Congressional and Intergovernmental Relations (OCIR)
Ben Grumbles, Assistant Administrator for Water
Steve Heare, Director, DWPD, OGWDW
Jim Horne, MSD, OWM
Charles Job, Chief, Infrastructure Branch, DWPD, OGWDW
Virginia Lee, MSD, OWM
Latisha Mapp, Water Security Division (WSD), OGWDW
Jenny Molloy, Water Permits Division (WPD), OWM
Katie Porter, Associate Chief, Protection Branch, DWPD, OGWDW
Peter Shanaghan, DWPD, OGWDW
Mike Shapiro, Deputy Assistant Administrator, Office of Water
Charlene Shaw, DWPD, OGWDW
David Travers, Director, WSD, OGWDW
John Whitler, WSD, OGWDW

Designated Federal Officer (DFO)
Veronica Blette, Special Assistant to the Director, OGWDW

Centers for Disease Control and Prevention (CDC) Liaison
Vincent Radke, Environmental Health Services Branch, CDC/National Center for Environmental Health

Science Advisory Board (SAB) Liaison
Jeff Griffiths, Director of Global Health, Tufts University School of Medicine

Members of the Public
Rudd Coffey, The Cadmus Group, Inc.
Meredith Irwin, The Cadmus Group, Inc.
Vanessa Leiby, The Cadmus Group, Inc.
Bridget O'Grady, ASDWA
Stan Hazan, NSF International
Erica Brown, AMWA
Kevin Morley, AWWA
Carolyn Peterson, AMWA
Robert Stuart, RCAP
Maria Lopez-Carbo, OGWDW
Alan Roberson, AWWA
Laura Gomez, OGWDW
Lee Garrigan, ECOS
Ed Thomas, NRWA
Manja Blazer, IDEXX Laboratories, Inc.
Darrell Osterhoudt, ASDWA
Cythia Lane, AWWA

National Drinking Water Advisory Council
November 2008 Meeting Summary

DAY 1 (November 19th)
(Agenda can be found in Appendix A)

OPENING REMARKS

Veronica Blette, Designated Federal Officer (DFO), opened the meeting and provided a brief overview of the agenda. One Council member, Jeff Taylor was not in attendance.

FOLLOW-UP SINCE THE LAST MEETING

Elizabeth Corr (DWPD), Veronica Blette (IO)

Elizabeth Corr summarized the final *National Water Program Strategy: Response to Climate Change*, published in September 2008 by the U.S. Environmental Protection Agency (EPA). The final *Strategy* is based, in large part, on the science of the 2007 assessment report of the Intergovernmental Panel on Climate Change and provides an overview of the likely effects of climate change on water resources and the clean water and safe drinking water programs. The *Strategy* includes 5 major goals and 44 specific actions the National Water Program intends to take to adapt program implementation in light of climate change. The 5 major goals are:

- Goal 1: Mitigation of Greenhouse Gases
- Goal 2: Adaptation to Climate Change
- Goal 3: Climate Change Research Related to Water
- Goal 4: Education on Climate Change
- Goal 5: Management of Climate Change

Ms. Corr thanked the Council for its comments on the draft *Strategy*. Ms. Corr noted that the need to assess issues associated with the development of alternative water supplies as part of a suite of water supply management techniques was added to the list of sample research needs after recommendations from the Council.

Rebecca Head asked if the Office of Water initiated conversations with the Centers for Disease Control and Prevention (CDC) while developing the *Strategy*. CDC's National Center for Environmental Health has incorporated water issues into their strategies for climate change and emergency preparedness.

Ms. Corr responded that EPA engaged with CDC at a workshop last year. **Vince Radke** added that both wastewater and drinking water are among the top priorities for the National Center of Environmental Health.

Gregg Grunenfelder suggested that interaction with the Climate Impact Groups associated with universities around the country might be a way to address more regional issues associated with climate change.

Ms. Corr responded that the University of Washington and Columbia University will participate in EPA workshops in January. The process of bringing global climate change models down to a regional scale is very challenging.

Jennifer Nuzzo asked if EPA consulted the Federal Emergency Management Agency (FEMA) or the Department of Energy (DOE) while developing the *Strategy*. Ms. Nuzzo suggested that Project Impact studies conducted by these entities could be of use to EPA.

Ms. Corr responded that EPA works with DOE in the development of the proposed carbon dioxide (CO_2) geologic sequestration (GS) Rule. Although EPA has not engaged with FEMA in the past, they would be very interested to work with that agency in the future.

Mr. Grunenfelder asked if the Office of Air and Radiation (OAR) developed a climate change strategy.

Ms. Corr replied that EPA's OAR does not have a comprehensive strategy at this point, but that the Office is looking at air impact issues.

Duane Smith commented that, from the perspective of the states, EPA and other agencies, such as the National Oceanic and Atmospheric Administration (NOAA) and the U.S. Army Corps of Engineers (USACE), should work together to form a more unified approach to climate change. As each agency develops its own strategy, it seems disjointed to states and unclear as to how they will all fit together. It will be very difficult for state and local agencies to implement the components of each strategy.

Ms. Corr acknowledged Mr. Smith's concern and added that EPA has been working with the Association of State Drinking Water Administrators (ASDWA) on this issue. The Western States Water Council, EPA, and other federal agencies have also started to work together to coordinate communication efforts. **Veronica Blette** added that EPA received a request from USACE to work together on a project looking at state water plans. Ms. Blette is hopeful that such coordination between federal agencies will only increase in the future.

Mr. Kite highlighted that we need to remember that impacts/plans will differ from region to region and state to state. **Ms. Corr** acknowledged his point and indicated that we try to recognize that fact.

UPDATE ON CONSUMER OUTREACH EFFORT

Charlene Shaw, Charles Job (DWPD)

Charlene Shaw provided an update of the Outreach Team of the Office of Ground Water and Drinking Water (OGWDW). The outreach team supports all OGWDW communication efforts including:

- Safewater Web site
- Safe Drinking Water Hotline and the Enterprise Customer Service Solution (ECSS) database
- Office of Water Resource Center
- National Service Center for Environmental Publications (NSCEP)
- Drinking Water Academy

Ms. Shaw presented the working versions of a new consumer Web site and a new homepage for OGWDW. The goal of these changes is organize the Web site in a way that it more user friendly. Ms. Shaw asked the Council to use the new Web site and submit comments to the Outreach Team.

Mr. Grunenfelder noted that, given current budget restrictions, remote training (versus training performed on site) will be more important. Mr. Grunenfelder asked if the future emphasis for the Drinking Water Academy will be on Webcasts and other online training modules or on site training.

Ms. Shaw responded that OGWDW no longer has the resources to fund as much training on site. EPA is working to determine the most efficient way to distribute information. In the future, EPA hopes to host

more "train the trainer" sessions. These sessions would train a group of people who would then train others when they returned to their state. **Mr. Job** added that EPA hopes to deliver the academy courses through a variety of mediums and to try to tailor each course to the needs of the user.

Douglas Owen commented that the ECSS database sounds like a great way for EPA to learn the types of questions that users ask most frequently and to ensure that EPA organizes the information in the Web site in a way that the user knows where to find that information. Mr. Owen suggested that EPA add a link titled, "Did not find what you are looking for? What is your question?" that would send the user to the ECSS database. This would be an excellent way for EPA to determine the type of information that is missing from the Web site.

Mr. Owen added that EPA should also pay attention to the methods the general public uses to access EPA's Web site. Many users will consult Google or other online search engines. Mr. Owen suggested that EPA determine how search engines prioritize their site listings to ensure that links to EPA's Web site appear first in the list of searches for specific terms.

Olga Morales-Sanchez asked if there will be an opportunity for others to serve as beta testers before the Web site goes live.

Ms. Shaw replied that EPA does not have the resources to fund additional beta testers this year. EPA plans to use others in the agency to serve as beta testers. Ms. Shaw added that EPA's objective is to ensure that users are able to find information easily. If the Web site does not achieve this objective, EPA would like to know so that they can make changes.

Ms. Nuzzo asked if EPA has a sense of who is using the Web site and on what pages they are spending the most time.

Ms. Blette responded that EPA continually tracks the frequency of search terms and the number of users that access each Web page. Ms. Blette adds that it is difficult to make significant changes quickly because of the levels of bureaucracy at the Agency. EPA just launched new changes to its general Web site and the new administration may also propose changes.

Lynn Thorp commended the Outreach Team for their efforts, especially considering their resource constraints. Ms. Thorp suggested that EPA look for a way to find younger beta testers who may be using different methods or thought processes when trying to find information.

WATER SECURITY ACTIVITIES

David Travers, Latisha Mapp, John Whitler (WSD)

David Travers described how the Water Security Division (WSD) identifies priority projects by using specific criteria, coordinated with the National Infrastructure Protection Plan and in collaboration with the Water Sector and Water Government Coordinating Councils. Mr. Travers outlined the priorities of the WSD for this fiscal year. The priorities are as follows:

1. Partnering effort with the Water Security Initiative
2. Water Laboratory Alliance
3. Coordination with the Department of Homeland Security (DHS)
4. Consequence analysis
5. Emergency response and recovery training

6. Mutual aid and assistance
7. Emergency Support Function 3 (ESF-3)
8. Metrics

Latisha Mapp described the Water Laboratory Alliance (WLA). The objectives of the WLA are: to provide capability and capacity to analyze surveillance and triggered response samples for Priority Contaminants; to align and partner with existing laboratory networks; and to build a foundation for drinking water laboratory response capability. WSD conducted a functional exercise in every EPA Region earlier this year that also revealed the need to use and activate the Regional Laboratory Response Plan (RLRP).

The end goal is for the WLA to become a part of the Environmental Laboratory Response Network (ELRN). Even though medium and small systems do not qualify for ELRN participation, EPA recognizes the need to provide training and other tools for these systems.

Tim Kite asked if the EPA laboratories will provide assistance to water systems in Illinois that chose not to participate in the lab fee program. He noted that the costs of laboratory services are high for smaller systems.

Mr. Travers responded that the intention of the laboratory response framework is to answer these questions in advance so that a system does not run into such problems during an emergency.

Ms. Morales-Sanchez noted that laboratories are fairly well structured and have established effective quality assurance and quality control programs. There is, however, a need to educate law enforcement on the proper sampling procedures. Law enforcement officers are often required to take the samples so as not to jeopardize a crime scene, but if they do not know the procedures they can contaminate the samples.

Ms. Nuzzo asked if EPA has developed meaningful relationships with biowatch systems. In an emergency situation, who would receive priority the lab networks or the biowatch systems? Ms. Nuzzo added that there are several efforts that focus on the important of ongoing surveillance and monitoring but that it is difficult to understand the role of each entity (federal, state, region) involved in these efforts.

Mr. Travers replied that a critical part of the contaminant warning systems program is to evaluate the components of the contaminant warning system and to determine how each component functions singularly and in concert. While we emphasize the water quality surveillance, which can lead to improvements and operational efficiencies, we have also been working to emphasize the public health and operational benefits. We are trying to ensure that the system is working and that it is measuring the right things.

Dr. Head commented that the National Association of County and City Health Officials will host a homeland security summit in February 2009. EPA could use this summit as an opportunity to connect with state and local health departments.

John Whitler described the components of the Water and Wastewater Agency Response Network (WARN), a network of interstate mutual aid and assistance networks. The objective of the WARN is to provide an avenue for a utility to get assistance from neighboring communities before asking for federal or state resources. Increasingly WARN programs are used to bring utilities together to understand their vulnerabilities and their response needs. In 2006, the American Water Works Association (AWWA) published *Utilities Helping Utilities: An Action Plan for Mutual Aid Assistance Networks for Water and Wastewater*

Utilities. This document outlines 10 keys steps to develop a WARN and includes a sample agreement and a comparative assessment of existing WARN programs.

Mr. Whitler emphasized that, in its most basic form, WARN is a low- or no-cost action that helps ensure the continuity of operations of the water and wastewater infrastructure vital to the well being of every community. Participation in a WARN agreement will enhance a utility's preparedness and overall resiliency against any disaster. Mr. Whitler also provided examples of successful uses of WARN in California, Florida, Texas, and Colorado.

Mr. Kite commented that in Illinois it is difficult to get small and medium systems to participate in such agreements because they are required to pay the employees from the other utility for their time. Assistance typically comes from a large city, whose employees are paid at a higher rate than at a small or medium utility.

Mr. Whitler replied that the sample agreement allows for flexibility around the cost structure included in the agreement. The selection of cost structure is left to the state.

Mr. Kite then asked what role EPA plays in WARN agreements.

Mr. Whitler responded that EPA plays a supporting role and tries to use the WARN framework to encourage partnership among utilities. EPA recognizes that such agreements are not often appealing to smaller systems but is working on an outreach document that targets the small system community. EPA is also exploring mechanisms to link state WARN programs and to promote water resource sharing between states.

Jeff Cooley mentioned that WARN agreements would not be possible without the support of EPA and AWWA, but that if it turns into a formal bureaucratic process it will take away from the fundamental principles, which is utilities helping utilities. Based on his personal experience in Mississippi during Hurricane Katrina, he also highlighted the importance of entering into agreements before an emergency, rather than during an emergency.

Brian Wheeler emphasized the importance of interstate communication. The establishment of the WARN is only the first step. In order for a WARN program to be effective, it must communicate efficiently with other programs within the state and within neighboring states. He understands that issues need to be worked out, but that it would be better to be more like the electric utilities, where assistance providers are waiting at state borders to get in to help when the storm passes.

Mr. Whitler added that the WARN program functions at the level of the utility. EPA has also recognized the need to improve outreach to state programs, particularly to facilitate the incorporation of wastewater and drinking water systems into state emergency preparedness plans and exercises.

David Saddler observed that WARN programs are often exclusionary. Mr. Saddler's organization, for example, is unable to become a part of a WARN because it is a tribal organization. Mr. Saddler noted that the intent of the WARN is good, but by adding certain legal restrictions that prevent such systems from becoming a part of a WARN, the basic intent of the agreement, utilities helping utilities, is lost.

Ms. Morales-Sanchez stated that, for WARN agreements to be effective along the southern border, guidance and template agreements should be available in Spanish.

Mr. Cooley cited problems with ESF-3 during the response to Hurricane Katrina in 2005 and asked how EPA was working to resolve these problems.

Mr. Travers responded that EPA Headquarters has been working with FEMA and USACE to standardize procedures among the states. EPA also conducted planning exercises to see how ESF-3 is executed. Mr. Travers added that USACE, the agency lead in ESF-3, now knows that EPA can provide certain resources.

In addition, **Mr. Whitler** noted that EPA has established a Critical Infrastructure Partnership Advisory Council (CIPAC) workgroup on Water Sector Preparedness, Emergency Response, and Recovery. The workgroup will develop an all-hazards consequence management plan and will identify actions needed to implement the current priorities within the emergency response sector.

Mr. Cooley observed that there is often concern and confusion within the water sector about whether EPA or DHS has the authority in areas of water security.

Mr. Travers mentioned that Ben Grumbles and his equivalent at DHS spoke of the need to close the gap in the current CFATS program (for chemical security) earlier this year. It is unclear how EPA and DHS will achieve this, but there is consensus that EPA and DHS will need to divide responsibilities.

COUNCIL DISCUSSION ON POTENTIAL AGENCY COMMENTS

Mr. Grunenfelder reminded the Council that a small subgroup was formed to discuss geologic sequestration (GS) and the Council's response to the proposed Rule.

Mr. Wheeler, speaking on behalf of the CO_2 GS subgroup, stated that primary concern of the subgroup is the impact of the proposed Rule on potential drinking water aquifers. Members of the subgroup (Mr. Owens, Mr. Diemer, Ms. Thorp) also raised concerns:

- CO_2 GS involves very complex technologies. There are too many unanswered questions about the impacts of CO_2 injection. It seems that the proposed Rule attempts to extrapolate the results of small-scale examples of CO_2 GS to situations of a much greater magnitude in terms of volume and pressure.
- In order to take such a leap, EPA must take a very cautious approach. EPA should begin by only issuing permits to project sites in areas where a lot is known about the geology and where there would be only minimal risks to underground sources of drinking water (USDWs).
- Model results don't always match reality and models will improve with technology and more data. As sites are developed, there will be a need to continually reevaluate conditions and refine corrective actions.
- It is unlikely that state and federal agencies will have the technical resources needed to evaluate the data submitted in permit applications or to oversee a CO_2 GS program.
- It is unclear how the proposed Rule will define financial responsibility requirements. Who maintains liability for the injected CO_2 over an extended period of time? How will the regulations guarantee this responsibility?
- Is there a role for public water systems that could be affected by injection activities? If it is not explicit in the proposed rule, should it be?

Ann Codrington acknowledged that there are areas of uncertainty in the proposed CO_2 GS Rule, particularly with respect to the potential volumes that could be injected. But, the oil and gas industry has

been injecting CO_2 to extract oil and gas for years now, and EPA can use that information to inform decisions.

Mr. Saddler pointed to the success of the Superfund program, but also noted that many have found ways to circumvent the issue of long-term liability or have been able to avoid remediation all together. Mr. Saddler expressed concern that CO_2 GS permittees could find similar ways to avoid long-term liability.

Mr. Grunenfelder reminded the Council that CO_2 injection is permissible under the current framework of the Underground Injection Control (UIC) program. One possibility for the NDWAC is to recommend that the Rule limit the ability of large scale injections until we learn more about the potentially consequences.

Mr. Kite stated that there is a CO_2 GS project very close to his home in Illinois. He attended the IL EPA public hearing where the state indicated that they were going to hold them to federal requirements. However, he is concerned that if a leak or contamination occurs in the future, no entity will be responsible for responding to the contamination.

Ms. Codrington emphasized that while CO_2 injection is currently permissible as a Class V experimental well (basically the same as a Class I industrial well) permit, the permit must be approved. The intent of the proposed Rule is to examine the siting, construction, and maintenance considerations that EPA should consider before approving such permits to ensure that only permits for locations that are appropriate for CO_2 are issued.

Dennis Diemer stated that the subgroup reviewed AWWA's recommendations to NDWAC while considering possible recommendations to EPA. The subgroup felt that NDWAC should incorporate the AWWA recommendations in what decision the Council makes with regard to CO_2 GS. Ms. Codrington noted that AWWA and other organizations are working together to develop joint comments.

Mr. Smith mentioned that he has received numerous calls from representatives in the oil and gas industry regarding CO_2 GS. These representatives make the argument that, by approving their CO_2 GS permits, they can create jobs, address the energy crisis, and reduce the impacts of climate change. They've also noted that they know more about how it will work than some people think they do and that the industry is willing to go with an EPA rule even if it is strict. After talking with EPA and staff from its Kerr lab, Mr. Smith believes that EPA is heading in the right direction with the Rule. He agrees that EPA should enact regulations for CO_2 GS, and wants to ensure that the practice is safe.

Mr. Wheeler added that the workgroup also realizes that EPA must go forward with regulations but would suggest that EPA create an incremental step to give the Agency and the industry time to gather additional research. If there are good places to start, like oil and gas fields, then these should go forward without everything going forward.

Ms. Morales-Sanchez stated that the development of the proposed Rule is driven by the industry and that EPA is only trying to control what already exists. She also expressed concern that states with UIC primacy would be responsible for approving CO_2 GS permits. Ms. Morales-Sanchez would feel more comfortable if permit approval remained at the federal level.

Nancy Beardsley noted that, in Maine, the drinking water and public health agencies are combined. Maine is currently unable to meet UIC funding requirements and asked if funding would increase if the state would be responsible for approving CO_2 GS permits. **Ms. Head** reinforced that she knows the states do not have sufficient funding and EPA does not have sufficient staff.

Ms. Codrington added that the UIC program is managed by the oil and gas programs of some states. Another pertinent question is whether EPA would allow a state oil and gas program to regulate Class VI wells. However, she could not speculate on whether funding would increase.

Ms. Thorp asked if there are any provisions in the proposed Rule that ensure public water systems that would potentially be affected by a CO_2 GS well have a role in the permitting process. **Ms. Codrington** responded that there is not an explicit requirement to consult public water systems.

Ms. Beardsley suggested that the permitting agency and the affected public water systems meet to examine the proposed site and the potential impacts to drinking water sources. **Ms. Codrington** noted that this could be a good thing to recommend.

Mr. Radke asked if the Science Advisory Board (SAB) reviewed the proposed Rule. **Ms. Codrington** responded that EPA has not asked SAB to review the proposed Rule. **Ms. Blette** added that SAB review is not required under the UIC program. SAB has not asked to review the Rule, either.

Mr. Grunenfelder asked the group to consider a letter to EPA that described the key areas of concern, with a bottom line message that it would be best to take an incremental, slow approach – perhaps approach as a pilot project. **Mr. Smith** responded that characterizing it as a pilot project makes it sound like we need more information before a final determination – he thinks it is better to move forward with what we know to allow it where we know it is o.k. **Mr. Cooley** noted we are weighing the immediate impact of GS on CO_2 emissions versus potential long-term impacts on ground water. He gets nervous about going to large scale deployment even if we know it works on a small scale.

Mr. Wheeler asked what the costs associated with the proposed Rule would include. **Ms Codrington** replied that EPA estimated the number of projects that would likely be active in the next 20 years based on information received from DOE and the Archer Daniels Midland (ADM) project; EPA estimated that 22 facilities would begin injecting in that period. The $15 million associated with the Rule would only cover the cost of injection (not capture, transport, or closure).

Carl Stephani suggested that EPA include a requirement to confer with regional planning committees when reviewing CO_2 GS permits, especially if the public water systems potentially affected by the injection are not prepared to provide input on the permitting decision.

Douglas Owen agreed to work on the subgroup's draft letter for Council review for further discussion later in the meeting.

DAY 2 (November 20th)

Ben Grumbles thanked the Council for its continued service and advice on key drinking water issues. Mr. Grumbles spent time with President Elect Obama's transition team and expressed confidence that sustainable infrastructure will continue to be a priority for the new administration at EPA. Mr. Grumbles also spoke with the transition team about nutrient management and the interface between water quality and water quantity.

The presentations to the Council today will be from staff members that have taken a leadership role in the office's sustainable infrastructure efforts. The emphasis on management is not because of regulation, but as an essential part of effective utility management. While listening to the presentations, Mr. Grumbles encouraged the Council to think of ways that the drinking water program can become more involved.

Mr. Grunenfelder stated that, under the leadership of Mr. Grumbles and Cynthia Dougherty, the relationship between EPA and the states has come to be a true partnership. Mr. Grunenfelder looks forward to continuing this partnership with the new EPA administration.

Mr. Smith echoed Mr. Grunenfelder's comment and asked Mr. Grumbles what he thinks EPA's role should be in mediating the demands of water quality versus water quantity in the future.

Mr. Grumbles acknowledged that there is a healthy tension between these two issues. He replied that EPA would have to be respectful of Congress and the statutory authority bestowed by Congress before EPA could address water quantity through a regulatory framework. In addition, EPA will need to determine how to reduce storm water pollution without becoming a water quantity regulator in terms of flow. In the context of ground water, EPA will need to promote programs that reduce waste and inefficiency, reuse water, restore watersheds that are impaired, and embrace source water protection. One of the issues raised in the context of global climate change is the growing interest and need for water reuse and reclamation. Right now standards for water reuse are up to the states, but he can envision that there will be calls for national standards. The Council may want to consider the public health implications of such programs.

Mr. Grumbles added that the need to develop clean energy resources will become more important in the future. This brings to bear many environmental issues associated with coal bed methane and the mining of various resources. Future EPA leaders will struggle with the environmental cost of corn-based ethanol and the water quality and water quantity implications of ethanol production. Congress now requires life cycle analysis, and Mr. Grumbles wants to ensure that water is part of that analysis. The nexus between energy and water is inescapable and should also be part of this discussion.

Mr. Grunenfelder stated that an ongoing issue is the public's fear of microconstituents in water. Although the Office of Water receives the most pressure from the public about contaminants, the problem is not confined to drinking water. Mr. Grunenfelder asked Mr. Grumbles if there have been any broad agency or multi agency discussions about the sources of contamination.

Mr. Grumbles replied that problems related to pharmaceuticals will be relevant well into the future. EPA strives not only to strengthen scientific research, but to improve risk communication and to ensure that the information conveyed to the public is accurate and in the right context. The other component is to build greater partnerships with stakeholders and with other agencies, the Food and Drug Administration (FDA) in particular.

Mr. Grumbles added that the conflict between sound science and headline-driven decision-making can also be a problem in the Candidate Contaminant List (CCL) process. Both the CCL and the regulatory determination processes will continue to benefit from transparency and review from advisory groups. EPA must continue to work to maintain the integrity of that process.

EFFECTIVE WATER UTILITY MANAGEMENT AND ENERGY MANAGEMENT

Jim Horne (OWM)

Jim Horne described EPA's efforts to move the water industry towards sustainable utility management. Water and wastewater utilities face unprecedented challenges: aging infrastructure and workforce, continuing regulatory challenges, unclear prospects for future federal funding, increasing customer and community demands for service, and the short-term perspective of elected officials. EPA selected a steering committee from a wide spectrum of utilities and private sector providers. The committee

recommended a sector-wide strategy to encourage effective utility management and to identify, encourage, and recognize excellence in water and wastewater utility management.

One of the key components to EPA's utility management strategy is the Effective Utility Management *Primer*. The *Primer* was developed by a group of utility advisors and walks users through a series of steps to: assess current conditions and priorities, rank importance of attributes, document results of ranking, choose attributes to work on, and establish performance measures.

Mr. Kite stated that many employees are young and have a need for training. He sees a real need for wastewater utility operators who are not required to participate in continuing education in order to stay current with the latest technologies. This will become a bigger challenge in the future, especially because of problems related to pharmaceuticals and the need to promote the best treatment practices.

Mr. Horne noted that one of the most important attributes to EPA's strategy is the issue of employee retention. EPA plans to find utilities that have been able to effective address employee training and retention and use their stories and lessons learned in a series of case studies.

Mr. Wheeler applauded the development of this collaboration. He is a member of 4 water organizations and is pleased to see them working together (and frustrated when they don't). He viewed this as a good model to use for future efforts. Mr. Wheeler adds that measurement is the key to effective water utility management. There is a perception that utilities will be punished for their results. AWWA has been very active in reworking this perception.

Dr. Head agreed with Mr. Wheeler and added that the establishment of performance measures is a part of the systems approach to management. The examination of true quality and outcomes versus outputs will help to move the water sector in the right direction in the future.

Mr. Diemer noted that he was skeptical of the approach when his utility first began to use performance measures. But, in the last 4 years he has really seen the benefits of these efforts. Mr. Diemer's utility developed 25 performance measures that they report to their Board every year. Using this management practice has aligned staff and the Board in support of a district-wide budget and has proved to be an effective communication tool.

Mr. Saddler complimented EPA's efforts and stated that the *Primer* will give utilities of every size the resources needed to develop effective management plans.

Mr. Horne added that one of the toughest challenges in the future will be to work with utilities to communicate effectively with local officials. Mr. Horne also highlighted the importance of energy management at water utilities. Energy represents the largest controllable cost of providing water or wastewater services to the public and represents 25 – 30% of total plant operations and maintenance costs. EPA wants to emphasize a whole system approach and to encourage utilities to manage energy on an ongoing basis.

EPA worked with representatives in Region 1 to develop an energy management guidebook. The guidebook is designed to help utilities asses their current energy costs and processes, to set measurable performance goals, and the monitor and measure progress over time. EPA hosted several workshops in Region 1 and will host additional workshops in other EPA regions in 2009. The next challenge is to help utilities to establish ongoing energy management programs. Ultimately, EPA would like to create an energy management program that would track goals and cost reductions achieved at water utilities.

Dr. Head stated that cost savings and efficiencies will really drive this effort at the utilities. **Mr. Saddler** added that energy management is one area where every utility, regardless of size, has an opportunity to save money without investing a large amount of money. Load management can save money for both water and electric utilities and electric utilities might be able to support funding some energy efficiency measures. He believes that talking about it at the national level will help advance the effort.

Ms. Thorp asked if there are examples of drinking water utilities that have encountered problems with customers when trying to make changes in energy cost and uses. What is the role of customers or the public to help utilities if they run into barriers while trying to establish energy management programs?

Mr. Horne responded that, from the limited feedback received thus far, public perception could be a challenge. There is often the impression that if the utility is not in trouble, the utility is running smoothly. An energy management system could be a way for the utility to build credibility. By showing its customers the steps taken towards effective management, the utility would have more data to justify a rate increase.

Ms. Thorp added that energy efficiency is currently of interest to the public. Many people are very excited about energy issues. This might be an opportunity for the utility to engage its customers to help convince elective officials of the benefits of effective utility management.

Mr. Horne emphasized the importance of state agencies in EPA's effort. The Commonwealth of Massachusetts in particular has a very active program and has been very helpful.

Mr. Owen added that this is an important start because there are opportunities for incremental improvements which overall add up. But he stressed the need to plan for the future – how are we going to provide power/energy for our systems? We need to start thinking differently now, particularly if we are going to need to treat water supplies of diminishing quality because some of the treatment systems are energy intensive.

Mr. Cooley noted that, given the state of the economy, it's good to get this message out now because utilities will be asked what they can do to reduce energy use. Materials that can help them make small low-cost changes will be important.

Mr. Saddler stated that the water industry as a whole does not communicate effectively. Utilities should take these opportunities to speak to the public about energy efficiency instead of waiting for the public to come to them.

Dr. Head encourage EPA to approach ICLEI (Local Governments and Sustainability, www.iclei.org), an organization that had focused on energy efficiency for many years. This organization would be a natural partner to EPA for these efforts. **Mr. Stephani** suggested that EPA also use regional planning commissions as a bridge to get to town managers. He noted that we could market materials through the National Association of Regional Councils (NARC) and the International City/County Management Association (ICMA).

Mr. Horne added that the next phase of this program is to reach out to those types of organizations. EPA will need to determine the type of information they can give organizations like ICMA, ICLE, and the American Public Works Association (APWA).

ASSET MANAGEMENT FOR SMALL SYSTEMS – DEMO OF CUPSS

Katie Porter (DWPD)

Katie Porter presented the Check Up Program for Small Systems (CUPSS) application. CUPSS is a simple, free asset management tool for small drinking water and wastewater utilities. EPA launched CUPSS in April 2008. Using CUPSS, a small utility can develop a record of assets, a schedule of required assets, an understanding of its financial situation, and an asset management plan tailored to the needs of the system. CUPSS can provide the utility with the information needed to communicate effectively with decisions makers. The application also ensures that the utility's data is organized in a consistent format; if one employee leaves, his or her replacement will be able to get up to speed quickly.

The CUPSS application and guidance materials are available on the CUPSS Web site (www.epa.gov/cupss) at no cost to utilities. There is also a Web page specifically for CUPSS trainers. The CUPSS trainer's Web site has over 300 members, of every level of expertise. EPA hopes to build this network in the future.

Mr. Kite indicated that they thought the product would be useful for small systems and that he would be interested in becoming a trainer.

Ms. Beardsley asked if the CUPSS team includes representatives from state capacity development programs.

Ms. Porter responded that state representatives from capacity development groups are included in this effort. EPA also relies on technical assistance provided by the National Rural Water Association (NRWA) and the Rural Community Assistance Program (RCAP).

Mr. Cooley observed that, as a former provider of technical assistance in Alabama, it was his experience that excitement with new technical innovations eventually wanes during the maintenance phase. One benefit of the CUPSS application is that it is designed to be easy to maintain.

Mr. Saddler added that many aspects of the CUPSS application align with emergency assessment plans; CUPSS will be a useful tool for the small systems he works with.

OTHER FEDERAL ADVISORY COMMITTEE EFFORTS ON SUSTAINABLE INFRASTRUCTURE

Andy Crossland (OWM), Fran Eargle (OCIR)

Andy Crossland summarized the recommendations of the National Advisory Council for Environmental Policy and Technology (NACEPT) in the area of sustainable infrastructure. EPA asked NACEPT to provide input on EPA's role in promoting watershed approaches to infrastructure (the "Watershed Pillar" of sustainability). NACEPT made 26 recommendations to EPA. Several themes emerged from these recommendations:

- EPA should adopt more of a social marketing mindset.
- EPA delivers a mixed or inconsistent message – instead EPA should use many avenues to deliver messages and incentivize.
- Direct EPA involvement is very important – EPA should emphasize the need to bring messages to the local level.
- Green infrastructure.
- Improved collaboration with the Department of Transportation.

NACEPT also observed that EPA's programs exclusively involve either drinking water or wastewater. It is difficult for the utility to focus on an approach that integrates drinking water and wastewater if EPA's programs and messages are disconnected. NACEPT recommended that EPA fully adopt integrated water resource planning and watershed management as the governing framework for all Office of Water regulations and policy.

Mr. Crossland also noted that he is looking for input on EPA's marketing work on communicating utility concerns to local officials. He asked if NDWAC members would be interested in assisting him on this effort.

Mr. Smith stated that the Western Governor's Association (WGA) and the Western States Water Council (WSWC) emphasize integrated water planning that is supported by the federal government, but led by the states. EPA's approach seems to emphasize a top-down approach that differs from that of the WGA and WSWC. Mr. Smith recommended that EPA work with other federal agencies to adopt a comprehensive strategy that states can implement effectively through their state water plans.

Cynthia Dougherty reminded the Council that the recommendations presented were from an outside advisory committee to EPA; these were not EPA's recommendations. **Mr. Crossland** added that EPA frequently receives feedback consistent with Mr. Smith's statement. But, if such initiatives should be defined by the state, Mr. Crossland asked what the role should be for EPA.

Mr. Smith responded that EPA should encourage collaboration between states and provide the states with the resources and tools needed to develop comprehensive water plans.

Mr. Grunenfelder added that many communities in Washington have been using watershed planning approaches. Because each approach is so specific to the interests and water resource needs of the community, it makes it hard to develop a comprehensive state water plan.

Mr. Wheeler observed that water quantity often drives the utilities. Regional state agencies often provide incentives for regional water projects that incorporate drinking water, storm water, and wastewater. Mr. Wheeler suggested that EPA could provide similar incentives to encourage utilities to participate in these types of programs that make use of all water resources in an integrated fashion.

Fran Eargle describes the recent efforts of the Local Government Advisory Committee (LGAC). The LGAC assists EPA in developing stronger partnerships with local governments. The committee provides recommendations to EPA on a broad range of topics. The top priorities for the current LGAC include:

- EPA's Federalism Guidance – which was recently changed to lower the threshold at which consultation must occur and to broaden the groups that must be consulted to include those representing small communities.
- Water infrastructure needs – using new approaches to communicate information (see DVD mention below).
- Emerging contaminants – particularly with respect to pharmaceuticals and stewardship of unused drugs.
- Green infrastructure – with respect to improving promotion at the local level.
- Climate change and energy efficiency – creating an impacts subgroup to look at water availability and source water protection.
- Improved relationship with utilities – may be a role for NDWAC to work with LGAC.

- The establishment of a small communities desk at EPA.

Ms. Eargle distributed "Water Infrastructure: Successful Strategies for Local Leadership," a DVD created by LGAC in 2007. The DVD features five local officials who share the approaches they used to successfully meet the needs of their communities for sustainable water infrastructure.

Mr. Stephani complimented the LGAC for the creation of the DVD.

Mr. Kite mentioned that full-cost pricing should be a priority for the water sector in the future. **Mr. Saddler** agreed with Mr. Kite. Mr. Saddler also stressed the need to approach water from a regional level.

Ms. Eargle added that the strength of the DVD is its focus on water as an asset.

EFFICIENT WATER USE THROUGH THE WATERSENSE PROGRAM

Virginia Lee (OWM)

Virginia Lee presented EPA's WaterSense program. Launched in June of 2006, WaterSense is a voluntary partnership that focuses on residential water use. The program's primary tool is the WaterSense label. The label is a simple way for consumers to identify products that perform well and save water. To earn the WaterSense label, products must pass independent, third party certification.

The WaterSense program has an extensive partner network that includes over 500 utilities. The partnership is free, and EPA encourages drinking water utilities to join. The goal of the partnership is to help a water utility start a water efficiency program or to supplement a utility's current plan. WaterSense partners incorporate the WaterSense brand into water efficiency campaigns, work with the media to promote WaterSense and water efficiency, and coordinate their efforts with EPA, manufacturers, and retail partners.

Dr. Head asked whether water conservation would help utilities save money. Are any utilities looking to change rates from focusing on volume ($ per gallon) to a delivery charge? **Ms. Lee** noted that identifying cost savings is a challenge.

Mr. Wheeler observed that water conservation programs could potentially decrease the revenue generated for the water utility. In order to address this issue, water utilities must also plan to adjust their rate structure. Mr. Wheeler commended the WaterSense program and added that, under the Florida Water Star Program, all new construction in Florida must meet certain water efficiency requirements for the interior of the home. However, Mr. Wheeler noted that 50% of the demand is for outdoor water and cutting that is a key for him to be able to meet future demand. He noted that the "cheapest next gallon of water is from conservation".

Ms. Lee added that the WaterSense program has been very engaged with the Leadership in Energy and Environmental Design (LEED) certification program to increase the number of points that can or must be earned from water efficiency measures.

Mr. Radke stated that CDC recently signed onto the WaterSense program. **Ms. Lee** added that CDC's involvement has increased the opportunity for broader federal partnerships. EPA hopes to work with CDC to develop specifications for lab products and medical equipment.

Mr. Grunenfelder commended both the WaterSense program and drinking water utilities for their efforts to promote water efficiency. According to Mr. Grunenfelder, water in many parts of the country is used

more for agriculture than for residential purposes. He asked if the Office of Water plans to address agricultural users.

Ms. Lee replied that the focus of the WaterSense program is on consumer behavior and publicly supplied water, but EPA could reach out to the Department of Agriculture in the future.

Mr. Kite noted that his pumping goes up 50% because of yard watering by people who don't have automatic sensors. He was also interested in knowing about water efficiency for washing machines and dishwashers. **Ms. Lee** responded that we are working with the EnergyStar program to get water specifications included in their program. She also noted that we are looking a program for certifying New Homes. The Agency also released a water budget tool for landscapers for comment.

Ms. Beardsley asked if the WaterSense program will consider promoting true leadless faucets when labeling faucets for the program. **Ms. Lee** responded that the had not looked at this specifically, but that water from any labeled product must comply with all national regulations, including the Lead and Copper Rule. Mr. Grunenfelder noted that pursuing true lead-free faucets was a recommendation of the NDWAC effort on the Lead and Copper Rule.

Ms. Blette asked if there is any opposition to leadless faucets. **Ms. Lee** replied that the leadless alternatives are often expensive. **Ms. Blette** noted that providing a truly leadless option would give a manufacturer the opportunity to further differentiate its product. **Mr. Diemer** added California law requires that all plumbing fixtures be free of lead. While plumbing manufacturers were strongly opposed to this requirement, they are now featuring lead-free products in their marketing campaigns.

Ms. Nuzzo suggested that the WaterSense program partner with commercial and real estate organizations. Real estate companies typically operate in many states and would be interested to learn about the products endorsed by EPA.

GREEN INFRASTRUCTURE

Jenny Molloy (OWM)

Jenny Molloy described EPA's Green Infrastructure Strategy and highlighted the benefit of green infrastructure to wet weather management. Stormwater discharges of a high volume widen streams and lead to incision and downward erosion. Stormwater management designs that only address discharge rates can exacerbate these problems. Green infrastructure uses vegetation and soils in urban and suburban areas to manage and treat precipitation naturally (rather than collecting it in pipes) and therefore preserves natural systems.

Examples of green infrastructure include:

- Bioinfiltration
- Open swales
- Parking lot infiltration areas
- Rain gardens
- Planters
- Permeable and porous pavements
- Green roofs
- Pocket wetlands
- Vegetated buffers and landscaping

- Rainwater harvesting and use

Case studies across the country have revealed the numerous benefits of and cost savings associated with green infrastructure. Green infrastructure can improve air quality, increase water supply and surface water recharge, mitigate climate change, improve the health of the community, and save energy.

Mr. Grunenfelder echoed that there are many benefits from green infrastructure – including decreasing obesity if communities are more livable/walkable. He supports getting local governments to embrace the concept. **Ms. Molloy** agreed and stated that OWM would be interested in suggestions as to how to better integrate drinking water into these efforts.

Jeff Griffiths observed that the public is typically unaware of the link between high water flows and waterborne diseases and epidemics. Green infrastructure also benefits public health. Dr. Griffiths asked if OWM has established a relationship with the Department of Transportation (DOT) to discuss issues related to infrastructure development. **Ms. Molloy** agreed that a relationship with DOT would be beneficial.

Mr. Owen stated that the storm water research program at the University of New Hampshire (UNH) has collected valuable information about the use of porous pavement materials for improving drainage and other low impact stormwater approaches. Mr. Owen suggested that EPA work with UNH to disseminate their results to a wider audience.

Ms. Molloy responded that one of the objectives of EPA's Green Infrastructure Strategy is not just to conduct research but to distribute the research and conclusions of other groups.

Mr. Wheeler indicated that he saw a good nexus between this and water efficiency. **Mr. Crossland** indicated that he also saw a nexus with source water protection. He asked if there were examples of benefits? **Ms. Molloy** agreed that there are probably benefits, but that we still need to track down examples. She expects we will see benefits in places you might not expect.

PUBLIC PARTICIPATION

There were no public comments.

COUNCIL DISCUSSION ON PRELIMINARY REGULATORY DETERMINATION FOR PERCHLORATE

Mr. Grunenfelder distributed a draft letter to Administrator Johnson in response to EPA's preliminary regulatory determination for perchlorate. Mr. Grunenfelder explained that a subgroup of the Council was unable to reach a consensus on the regulatory determination. The Council subgroup has decided to recommend that EPA bolster its health effects research instead. Research insufficiency was a significant component of the arguments of Council members who agreed with the preliminary determination and of Council members who disagreed with the determination. In addition, the draft letter emphasizes the Council's support of the CCL process and includes a recommendation for EPA to refocus research priorities in order to ensure sound health effects data are available to better inform future CCL decision-making processes.

Mr. Saddler commented that the draft letter was a fair representation of the concerns raised by the subgroup of Council members in the perchlorate conference call discussion. He highlighted that EPA

should look at regional issues when setting standards because a problem in one state may not be a problem in every state. Mr. Saddler added that the letter recognizes the right of each state to develop its own perchlorate standard in the absence of a federal standard.

Ms. Nuzzo asked if the intent of the letter is to recommend a more comprehensive research agenda to prevent future controversies or to recommend that, in the future, there is enough time for adequate science.

Mr. Grunenfelder responded that the intent is to find ways to support the CCL process in the future. The recommendation is to allow adequate time for research before making a regulatory determination. The intent is to use perchlorate as an example to show why more robust research would be valuable.

Mr. Diemer stated that the letter effectively describes one of the disappointments of the CCL process. The CCL process identifies contaminants of highest concern, but it is only at the end of the process that we learn that EPA does not have sufficient data to support a scientific determination. EPA should coordinate research agendas so that the appropriate data is available for all contaminants included in the CCL. Mr. Diemer acknowledged that political interest can often influence regulatory decisions but that sound underlying science can only improve this process.

Mr. Grunenfelder added that states often feel pressure from the public to establish advisories or limits once an unregulated contaminant has been found in a drinking water source. The general public is looking to determine the risks associated with the contaminant and the specific detection level at which the contaminant will become a public health concern.

Mr. Owen observed that, in the draft letter, the Council strongly recommends EPA increase funding for health effects research. EPA currently faces budget constraints. The economic forecast will be poor in the near future, if not for a longer period of time. Where will EPA obtain the resources needed to fund additional research?

Mr. Grunenfelder responded that it is unlikely that EPA will receive additional funding, but EPA could re-prioritize its research efforts. **Dr. Griffiths** added that the SAB also recognizes the need for additional scientific research concerning these contaminants. It is within the purview of the Council to advise the Administrator on research priorities.

Ms. Blette noted that the draft letter does not provide a recommendation as to whether EPA should develop a regulation for perchlorate or not. **Ms. Thorp** responded that the Council did not provide such a recommendation because the Council members could not come to a consensus.

Mr. Grunenfelder added that the letter recommends a holistic drinking water research plan. The recommendation is nearly identical to the recommendation put forth in June. The Council decided to use the preliminary regulatory determination for perchlorate to raise this issue again. Mr. Grunenfelder will edit the letter to reflect the comments of the Council and will circulate a revised version of the letter.

FULL-COST PRICING

Peter Shanaghan (DWPD)

Peter Shanaghan compared the drinking water infrastructure needs of the 20th Century with those of the 21st Century to highlight the need for full-cost pricing structures at drinking water utilities. Drinking water systems were built in the 20th Century to serve growing populations and increasing demand. Long-term

planning documents were not relevant because the drinking water infrastructure was relatively young. But, in the 21st Century investment in replacement of aging infrastructure will likely need to increase by a factor of 2 to 4 times. It is likely that the rate of pipe replacement, for example, will increase from 0.5% per year to 2.0% per year. These changes will have to take place in the context of declining per capita use as customers adopt water efficiency practices.

In order to move utility capital planning and rate-setting practices into the replacement era of the 21st century, EPA and the water sector must address the following key questions and issues:

- How can we work together to help water utilities meet the challenges of the replacement era?
- How can we help utilities implement asset management and other tools to understand what lies ahead?
- What does it mean for an existing customer to pay the "full cost" of service?
- How do we factor in coming replacement of assets fully bought and paid for long ago?
- Over time, how will capital finance change?
- How do you design rates in an era of declining per capita use?
- How can the water utilities buy and maintain public understanding and support?
- How can the water utility convince the customers that they need to pay more even though they are using less water?

Dr. Head observed that the practice of charging customers solely based on volume is no longer in the best interest of the water utility. The rate structure should also include charges for basic services. But, she agrees with a statement by Mr. Wheeler that if the rate is not based on volume, customers will no longer have an incentive to conserve water.

Mr. Cooley suggested that utilities could incorporate minimum charges for future infrastructure projects into their current water rates, such that when a pipe that should last 100 years is installed, every year the system should deposit 1/100th of the amount to replace it in the bank.

Mr. Shanaghan responded that this is a potential strategy but that the utility must be careful to ensure that the customer does not pay for the same piece of infrastructure twice. There is often a resistance to the establishment of a reserve fund because the utility will eventually accumulate a large sum of money. If the money is not spent immediately, local officials will request that the money be spent elsewhere. Another approach would be to finance the infrastructure over the life of the asset instead of the life of the loan. But, then the utility would also have to determine who would pay for the depreciation, because the same person should pay for the installation and the depreciation.

Mr. Saddler stated that the industry must move away from charging customers solely for the cost of a gallon of water provided; the service provided to the customer must also be factored into the rate. The water industry as a whole should invest in more effective consumer education so that the public is aware of the full cost of service.

Mr. Wheeler noted that when looking at reserve funds, it is important to work with the rating agencies because if a local government is told that its rating will depend on the presence of a rehab/replacement fund, it would build potential for their use. With respect to who funds growth, Mr. Wheeler noted that in Florida there are protected accounts for growth where new customers pay an impact fee that can only be used to fund growth. He noted that there has to be a rational nexus between water and fixed price of services. Most other utility services have pricing models that get at this, but water has not picked up on

them. He believes part of the problem lies with the construction grants program which built wastewater treatment plants with no provision for long-term Replacement accounts.

Mr. Wheeler also mentioned that water utilities in Australia and New Zealand distribute a training video to public officials. This video relates the water utility to a car and explains the maintenance required to keep the utility running smoothly.

Mr. Owen noted that the water bills could be itemized similar to energy bills, which have a generation fee, transmission fee, and usage fee. The water bill could be a way to introduce the public to the different components of water service such as development and treatment in addition to usage.

Mr. Kite noted that when thinking about the life of assets, you have to consider the material. His system has a lot of PVC pipe and he's not sure how long it will last. Also, because the quality of water going through distribution systems is better, he wonders if pipe may last longer than originally conceived.

Mr. Smith stated that the replacement of aging infrastructure is particularly difficult for communities that are also declining in population. Mr. Smith asked if the state or region would have the authority to provide lower interest rates for State Revolving Fund (SRF) loans as an incentive for utilities that use asset management. **Mr. Shanaghan** responded that EPA would be interested in having that discussion with any region or state. [Note: This would be allowable in the SRF program because states have broad flexibility in setting interest rates as long as they are between zero percent and market rate.]

Ms. Morales-Sanchez mentioned that if reserve funds for capital improvement are included in public financial documents, customers are less receptive to rate increases. **Mr. Shanaghan** replied that reserve funds have been proposed that would essentially operate as social security for water systems. These types of reserve funds would not be reported on the balance sheet of the state or the utility.

Mr. Saddler added that, with tools such as CUPSS and the sanitary survey, small- and medium-sized utilities can begin to understand the full cost of service provided by the utility and can use that information to educate the public. He noted that a rate survey tool would also be useful.

Mr. Cooley added that, as customers begin to move away from bottled water, many utilities have developed "Back to the Tap" campaigns. Mr. Cooley suggested that such campaigns would be a great opportunity for the utility to explain the true costs of water service.

COUNCIL DISCUSSION ON SUSTAINABLE INFRASTRUCTURE IN THE FUTURE

Mr. Grunenfelder asked Ms. Dougherty and Mr. Shanaghan if the economic stimulus package would lead to increased funding for water infrastructure.

Ms. Dougherty responded that Congress proposed an additional economic stimulus package that would include $6.5 billion for the Clean Water SRF and $1 billion for the Drinking Water SRF. If Congress were to include infrastructure in the new economic stimulus package, they would expect the projects to start as soon as possible. EPA has started to talk to the Association of State and Interstate Water Pollution Control Agencies (ASIWPCA) and also to the state SRF programs to determine the state of their funding lists. EPA is working to ensure that states are ready to use the money if it became available.

Mr. Shanaghan added that EPA has been working with states to identify projects on their state priority lists that could begin construction quickly if the stimulus package is passed. EPA is also trying to target

larger utilities that have not requested state SRF funds in the past but that may now be interested because of the conditions in the municipal debt markets. Mr. Shanaghan also noted that there is a possibility that the stimulus legislation could be structured to allow EPA to award stimulus grants as lump sums directly to the state SRF instead of using the more lengthy process currently in place.

Ms. Beardsley asked if states would be required to match the additional SRF funds from the stimulus package. **Ms. Dougherty** replied that the match requirement was waived under the proposed plan outlined in HR 7110.

Mr. Saddler suggested that EPA approach other federal agencies that fund drinking water projects to see if they have projects that could begin quickly. **Ms. Dougherty** responded that EPA is unable to transfer the funds to entities other than state SRF programs.

Mr. Crossland observed that funding these priority projects regardless of whether or not they foster long-term thinking could detract from EPA's sustainability goal.

Mr. Grunenfelder asked if there was interest among the Council in forming a subgroup for sustainable infrastructure and another for full-cost pricing. **Mr. Wheeler** responded that, before making such a decision, it would be helpful to first determine what the Council can do to effectively help EPA.

Mr. Shanaghan responded that it would be useful if the Council formed a subgroup to identify methods for the utility to define and achieve full cost pricing. **Mr. Crossland** added that he would be interested in forming a NDWAC subgroup to determine how to improve the relationships between local officials and water utilities. Mr. Shanaghan and Mr. Crossland will write descriptions of the proposed subgroups so that the Council can bring the issue to a vote on Day 3.

Mr. Smith motioned that NDWAC write a letter to the current and future Administrators acknowledging the value of the sustainable infrastructure initiative and encouraging the continuation of the initiative in the future.

Dr. Head seconded the motion.

Vote on motion – 14 Yea, 0 nay, 0 absent. Motion carries.

Mr. Smith complimented EPA presentations and the staff present at the meeting. **Mr. Cooley** added that EPA's sustainability initiative seems more cohesive when aspects of the program are presented at the same time. Water utilities can really benefit from the products and guidance of EPA in the area of asset management.

DAY 3 (November 21st)

UPDATE ON REGULATORY MATTERS

Pam Barr (SRMD)

Pam Barr provided regulatory updates from EPA's Office of Ground Water and Drinking Water (OGWDW). EPA published the draft CCL 3 in February 2008 and consulted with SAB in the spring and summer of this year; SAB expects to release a report soon. EPA plans to publish CCL 3 in the summer of 2009. In July 2008, EPA published a final determination "not to regulate" 11 of the 51 contaminants listed

on the CCL 2. EPA is currently gathering heath and occurrence information for the CCL 3 contaminants; final regulatory determinations for CCL 3 are due in July 2013.

On October 10, 2008, EPA published a notice in the *Federal Register* seeking comment on its decision "not to regulate" perchlorate. EPA plans to make the final determination after considering information provided in the public comment period, which has been extended to November 28, 2008. EPA plans to publish a health advisory for perchlorate with the publication of the final regulatory determination.

EPA continues to integrate health, analytical, treatment, occurrence, and other information in order to make preliminary decisions based on the second 6 Year Review. EPA plans to publish the results of the preliminary review in the summer of 2009. EPA is currently assessing input received at a stakeholder meeting held last month to discuss long-term issues related to the Lead and Copper Rule (LCR).

EPA developed two new health-based measures in 2008: a chemical measure of the effectiveness of the Stage 1 and Stage 2 Disinfection By-products Rules, and a microbial measure of the effectiveness of the Long-Term 2 Enhanced Surface Water Rule. The next step for the Office of Water is to include the new health-based performance measures into its program Performance Assessment and Rating Tool (PART). EPA will also continue to collaborate with CDC on improving national waterborne illness reporting infrastructure.

Dr. Head asked if Ms. Barr could review the timing of the perchlorate decision. **Ms. Barr** responded that EPA will analyze the comments received during the comment period and draft a final notice. The Administrator will then make a decision, and EPA will publish the regulatory determination. Ms. Barr emphasized that a regulatory determination is not a rule. When a rule is promulgated, it is not effective for 60-days. A new administration could put a rule on hold after taking office if the rule was promulgated in the last 60 days. This standard does not apply to negative regulatory determinations.

Mr. Kite asked if EPA considers the financial impact to systems potentially affected by the rule before making a final decision.

Ms. Barr replied that cost-benefit analysis is an essential aspect of EPA's regulatory process. In the economic analysis that is developed for every proposed rule, EPA examines the regulatory burden placed on systems of all sizes and types. **Ms. Dougherty** added that a small system review is also included in EPA's regulatory development. NDWAC reviewed the cost analysis for the Arsenic Rule and provided cost recommendations to EPA for future rule makings.

Mr. Grunenfelder distributed a revised draft of the letter to EPA from NDWAC concerning the preliminary regulatory determination for perchlorate and asked the Council to review the draft.

Ms. Thorp asked EPA if they would find the Council's recommendation useful. **Ms. Dougherty** responded that it is always helpful to recommend research priorities. It is often difficult for OGWDW to convince ORD to fund future research needs in addition to their immediate needs.

Eric Burneson expressed concern with the sentence: "The limitations of the existing research available to support EPA's recent preliminary determination for perchlorate highlights the need and value to refocus resources within EPA for this type of expanded research." If the NDWAC submitted a letter with this sentence, Mr. Burneson would be concerned with the future precedent it would set. Perchlorate is one of the most robustly studied contaminants. What amount of research would it take for EPA to make future regulatory determinations?

Ms. Nuzzo asked if it would be helpful to EPA for the letter to describe the differences of opinion on the Council surrounding the perchlorate determination. **Ms. Dougherty** replied that recommendations from NDWAC are most useful if the entire Council agrees with the recommendations.

Mr. Grunenfelder stated that the intention of the research sentence identified by Mr. Burneson was to highlight the limitations of the data not necessarily the amount of data. Several toxicologists have interpreted the data in different ways and have proposed different reference dose (RfD) levels.

Ms. Thorp added that the word "*limited"* characterizes the data in a way that could have consequences for future EPA regulatory decisions. This is not the intent of the Council's letter.

Dr. Griffiths observed that the intention of the letter is the need for research; especially research devoted to the CCL contaminants. The SAB would strongly support a letter that reinforces the need for reliable information and adequate funding for research.

Mr. Diemer suggested that the Council change the wording to "limitations of existing human health impacts data available to support EPA's decision," so that the focus is more narrow.

Mr. Burneson reminded the Council that the perchlorate RfD is based on a clinical study of humans. In terms of human health studies, perchlorate is very well characterized. California and Massachusetts used the same studies to make their determinations to regulate perchlorate.

Mr. Diemer suggested that the Council eliminate the contentious sentence and replace it with the sentences supporting the CCL process (found in the fourth paragraph).

Dr. Head motioned that NDWAC send a letter to the Administrator that includes Mr. Diemer's revision.

Mr. Diemer seconded the motion.

Vote on motion – 14 Yea, 0 nay, 0 absent. Motion carries.

GEOLOGIC SEQUESTRATION AND OTHER UIC ACTIVITIES

Steve Heare, Ann Codrington (DWPD)

Steve Heare responded to comments raised in the CO_2 GS background conference call regarding pressure. EPA's pressure data is anecdotal, but it is clear that the injection pressure varies according to the depth of the formation. The only requirement in the proposed Rule is that the injection pressure cannot exceed 90% of the pressure at which the formation would fracture. EPA has received comments that recommend that the pressure threshold requirement should be based on the specifics of the site.

Mr. Grunenfelder distributed a revised draft letter prepared by the CO_2 GS subgroup to the Council members for further review and discussion. He asked the CO_2 GS subgroup for clarification on the recommendation to change the definition of a USDW to include bodies with total dissolved solids (TDS) greater than 10,000 ppm and on the recommendation to consult with the Department of Homeland Security (DHS).

Mr. Diemer stated that he suggested the security language. Given the magnitude of the proposed sites and the technologies used for injection, Mr. Diemer would like the Rule to require a site review from DHS to ensure that the site is protected from terrorism and other security threats.

Mr. Heare stated that virtually all of the CO_2 GS sites will be at oil and gas recovery operations, which currently inject CO_2 around the country.

Ms. Dougherty added that NDWAC is unable to provide recommendations to DHS. EPA is only regulating the injection of CO_2 (DOT will regulate transport and the CO_2 pipelines), but will work with DOT and other agencies to ensure that the entire carbon capture and sequestration (CCS) process is secure.

Mr. Owen responded to the question about the definition of a USDW, stating that the purpose of the recommendation to expand the USDW definition is to recognize the possibility that future technologies will allow utilities to treat water with TDS over 10,000 ppm.

Mr. Heare responded that the definition of a USDW is stipulated in the UIC regulations and is not unique to CO_2 GS wells. As drafted, this recommendation would affect the entire UIC program.

Mr. Diemer added that the possibility of affecting potential USDWs seems to be greater for CO_2 GS wells than for other UIC wells. EPA could amend the USDW definition only for Class VI wells or could do a site by site determination based on proximity to a potential alternative water supply.

Mr. Heare commented that the language of the letter sometimes assumes that EPA will conduct all site classifications. But 33 states currently have primacy to do this. **Mr. Wheeler** suggested that the letter refer to "permitting authority" instead of "agency."

Ms. Nuzzo questioned how EPA could require people to "move cautiously" (the language used in the draft letter). However, she expressed concern that state UIC programs will not be able to properly evaluate permit applications. **Mr. Wheeler** agreed with Ms. Nuzzo and added that this is a concern at both the state and federal level. It is not clear that either entity has the resources available to adequately review permits for CO_2 GS injection.

Mr. Owen suggested that the proposed Rule establish a set of criteria that would require permitting authorities to have certain capabilities before receiving primacy for Class VI wells.

Ms. Thorp stated that the state UIC regulators are often not in contact with public water systems. Ms. Thorp asked if there aspects of the proposal that would allow the public water systems potentially affected by CO_2 GS injection to participate in the permit review process.

Mr. Heare responded that the current UIC regulations required public participation for permitting. Public water systems can be a part of this process. EPA has received comments that it should take actions to enhance public participation in areas where these permits are issued. Mr. Heare added that the broader question of who will run the Class VI program in the state is also relevant. Class II wells are often run by an oil and gas agency that is separate from the environmental agency that manages the rest of the UIC program. Which agency would be responsible for Class VI wells?

Ms. Codrington added that EPA hosted public hearings in Chicago and Denver to discuss the proposed Rule. The Sierra Club recommended that the public become involved immediately after the permitting authority receives the permit.

Dr. Head suggested that the Rule stipulate that it is the responsibility of the applicant to identify, contact, and engage appropriate stakeholders concurrent with the submission of their permit application.

Mr. Smith stated that the addition of imprecise language would not add value to EPA's process. The focus of the Council's recommendations should be to ensure that the UIC program continues to protect drinking water. From the perspective of drinking water protection, the recommendation to "move cautiously" does not have value. Mr. Smith also suggested that the Council pare down their recommendations to one page.

Mr. Grunenfelder commented that EPA will receive a number of comments in response to this Rule. If the Council supported specific aspects of the proposed Rule, that might be of greater use to the Agency.

Mr. Cooley suggested that the Council read the preamble to the proposed Rule thoroughly. Several of the Council's concerns are mentioned in the preamble.

Mr. Heare noted that EPA extended the comment period for the proposed Rule to December 24, 2008. **Ms. Dougherty** reminded the Council that members can submit individual comments independent of the Council's recommendations.

Mr. Saddler motioned that the Council submit a letter to the Administrator in response to the proposed CO_2 GS Rule. But that the workgroup clarify the language in the draft letter and distribute the letter to the Council for review before submission.

Mr. Kite seconded the motion.

Vote on motion – 14 Yea, 0 nay, 0 absent. Motion carries.

THE TCRDS FACA AGREEMENT IN PRINCIPLE

Pam Barr (DWPD), Lynn Thorp

Pam Barr described the key elements of the agreement in principle for the revisions to the Total Coliform Rule. EPA established the Total Coliform Rule/Distribution System Advisory Committee (TCRDSAC) in July 2007. The Committee was to provide Agency recommendations on how best to revise the TCR and on what information and research is needed to understand risks posed by distribution system problems. The Advisory Committee developed an Agreement in Principle that will be used as the foundation for the proposed Rule.

The Committee recommended an overall shift in focus from monitoring results informing public notification or monitoring results that inform investigation and corrective action ("find and fix"). The revised TCR presents a more proactive approach to public health protection and will reduce confusion associated with public notification actions for total coliform violations.

These recommendations will change the construct of the Rule. The TCR revisions will eliminate the Maximum Contaminant Level Goal (MCLG) and Maximum Contaminant Level (MCL) for total coliform. Instead, a total coliform exceedance will trigger assessment and corrective action of any defect found. A utility will receive a treatment technique violation if the assessment or corrective action is not completed. The revised TCR would retain the MCLG of 0 for *E. coli* and would also retain the current MCL associated with the presence of total coliform or *E. coli*. The revisions to the TCR also include new criteria for increased and reduced monitoring for those small systems serving less than 1,000 people.

Ms. Thorp participated in the TCRDSAC and noted that the committee was a model of collaboration. Each member had to reach outside of their comfort zone. For those who represented public health and environmental nongovernmental organizations, for example, it was difficult to consider the elimination of an MCL. The revisions proposed in the agreement in principle would amend the TCR to better fulfill the goals of the Rule, which are to protect public health and to ensure continued integrity of the distribution system.

Mr. Grunenfelder expressed appreciation for the efforts of the TCRDSAC. He stated that there is a real need to enhance public health protection from a multi-barrier approach. Mr. Grunenfelder expressed concern that the revisions would reduce monitoring because monitoring is one of the barriers to protect public health. The vast majority of acute and non-acute violations are from small systems. Mr. Grunenfelder acknowledged the financial burden that the existing Rule can place on small systems, but the cost of a coliform test is low compared to the costs of a bacterial contaminant event.

Ms. Dougherty commented the intent of the proposed revisions is to improve the sustainability of smaller systems by making them accountable for their actions. Mr. Dougherty added that the agreement in principle states that those who sign the agreement will support EPA's recommendations as long as they fall under the agreement. But this does not preclude others from commenting on the Rule when it is proposed. Mr. Dougherty stated that she would expect EPA to receive several comments similar to those made by Mr. Grunenfelder.

Mr. Grunenfelder added that he fully supports the "find and fix" approach, but that "find and fix" actions are triggered by routine monitoring.

Ms. Beardsley mentioned that the state regulators in Maine tried to increase the monitoring requirements for those systems that failed to monitor. This approach was not effective.

Ms. Barr responded that, under the revisions proposed by the TCRDSAC, if a system has a TC positive result and they do not perform the additional *E. coli* sampling, they will receive an acute violation. This will provide the system with an incentive to take the *E. coli* samples.

Mr. Saddler noted that the proposed revisions add accountability to the routine monitoring. If systems are required to determine the reason behind the total coliform hits, it will lead to improved system maintenance and public health protection.

PREPARING FOR TRANSITION

Mike Shapiro, Deputy AA for the Office of Water

Mike Shapiro stated that this transition to the new administration is one of the most important and challenging transitions in the history of the Agency. In addition to the changes in policy, the new administration will have to face economic challenges as well. But, Mr. Shapiro noted that, in his long tenure at the Agency, he has never seen as much planning and effort devoted to ensuring continuity as he has during this transition.

President-elect Obama created an Agency Review Team that is charged with gathering information about EPA so that the incoming political leadership can be immediately effective. The 14 members of the review team will seek information related to EPA's organizational structure, staffing, programs, and policy issues. Many members of the review team have served at EPA in political positions under previous administrations. The review team scheduled over 100 interviews with senior managers and will use the

information gathered at the meetings to prepare briefing materials for the incoming leadership. The review team is also trying to determine the issues that will need immediate attention. The Agency is also preparing to prioritize infrastructure projects in the event that Congress passes another economic stimulus package.

Ms. Nuzzo asked what actions the Agency is taking to ensure that smooth transitions in terms of security. **Mr. Shapiro** responded that federal agencies have been working to ensure continuity of operations during the transition. Both presidential teams started the security clearance process in advance to ensure that there are people in place at the beginning who will have the proper clearances. He also expects the DC area will be in a high state of alert during the inauguration period.

Mr. Grunenfelder mentioned that the Council's intention to write a letter to the Administrator in support of the Agency's sustainable infrastructure initiatives. Mr. Grunenfelder asked if it would be appropriate to include in the letter the need to direct funds from an economic stimulus package to drinking water infrastructure.

Mr. Shapiro responded that a letter of that nature would be timely and appropriate. The administration will be looking to make changes, but it is entirely appropriate to identify programs or aspects of the Agency that do not need to be fixed. This information would be useful to a transition team.

Dr. Head asked if Mr. Shapiro foresees any new directions for the drinking water program under the new administration.

Mr. Shapiro replied that a new administration would most likely examine the current process for identifying new contaminants and the rate at which the Agency moves from science to action. This challenge extended beyond the drinking water program to all programs in the Agency that must address issues related to contaminants.

Mr. Smith stated that the letter he drafted to the Administrator (on behalf of the Council) thanks him for the vision and leadership of the sustainable infrastructure initiative. Mr. Smith suggested that the Council submit a second letter to the transition team to express the Council's desire to see funds from the stimulus package directed towards infrastructure projects.

Mr. Grunenfelder expressed support for a letter to the current administration about the infrastructure component of the stimulus package. But, he added that the Council can only provide recommendations directly to the Administrator (not to the transition team).

Ms. Blette suggested that the Council prepare communications for the new Administrator and wait to send them until a new Administrator (or an acting Administrator) is appointed.

Mr. Smith motioned to prepare draft letters to submit to the Administrator concerning sustainable infrastructure and the economic stimulus package.

Dr. Head seconded the motion.

Vote on motion – 14 Yea, 0 nay, 0 absent. Motion carries.

ISSUES FOR DISCUSSION AT SPRING 2009 MEETING

Mr. Cooley suggested that the Council discuss interdependencies. The water sector is ahead of most in terms of agency intersection, but this issue will become more relevant in the future.

Mr. Smith stated that it would be appropriate to discuss nutrient control and source water protection.

Mr. Grunenfelder proposed the City of Seattle for the spring meeting location. The Seattle water utility has been very progressive in the field of sustainable infrastructure. Mr. Grunenfelder has a good relationship with a rural water affiliate who works with small systems on issues related to sustainable infrastructure.

Ms. Morales-Sanchez stated that, from a small system perspective, she would be interested in discussing the dual MCL, regionalization, and resource sharing.

Ms. Beardsley suggested that the group discuss affordability and small systems.

Mr. Kite noted that the Council should take the priorities of the new administration into consideration.

Dr. Head stated that the connection between public health and climate change is an important issue to consider.

Ms. Blette asked if any members of the Council would be interested in participating in the subgroup on full cost pricing for drinking water proposed by Mr. Shanaghan. The purpose of the subgroup is to provide recommendations to EPA, through the full NDWAC, identifying a range of options and approaches that water utilities, local officials, and state and federal policy makers could consider regarding how best to define and achieve full cost pricing of drinking water service.

Mr. Wheeler, **Ms. Morales-Sanchez**, **Mr. Cooley**, **Ms. Beardsley**, **Mr. Owen**, and **Mr. Smith** volunteered to participate in the full cost pricing subgroup.

Ms. Blette asked if any member of the Council would be interested in participating in the subgroup on the interaction between local officials and public water utilities proposed by Mr. Crossland. The purpose of the sub-committee is to identify the areas where utilities most need the support of local officials to move toward greater sustainability, to determine how these areas overlap with the practices that EPA is trying to promote, and to identify which practices are most likely to be advanced by EPA outreach to local officials.

Mr. Grunenfelder, **Mr. Stephani**, and **Mr. Kite** volunteered to participate in the subcommittee proposed by Mr. Crossland.

WRAP UP

Gregg Grunenfelder

Mr. Grunenfelder thanked the Council for their participation and discussion.

Meeting adjourned.

Appendix A

FINAL AGENDA
National Drinking Water Advisory Council Fall Meeting
Phoenix Park Hotel, 520 N. Capitol St. NW, Washington DC
November 2008

Wednesday, November 19, 2008

1:00-1:15 pm	Welcome	Gregg Grunenfelder, NDWAC Chair, Veronica Blette, DFO
1:15 – 1:45	Follow-up since the Last Meeting *Purpose: Discuss EPA activities underway to follow-up on recommendations made from previous meetings. Introduce NDWAC activities looking at geologic sequestration and EPA's regulatory determination for perchlorate.*	Elizabeth Corr, DWPD Veronica Blette, DFO
1:45-2:30	Update on Consumer Outreach Efforts *Purpose: Provide an overview of EPA's outreach efforts including web site revisions and Drinking Water Academy improvements.*	Charlene Shaw, Charles Job, DWPD
2:30-2:45	**BREAK**	
2:45-4:00	Water Security Activities - *Priorities for 2009* - *Water Laboratory Alliance* - *Mutual Aid*	David Travers, WSD Latisha Mapp John Whitler
4:00-5:00	Council Discussion on Potential Agency Comments *Purpose: Subgroups on geologic sequestration and perchlorate reg det will lead preliminary discussion on potential Council action to respond to EPA's proposals.*	Gregg Grunenfelder and Council members
5:00	**ADJOURN**	

Thursday, November 20, 2008 - Theme of the Day is Sustainable Infrastructure!

8:30-9 am	EPA's Sustainable Infrastructure Initiative	Ben Grumbles, AA for Water
9:00-10:00 am	Effective Water Utility Management/Energy Management *Purpose: Provide an overview of multi-stakeholder collaborative effort to identify and promote attributes of effective utilities. Highlight activities to help utilities manage energy more efficiently and improve asset management.*	Sheila Frace, Jim Horne, OWM
10:00 – 10:15 am	**BREAK**	
10:15 -11:00 am	Asset Management for Small Systems – A Demo of CUPSS *Purpose: Provide an overview of EPA's new tool for small systems and the work being done to market the product.*	Katie Porter, DWPD
11:00-12 pm	Other Federal Advisory Committee efforts on Sustainable Infrastructure *Purpose: Learn about activities carried out by the NACEPT and LGAC Federal Advisory Committees and consider opportunities for collaboration.*	Andy Crossland, OWM Fran Eargle, OCIR

12:00 -1:00	**LUNCH**	
1:00 - 2:00	Efficient Water Use through the WaterSense Program *Purpose: Learn more about EPA's product labeling program and consider how to interact with the drinking water community.*	Virginia Lee, OWM
2:00-3:00	Green Infrastructure *Purpose: Learn about EPA's Green Infrastructure strategy and efforts to maximize opportunities for aligning with source water protection efforts at the local and state levels.*	Jenny Molloy, OWM
3:00-3:15	**BREAK**	
3:15-4:15	**PUBLIC PARTICIPATION**	
4:15-4:45	Full-Cost Pricing *Purpose: How does setting rates fit into all of the activities we've discussed during the day. What is the role of rate-setting in the era of infrastructure replacement?*	Peter Shanaghan, DWPD
4:45-5:45	Council Discussion on Sustainable Infrastructure in the Future *Purpose: Learn about EPA's Green Infrastructure strategy and efforts to maximize opportunities for aligning with source water protection efforts at the local and state levels*	Gregg Grunenfelder, Chair
6:45 p.m.	**GROUP DINNER**	

Friday November 21, 2008

8:00 - 8:45 am	Update on Regulatory Matters *Purpose: Provide update on CCL3, Research, Six Year Review, and other regulatory-related activities. Determine if the Council wants to submit formal comments on the perchlorate reg det.*	Pam Barr, SRMD
8:45 – 9:30	Geologic Sequestration Rule and other UIC Activities *Purpose: Follow-up from NDWAC conference call discussing the rule to determine need for formal Council comments on the rule-making. As time allows, will also cover other UIC-related issues.*	Steve Heare, DWPD Ann Codrington, DWPD
9:30-9:45	**BREAK**	
9:45-10:30	The TCRDS FACA Agreement in Principle *Purpose: Provide an overview of the Agreement and talk about next steps towards revising the regulation*	Pam Barr, Lynn Thorp
10:30-11:30	Preparing for Transition *Purpose: Identify what issues will be important to communicate, from NDWAC's perspective*	Mike Shapiro, Deputy AA for Water Gregg Grunenfelder
11:30-12:00	Issues for Discussion at Spring 2009 Meeting and Wrap Up	Gregg Grunenfelder, Chair
12:00 noon	**ADJOURN**	