



# AQUA-DUCT

Newsletter of the New Jersey Section - American Water Resources Association  
Fall 2007

## Inside:

Page 2: Committee Updates  
Pages 2, 7 & 12: Water's Eve Photos  
Page 3: Supporting Members  
Page 4: National President's Message—  
Page 5: Instantaneous Stream Flow Data—  
Page 6: Water Resources in the Next Decade—Page 6  
Page 8: River-Friendly Farm—Page 8  
Page 9: MAC 2007 Report—Page 9  
Page 10: Member News, DE AWRA Annual Dinner, 2007  
Homack Awardee  
Page 11: NJ Natural Capital Project  
Page 12: Upcoming Events  
Page 13: Section Info

## NJ-AWRA Annual Meeting

December 6, 2007, 12:30 pm

Alchemist & Barrister, 28 Witherspoon St., Princeton

### Agenda:

Elections

Presentation of Homack Award

Guest Speaker: Mark Mauriello, Assistant Commissioner for Land Use Management, NJDEP

**Cost: \$30**

Send checks made out to NJ-AWRA to:  
Kathy Hale, NJWSA, 74 East Main Street, Somerville,  
NJ 08876

## NJ-AWRA Elections

It's that time of year again. The Nominating Committee (Tony McCracken, Greg Westfall and John Miller) worked hard to come up with a great slate of candidates for 2008! All ballots must be faxed to John Miller of the Tellers Committee before the NJ-AWRA Annual meeting on December 6th or you may also bring your ballot to this meeting. You will soon receive a ballot and bios of those nominated for the executive committee.

*(Continued on page 3)*

## President's Message

John A. Miller, P.E., CFM



### In the presence of distinguished leadership

Have you ever had the opportunity to see, possibly meet and if lucky enough, converse with a star? Was it when you were a kid and met a professional quarterback? Or were you a teenager and saw a musician at a concert? Did you come away from the experience with a feeling of admiration? Did you feel that you have been in the presence of greatness?

AWRA President Gerry Galloway gave the leadership of the NJ-AWRA a special experience when he visited New Jersey, from Maryland, as the keynote speaker for the third annual New Jersey Association for Floodplain Management conference last month. After his talk, Gerry sat down with a group of us in the lobby of the hotel to talk about the shared missions of AWRA and our state section.

One doesn't need to know Gerry's background to instantly pickup on his unique mixture of warmth, worldly experience and motivational management style. As a note, Kathy Hale and I had previously met Gerry at the AWRA Leadership Workshop prior to the AWRA national conference in Baltimore, MD, so I knew that time with Gerry is memorable. I had the honor of introducing him at the NJAFM conference, and I quipped that it is hard to know how to address him: General, Doctor, or Professor – I got a nod when I said that he prefers "Gerry." For more on Gerry's background, see [www.awra.org](http://www.awra.org), under "About Us" and "Board of Directors." You will see what I mean by the above "star" reference. Gerry has decisively succeeded in one of his missions as President of the AWRA: to bring national and state sections together. Through outreach and sharing communications between the sections, the AWRA has dramatically shown that it is committed to "re-unify" the organization. This unity is needed now more than ever with the pressing demands on water resources.

Gerry's message to us in our brief session was that all water resources professionals need to be more vocal to decision makers. While being sensitive not to violate our organiza-



# NJ-AWRA Updates

## **Stream Restoration Committee**

**Kathy Hale, Vice Chair**

Although the SRC hasn't met recently, members have been very busy. ? We assisted NJDEP-LUR with the technical manual for the recently adopted flood hazard area rules. Five members worked with NJDEP to develop the channel restoration section of the manual.

? We also continued our work with the Raritan Basin Watershed Alliance, developing stream inventory and assessment methods. The draft riparian health analysis was presented at the September RBWA meeting. We are working on the supporting documentation, and will present the data to the SRC early in 2008.

Stay tuned for our first 2008 meeting date. If you have any suggestions for meeting topics, field trips or presentations, please email Jennifer Brunton, SRC chair at [jbrunton@louisberger.com](mailto:jbrunton@louisberger.com).

## **Groundwater Committee**

**Jeff Hoffman, Chair**

The ground-water subcommittee of the New Jersey AWRA has met a number of times throughout 2007 to discuss transient ground-water mounding under stormwater recharge BMPs. The DEP has requested a set of guidelines for 'simple' cases that could assist engineers and reviewers of these BMPs. The workgroup has set up 5 simple cases so far with explanation of how the conditions that apply to each.

The next meeting will be on Tuesday, November 27, 2007, at 1:30 at the USGS office in West Trenton.

## **NJ-AWRA Stormwater Committee**

**Ray Zabihach, Chair**

On July 10, 2007, a group of water resources professionals met to explore the merits of creating a focus group to discuss stormwater related issues. The ten participants concurred that the NJ-AWRA board should be approached regarding sponsoring a new Stormwater Management Committee. The NJ-AWRA board officially voted to form the NJ-AWRA Stormwater Management Committee at their July meeting with the understanding that the Committee would coordinate its activities with the NJ Association for Floodplain Management. Ray Zabihach was selected as the first Committee Chair. The first official meeting with strong NJAFM member participation was held in September.

The next meeting is scheduled for November 27, 2007, 10 am at USGS in West Trenton. Meetings will likely be held every other month. The guest speaker will be Jeff Hoffman, NJGS, who will give an overview of the NJ Stormwater BMP Mounding Technical Guidelines Workgroup. The initial purpose of the Committee will be to consider the many aspects of stormwater management and develop priority issues. The meetings are open to all participants with an interest in stormwater management.

For more information, please contact Ray Zabihach at [rzabihach@co.morris.nj.us](mailto:rzabihach@co.morris.nj.us).

## **Third Annual Water's Eve a Success!**

On September 28, NJ-AWRA celebrated a successful year with our Water New Year's Eve celebration at the Union Hotel in Flemington. We were joined by Assistant Commission for Natural and Historic Resources John "Jay" Watson (photo to right) with an update on NJDEP initiatives, and State Climatologist Dave Robinson (photo to left, see article in Aqua-duct Summer update). There are more photos from the event throughout this issue of Aqua-duct. Thanks to the 51 members who attended!



*NJ-AWRA Elections*  
(Continued from page 1)

From the NJ-AWRA Bylaws: The NJ-AWRA Election of Officers shall take place at the Annual meeting and shall be conducted by the Secretary and the Tellers Committee. Notification shall be provided to all Individual Members at least 21 days in advance of the Election of the Date, Time, and Place of the NJ-AWRA Election. Officers shall be nominated by a Nominating Committee. Any nominations submitted by the Nominations Committee shall be sent to the Section membership at least 21 days prior to the Election. In addition, nominations may be submitted in writing or in person by any NJ-AWRA Individual Member and delivered to the NJ-AWRA Secretary prior to the close of Nominations at the Annual Meeting. Balloting shall be in person at the Annual meeting or by other methods at the discretion of the Executive Board. A candidate must receive a plurality of the votes cast.

**Slate for 2007**

**Executive Committee Elections:**

President: Kathy Hale  
Vice-President: Mary Paist-Goldman  
Secretary: Gina Berg  
Treasurer: John Finkeldie  
Membership Coordinator: Jeremiah Bergstrom

*President's Message*  
(Continued from page 1)

tion's non-profit status and our personal and workplace limits, Gerry suggested that we need to make more "noise." Policy makers don't have our expertise, our focus and our vigor on water issues. Maybe more important, the official's staff may be lacking the knowledge and sources of good information for his/her boss to make informed decisions. The AWRA can fill a vital need outside of our membership.

Gerry has recently appeared on Good Morning America, C-SPAN, National Public Radio, and has testified before the Senate on a variety of water resource topics (including drought and flooding). As I witness this point in his career, I see his super active work in widening the message well beyond the water resource professionals - to the decision makers and especially the public. Let us individually and collectively through the AWRA and right here through our New Jersey Section, work with Gerry in broadcasting our wisdom. Our message needs to be heard.

As a closing note, it was my honor to represent you as the president in 2007. I want to thank everyone for your continued support of the organization and I wish the best to the new board in continuing the successes of the NJ-AWRA. I'm not going anywhere - I will be happy to assist the board in their important work. Please work with all of us in furthering education, awareness and publicizing the importance of our water resources. Let's follow Gerry's leadership and his calling.

**Thank you to our supporting members:  
SmartVent, Amy S. Greene Environmental Consultants and Princeton Hydro, LLC**





**National President's Message**  
**Gerry Galloway**  
**September/October 2007**

We were all shocked last month by the tragic failure of the I-35 highway bridge over the Mississippi near Minneapolis, Minnesota. We could not believe that a major structure would collapse in front of us and take with it so many lives. We should not have been surprised because, for several years, professionals have been pointing out deficiencies in the manner in which we maintain and upgrade our nation's infrastructure. Our colleagues at the American Society of Civil Engineers biennially report the status of this infrastructure and over the past several periods have given most sectors a grade of D or below. During

the AWRA Water Policy Dialogue in January, the subject of inattention to water infrastructure was frequently a topic for discussion. Our spring meeting in Vail on emerging contaminants highlighted the necessity for constant improvement in our waste and water treatment facilities-improvements that are not taking place.

Several days after the Minnesota tragedy, during a televised debate among Democrat candidates for President, the topic of infrastructure was front and center and all candidates pledged, upon their election, to take immediate action to deal with the situation. Op Ed pieces and editorials have echoed the same sentiments. Perhaps now, in the face of the bridge collapse and the memory of Katrina, action will be taken. Unfortunately, history would indicate that the first thing to be pushed aside when new more glamorous priority issues arise is infrastructure renewal.

We, as members of the American Water Resources Association, in many ways represent the conscience of the water community. Along with other water organizations, it is terribly important that we educate the public about the need to take care of basics such as infrastructure and to plan for future infrastructure needs. In the case of both Katrina and the bridge, the public assumed that the professionals responsible for the structures were monitoring their conditions and where problems occurred they were taking action. As we now know, there were insufficient funds to support proper inspection and monitoring of the structures. Both tragedies might well have been averted.

As part of community, conversation, and connections we all need to be discovering where we can make our voices heard in ensuring that there will be attention to our nation's water infrastructure in the future. During our meetings at the national and state level, infrastructure should be a topic. In conversations and connections with decision-makers in our communities, we should carry the message to them of the need for this attention to infrastructure.

I know you see the challenge. We, the members of AWRA, can make a difference if we all work together to educate both the public and our elected officials about the importance of maintaining the water component of our built environment.

Thank you again for what you are doing for our country and your community. I look forward to seeing you at the Annual Meeting in Albuquerque.

**Sincerely,**

**November 2007**

It is hard for me to believe that in a little over a month, my year as president of the AWRA will be finished. The opportunity to work with so many fine people across this great nation was a distinct privilege and honor. AWRA members are engaged in all aspects of managing, preserving, and enhancing our water resources. Our members lead critical organizations, conducting vital research, educating the next generation, restoring our sensitive habitat, and designing and building the water infrastructure for tomorrow. I compliment you all for your contributions to our true national security.

Our meeting in Albuquerque brings together professionals from within our membership and from other segments of the water resource community. Abstract submissions were an all-time high for AWRA and the number and diversity of papers submitted has been exceptional. I am quite sure that those in attendance will be broadening their water resources perspective, meeting others with interests in their particular field, and most importantly, building strong friendships that will last far beyond November 2007. The year ahead, 2008, provides an opportunity for AWRA and its members to influence the development of national policy. We've recently seen the establishment of a Congressional Water Caucus, one of the first indications of interest in water on the Hill in a long time. We have heard candidates for president talking about the challenges the nation faces with respect to infrastructure, a topic that has been neglected in the past. Across the country, American citizens will be deciding for whom they will vote in local and national elections. It is important that their decisions be based on full consideration of the issues that need attention, and it is our job, as AWRA members, to ensure that that issues discussion includes water. Ensuring that this does happen, does not require any of us to become partisan in the presentation of information about key water resource issues. Our role should be to

*(Continued on page 5)*

*National President's Message*

*(Continued from page 4)*

ensure that the facts are on the table and that candidates at all levels are questioned about how they would deal with the water challenges we face. After they've been asked once, most candidates will take time to learn more, and seeing the realities of the issues you are discussing, may well move to try to do something about them.

I had the good fortune to be able to visit several state sections and to meet with leaders of others. I have learned of the growing interest among water professionals in educating their peers, neighbors, and elected officials about water problems in their communities and regions and of their desire to develop and share with them the most recent information available within our water resources community. The national organization, our state sections and our student chapters collectively can make that happen.

Thank you again for the opportunity to serve. I know that President-Elect Jane Rowan will do an outstanding job as my successor and that her background and interests will ensure that AWRA will continue to be a focal point in the lives of our water community. I wish her well as we move into what will certainly be an interesting year for all of us.

**Sincerely,**



**AWRA National President Galloway on National TV**

President Gerry Galloway was on several national TV shows during October discussing water resources: *Good Morning America*, October 29—<http://abcnews.go.com/CSPAN>, October 29—[http://www.c-span.org/NPR's Diane Rehm show](http://www.c-span.org/NPR's%20Diane%20Rehm%20show), October 22 "U.S. Weather Patterns and Drought" — <http://wamu.org/programs/dr>

**Tribute to President Galloway and AWRA**

Ken Lanfear, USGS put together this tribute to President Galloway's leadership of AWRA in 2007. He included many photos from AWRA's major events of the year. It takes a few minutes to download, but is worth the wait. Enjoy! <http://www.his.com/lanfear/AWRA2007.exe>

**Access Historical Instantaneous Streamflow Data with the New USGS Online Database**

**Visit the Instantaneous Data Archive (IDA) website at <http://ida.water.usgs.gov/ida/>**

Access to U.S. Geological Survey (USGS) historical instantaneous streamflow discharge data, dating back to around 1990, is now easily available online through the Instantaneous Data Archive (IDA). In this new system users will find streamflow information reported at the time intervals at which it is collected, typically 15 minute to hourly intervals.

The USGS has provided historical daily streamflow data on the Internet for more than a decade, but for many scientific and engineering purposes it is very useful to have the historical data in shorter time increments. The instantaneous data has been available for many years, but was not accessible through the web. This new database saves time and effort by giving users the information through a user-friendly automated process.

"A user-friendly archive of historical instantaneous streamflow data are important to many different users for such things as floodplain mapping, flood modeling, and estimating pollutant transport..." said Robert Hirsch, USGS Associate Director of Water. "The new IDA site should be very helpful to research scientists and engineers for a wide range of hydrologic analyses. We are delighted that we have the ability to provide this treasure trove of high-quality data for these uses."

The IDA web site currently has about 1.5 billion instantaneous data values from 5,500 streamgages in 26 states. Populating this web site takes effort and resources that are being provided "as available," and not all states and streamgages are available at this time. The number of states and streamgages with data will continue to increase. It is possible that the IDA database will expand to include other variables such as temperature and pH in the future.

For more than 125 years, the USGS has monitored flow in streams and rivers across the U.S. The USGS collects data from more than 7,400 streamgages, many of which provide real-time data in 15 minute increments (explore this information at <http://water.usgs.gov/waterwatch/>). USGS streamflow data is routinely used for water supply and management, monitoring floods and droughts, bridge and road design, water availability and quality planning, and for many recreational activities.

Access an even larger variety of USGS data, such as for ground water and water quality, through the National Water Information System Web Interface (NWISWeb), which contains over 1.5 million sites, and averages over 25 million successful visits per month (log onto at <http://waterdata.usgs.gov/nwis/>).

## **Water Resources in the Next Decade**

Earl Spangenberg – Editor-in-Chief, Impact (AWRA Magazine)

How is your crystal ball?

I don't think that any of us would be willing to say with confidence that we can foresee exactly the nature or magnitude of the concerns we will face within the next two or three years, let alone the next ten years. IMPACT's Associate Editors know no better than anyone else what the future may hold, but knowing that we have access to some of the more forward-looking minds in the water resources profession, the editors have begun a project designed to develop an idea of what the future might bring.

We are initiating a three year project to develop a broad-based AWRA-member-driven picture of concerns to be expected within the next decade. Here is the time-line for the project:

2007: This year, the Associate Editors have compiled a list of the "Top 10" water resource concerns we think might be expected in the next decade. The list, published below, is designed as a starting point.

2008: For each issue in 2008, we will ask two authorities in the water resources field to write a brief comment on one or two expected concerns, and why they are significant. We will be tapping AWRA members, but we will also reach beyond AWRA for some "outside" input. The comments may either be on candidates from the Associate Editors' list or they may be on concerns the comment writers choose themselves. The compiled comments will be published in November, 2008 issue. We will have an IMPACT roundtable involving several Associate Editors and some of the commentators for the years' issue at the 2008 Annual Conference.

2009: Starting with January 2009, and continuing through September 2009, we will solicit responses from AWRA members about water resources concerns in the next decade. We will use an e-mail questionnaire, and we will solicit e-mail and land mail responses. We will publish the results in the November 2009 issue. The 2009 Annual Conference will feature an IMPACT roundtable featuring some of the commentators from 2008, IMPACT Associate Editors, and AWRA Board Members. Panelists at the roundtable will reflect on the results of the three year project, and on the implications of the information for resource policy and planning at the local, state and national level.

### **Ten Water Resource Concerns for the Next Decade**

#### 1. Water Resources Sustainability

We need to learn more of the requirements for sustainable water development, and work to develop a national consciousness of sustainability

#### 2. Water resources education and information

We need to evaluate and encourage expansion of advances in water resources education in elementary school and secondary school, and at the college and university level.

Further, we need to develop water resources education and public awareness programs beyond and outside of the schools to better communicate technological concepts about water to the public

#### 3. Water resources and climate

We need to determine how climate change/global warming will affect sustainable water supplies, and how in water storage and conveyance systems will be affected. In addition, we need to evaluate the potential concomitant impacts on water planning and management programs, and on shoreline planning.

#### 4. Global water problems

We need to address the problems associated with availability of drinking water and adequate sanitation in the developing world, locally with emphasis on the security of fresh water storage and distribution systems, regionally, with investigation of new policy frameworks over multi-jurisdictional areas

#### 5. Infrastructure concerns

We need to address the problems of aging infrastructure at all levels with particular reference to concerns for infrastructure financing as affected by such factors as resistance to rational pricing to support development

#### 6. Watershed management problems

As state and local government move towards adoption of watershed management and protection programs, we will need to evaluate such things as the nature of broad-scale management planning in fragmented ownerships, and the implications for private property rights.

#### 7. Institutional effects on water availability

We need to look further into the concept of privatization of water resources to see if it is a viable solution to enhancing availability; and we need to investigate the potential impact of states moving to prior appropriation concepts in water law.

We need to determine the relative value/impact of making local proven water supplies the controlling factor in development versus

*(Continued on page 7)*

## Water Resources in the Next Decade

(Continued from page 6)

moving water from where it is located to where demand exists.

### 8. Concerns in water resources management decisions

We need to evaluate the possibilities of incorporating new technologies and concepts such as risk analysis into water resources decision making, and we need to continue to develop tools for measuring the accuracy of water resources forecasting.

We need to evaluate and account for the impact of special interest group influences in Congressional deliberations

### 9. Water and energy .

### 10. Concerns about water quality.

## Water New Year's Eve 2007



## River-Friendly Farm Expanding

Abigail Jones, North Jersey Resource Conservation & Development Council

The North Jersey Resource Conservation & Development Council (RC&D) is shining the spotlight on farmers who are doing an excellent job of protecting New Jersey's water resources. By sponsoring the voluntary River-Friendly Farm Certification Program, North Jersey RC&D is working with farmers in target watersheds to improve water quality and getting the word out to the general public that farmers are good stewards of the land.



The River-Friendly Farm program has expanded to begin recognizing producers throughout the Raritan Basin within Hunterdon County as well targeted sub-watersheds of Neshanic, Spruce Run, Mulhockaway, and South Branch which also include parts of Morris and Somerset counties. North Jersey RC&D has been contacting agricultural landowners in the targeted watersheds. To date, 17 landowners have applied for the program; 7 in the Neshanic, 8 in the South Branch, and 2 in the Spruce Run Watershed. Of those, 3 have been certified River-Friendly.

Recently, New Jersey's third River-Friendly Farm Certification was awarded to Julie Gerow and Anthony Cordasco proprietors of Foxcross Farm, a 20-acre sheep farm in Delaware Township. Their Romney sheep are bred for show, pets and their luxurious wool. In addition to their fiber shop where they give spinning lessons, Cordasco and Gerow also sell organic heirloom tomatoes and garlic from their farm.

River-Friendly Farm designation is given to those who manage their farms to protect and enhance the water resources that provide drinking water to millions of people. River-Friendly farms, including Foxcross Farm, do all of the following: reduce soil erosion so sediment does not enter waterways; reduce fertilizer to minimum amounts needed to prevent leaching into water; provide essential vegetative habitat along water bodies to help protect aquatic organisms; and apply pesticides and other control methods only as appropriate. Free technical assistance is provided through the River-Friendly Farm certification process for producers to implement best management practices that protect water quality and enhance efficiencies on-farm. When farms are running at peak efficiency, they become more sustainable as a business and enhance the vitality of the community and economy.

Farms that complete certification receive a River-Friendly sign to display on the property, as well as an award plaque presented at a public venue, a poster, and press coverage.

North Jersey RC&D is seeking more applicants and is available to speak with any interested group or individual about the program. Please contact Abigail Jones at 908-735-0733 x102 or [ajones@northjerseycrd.org](mailto:ajones@northjerseycrd.org). Applications and further information can be found on the River-Friendly website at [njriverfriendlyfarm.org](http://njriverfriendlyfarm.org).

The North Jersey RC&D serves and is sponsored by the Freeholders and Soil Conservation Districts of Hunterdon, Morris, Somerset, Sussex, Warren and Union Counties. Through partnerships with municipal, state and federal agencies, as well as many private entities, the Council develops and manages programs and projects that promote the improvement and wise use of the region's human and natural resources.



### **DON'T FORGET TO SIGN UP FOR THE NJ-AWRA ANNUAL MEETING!!**

DECEMBER 6, 2007, 12:30 PM

ALCHEMIST & BARRISTER, PRINCETON, NJ  
GUEST SPEAKER: MARK MAURIELLO, NJDEP  
TO REGISTER, SEND A CHECK FOR \$30 TO:

KATHY HALE, C/O NJWSA, 74 EAST MAIN STREET, SOMERVILLE, NJ

**AWRA Mid-Atlantic Conference (MAC) 2007**  
**Tali Engoltz, NJ-AWRA Membership Coordinator**

On September 19-21, 2007 the Delaware Section of AWRA, a section celebrating only its third year in existence, hosted a highly successful Mid-Atlantic Conference at the Clayton Conference Center at the University of Delaware in Newark. The conference was titled "Green Opportunities for a Blue Resource: An Economic Perspective." Continuing the tradition started by the NJ section at the 2006 MAC of a longer format, the conference kicked off at 2:30 on Wednesday afternoon with a panel of experts representing a diverse selection of perspectives including the City of Philadelphia, Conectiv Energy, the U.S. Army Corps of Engineers, the Nature Conservancy, and the academic perspective from Villanova University. Panelists addressed topics ranging from water management, scarcity, quality, and permitting to public relations and awareness and the costs associated with each of these elements of water resources. While Brian Richter of TNC urged integrating ecosystem values into water resource management and development, Dr. Robert Traver of Villanova reminded attendees that management cannot be ecologically sustainable without being economically sustainable.

Session 1 was followed by a delicious dinner and a keynote address by Dr. David Tilley, Assistant Professor, Natural Resources Management Program, Department of Environmental Science and Technology, University of Maryland. Dr. Tilley introduced attendees to the discipline of Ecological Engineering which combines natural and applied sciences with engineering to design, construct, analyze, and manage ecosystems and to develop eco-technologies to advance solutions to environmental problems while minimizing the use of unsustainable non-renewable energy. He reminded attendees of the relationship between water and energy and the need to manage, conserve, and protect both.

On Thursday morning Ms. Laura Whalen, DE AWRA President, officially welcomed all to the conference. Kenneth Reid, Executive Vice President, AWRA, and Jane Rowan, President Elect, AWRA, inspired all attendees with praise and encouragement to continue living and working as leaders in our field and to find the perfect balance between passion and knowledge as we engage with other professionals in the field and with the public. Both Reid and Rowan talked about the courage, persistence, and commitment required to be a leader but reminded us of the reward: playing a critical role in protecting our world's water, a resource of limitless value but limited availability.

Following Thursday's opening session were concurrent sessions covering topics such as tracking the economic impacts of local and regional projects, watershed planning, restoration and retrofits, drinking water protection and management, and urban water resource case studies. One of the highlights of the day was the lunchtime speaker, Mr. Peter Mitchell, Chairman and Chief Creative Officer of Marketing for Change. Mitchell's presentation took a slight detour away from water and instead demonstrated how to use creative, unique, and sometimes controversial marketing to target your message to your audience. How do you convince a bunch of guys to drink 'diet beer?' Call it 'Lite' and pay famous athletes to endorse it. Do you want people to stop fertilizing their lawns in the spring in the Chesapeake Bay watershed? Do not delve into the scientific studies about eutrophication. Tell people that fertilizing in the spring kills blue crabs in the Bay, hence reducing how many die at crab boils covered with Old Bay seasoning and dipped in melted butter. Tell everyone to "Save the Crabs- and then Eat 'em!" Using these and many other examples, Peter reminded us that if we want people to make lifestyle changes that will protect and conserve water resources, we need to make the message and the activity "fun, easy, and popular" (either that or make people feel like social outcasts, because, "hey, everyone else is doing it!").

The DE section conference planners knew what they were doing when they planned dinner at the Chesapeake Inn. A lovely setting with sparkling water, gently rocking boats at slips in the marina, warm evening temperatures, and a sunset played host to the annual MAC celebratory dinner. But leave it to the NJ Section attendees to interrupt the serene setting by putting to good use the water-shooting plastic aquatic animal party favors. The light-hearted fun seeking group sprayed neighboring tables with water, triggering an all out battle. Fun was had by all and no one was hurt.

Friday morning's agenda included field trips to view local examples of water resource best management practices including restoration of the American shad in the Brandywine and enhanced urban farmland management.

Results from the post conference survey indicated that of those who responded, almost all felt the conference was a good use of their time and that the overall length was just right. Suggestions for future conference topics included addressing international water resource issues, water resources and climate change impacts for NY, PA, DE, NJ, and MD, water and energy connections, how to affect change in public opinion, public behavior, public education, and more case studies and lessons learned in water resource management.

The NJ Section wishes to offer the DE Section a hearty CONGRATULATIONS on a job superbly well done.

## Member News!

The Delaware Section of AWRA held a very successful Mid-Atlantic Conference in September. Several members of NJ-AWRA travelled to DE for the conference and the Mid-Atlantic Sections meeting. In addition, several NJ members presented at the conference:

Jeremiah Bergstrom, TRC

Shandor Szalay, AKRF

Jim Eisenhardt, Duffield Associates

In October, NJAFM held its 3rd annual conference, which was a tremendous success. Gerry Galloway, current national AWRA president, was one of the keynote speakers. John Miller, Kathy Hale, Kirk Barrett, Jim Eisenhardt and Gina Berg were fortunate to spend some time talking to Gerry about the role of AWRA and the state sections. NJ-AWRA members who presented at the conference or were involved in the planning included:

John Miller, Princeton Hydro

Laura Tessieri, DRBC

Jim Eisenhardt, Duffield Associates

Mike Graham, SmartVent

Congratulations to Laura Tessieri, who was elected Chair of NJAFM for 2008!

NJ-AWRA bid farewell to Michele Bakacs this fall. Michele and her husband re-located to Florida, where he is attending medical school. The Florida section's gain is our loss. We will miss Michele's participation in the SRC, and wish her well in her new ventures.

We were saddened to hear of the death of General William Whipple, one of the original members of NJ-AWRA and an important water resources figure in New Jersey. Joe Skupien gave a memorable tribute to General Whipple at Water New Year's Eve.

### DE-AWRA Annual Dinner

We would like to invite you to our DE-AWRA annual dinner that will be held on Tuesday, December 11th at 6:00pm. This year, we are having the dinner at the Delaware Nature Society's Ashland Nature Center, and we have a great meal and schedule of events planned for the evening. We are fortunate to have Dr. Gerry Galloway as our keynote speaker, which will be followed by other short talks and fun give-aways, etc. Dr. Gerry Galloway is the current national AWRA President and spoke recently before the U.S Congress and on the national news about the critical water concerns facing the U.S. Part of his talk will be about national water resources policy, while touching on East Coast Water Policy and the role of DE and eastern states in the national policy creation. We hope you can join us for this event!

Please check out our website, [www.deawra.org](http://www.deawra.org), for more details about the dinner (as well as the attached flyer) and other events going on with the DE AWRA chapter.

Thank you,  
DE Section of the AWRA

### 2007 Homack Awardee Announced!

The 2007 recipient of the Peter Homack Award is Theodore Chase. Dr. Chase is being recognized for his outstanding involvement and public service as a volunteer with local public and regional non-profit organizations preserving and protecting water resources in a variety of activities outside of his laudable academic career. Dr. Chase retired from Cook College, Rutgers University after nearly forty years of teaching biochemistry and microbiology at the end of the 2006-2007 school year.

Throughout his academic career, he shared his teaching talents with his community. Beginning in 1972, he served as a member and/or chair of several Franklin Township (Somerset County) municipal boards, including the Environmental Commission, Zoning Board of Adjustment, Planning Board and Open Space Committee. Dr. Chase also participated in the Raritan Basin Watershed Management Project and is a current member of the Raritan Basin Watershed Alliance. He has also contributed his time as a volunteer doing stream monitoring for Franklin Township as well as the Stony Brook-Millstone Watershed Association. Dr. Chase exemplifies the power of individual action and set an example for stewardship and care of both land and water resources in his neighborhood. He continues to be very active and now extends his knowledge beyond the classroom.

The award will be presented to Dr. Chase at the NJ-AWRA Annual meeting on December 6, 2007. See [www.njawra.org](http://www.njawra.org) for more information on the Homack award and previous awardees.

## New Jersey Natural Capital Project Greg Westfall

The NJ-AWRA September 14, 2007 meeting was honored to have a presentation by William J. Mates, Research Scientist, NJDEP, regarding the New Jersey Natural Capital Project. The purpose of the study was to estimate the economic value of goods and services provided by New Jersey's natural environment. This is the first comprehensive state-wide study in the United States. The work was begun in July 2004 and the Report was released in July 2007.

The nature of the assets is that natural landscapes consist of ecosystems which are a dynamic complex of organisms plus the non-living environment interacting as a functional unit. Ecosystems provide economic value through the goods and services that they provide. Examples of goods provided include water, food, fish, timber and services include "beneficial ecosystem functions." The abiotic environment provides goods (minerals) and services (pollution dispersal) as well.

The acreage of each ecosystem and its percent of the total area of New Jersey is shown in Table 1. The value of ecosystem

Ecosystem	1995 Acreage	Percent of Total
Urban (incl. greenspace)	1,483,496	26.8
Forest (excl. wetlands)	1,465,668	26.4
Freshwater wetlands	814,479	14.7
Marine	755,535	13.6
Farmland	673,464	12.1
Saltwater Wetland	190,520	3.4
Freshwater/Stream buffer	101,378	1.8
Barren land	51,796	0.9
Beach and dune	7,837	0.1
TOTAL	5,544,173	100.0

Ecosystem	2004 \$/Acre/Year	MM2004 Per Year
Freshwater Wetlands	\$11,568	\$9,422
Marine	\$7,544	\$5,700
Forest (excl. wetlands)	\$1,476	\$2,163
Saltwater wetland	\$6,131	\$1,168
Farmland	\$717	\$483
Urban (incl. greenspace)	\$283	\$419
Beach and Dune	\$42,149	\$330
Freshwater/stream buffer	\$1,156	\$117
Barren Land	0	0
Annual Total		\$19,800

services provided is shown in Table 2.

Class of Goods	MM2004 \$/Yr.	Percent of Total
Farm products	\$3,676	62.7
Commercial fish	750	12.8
Minerals	587	10.0
Raw Water	381	6.5
Recreational fish	207	6.9
Sawtimber	147	4.9
Fuelwood	95	3.2
Game/fur animals	21	0.7
Annual Total	\$5,864	100.0

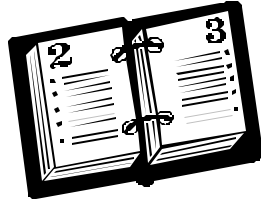
The value of goods provided by the natural environment is shown in Table 3.

The conclusions in brief are as follows:

- New Jersey's ecosystems are economic assets
- Those assets are highly valuable, amounting to least \$26 billion per year of goods and services provided

Results have several possible uses including the use of mapping to facilitate the local use of the results. See <http://www.nj.gov/dep/dsr/naturalcap/> for the full report and more information. Thanks to William Mates for taking the time to join us at the meeting.

# Upcoming Events



November 27-29, 2007: Stream Investigation, Stabilization & Design Workshop. See [www.northjerseyrcd.org](http://www.northjerseyrcd.org) or [www.raritanbasin.org](http://www.raritanbasin.org).

**November 27, 2007:** NJ-AWRA Stormwater Committee meeting, USGS, West Trenton.

**November 27, 2007:** NJ-AWRA Groundwater Committee meeting, USGS, West Trenton

**December 6, 2007:** NJ-AWRA Annual Meeting, Alchemist & Barrister, Princeton, NJ.

January 26, 2008: Northeast Organic Farming Association-NJ 18th Annual Winter Conference "Greener Fields, Greener Pastures: Growing for Good Health". Hickman Hall, Rutgers University.

March 17-19, 2008: AWRA Spring Specialty Conference, GIS & Water Resources V. San Mateo, CA. [www.awra.org](http://www.awra.org).

June 30-July 2, 2008: AWRA Summer Specialty Conference "Riparian Ecosystems and Buffers: Working at the Water's Edge". Virginia Beach, VA. [www.awra.org](http://www.awra.org).

November 17-20, 2008: AWRA Annual Meeting. New Orleans, LA.

Spring, 2009: AWRA Spring Specialty Conference "Managing Water Resources and Development in a Changing Climate". [www.awra.org](http://www.awra.org)



W  
A  
T  
E  
R  
S  
E  
D  
G  
E



**NJ-AWRA SECTION INFORMATION**

**2007 Section Meetings**

Meetings are held monthly. All members are welcome to attend. See website for locations.

December 6, 2007—Annual Meeting Stay tuned for the 2008 meeting schedule.

<b>2007 Leadership and Affiliation</b>			
Name	Title	Employment Affiliation	Phone E-mail Address
John Miller	President	Princeton Hydro, LLC	908-237-5660 x 116 jmill@princetonhydro.com
Kathy Hale	Vice-President	New Jersey Water Supply Authority	908-685-0315 X28 khale@rارانbasin.org
Mary Paist-Goldman	Secretary	Princeton Hydro, LLC	908-237-5660 mpaist@princetonhydro.com
John Finkeldie	Treasurer	Louis Berger Group	(973) 765-1850 jfinkeldie@louisberger.com
Tali Engoltz	Membership Coordinator	NJ Department of Environmental Protection	(609) 984-1365 Tali.Engoltz@dep.state.nj.us
Paul Scally	Immediate Past President		
Nick Agnoli	Northern Regional Representative	NJ Meadowlands Commission	(201) 460-1096 Nicholas.agnoli@njmeadowlands.gov
Juni Alam	Central Representative	Princeton Hydro, LLC	908-237-5660 Jalam@princetonhydro.com
Tom Stanuikynas	Southern Regional Representative	Pinelands Commission	609-894-7300 mullica@njpinelands.state.nj.us
Jeffrey Hoffman	Ground Water Committee Chair	New Jersey Geological Survey	(609) 984-6587 Jeffrey.L.Hoffman@dep.state.nj.us
Jennifer Brunton	Stream Restoration Committee Chair	The Louis Berger Group	(973) 765-185- jbrunton@louisberger.com
Ray Zabihach	Stormwater Committee Chair	Morris County Planning Department	973-829-8120 rzabihach@co.morris.nj.us

**Newsletter Submissions**

Did you attend an interesting water resources event? Do you know of an upcoming event? Did you see an interesting article you'd like to discuss? Did you work on an innovative project? Then we want to hear about it! ALL members of the NJ-AWRA are encouraged to submit articles and news for future issues of The Aqua-duct. The deadline for submission of information/articles to the editor for the Winter 2008 edition of The Aqua-duct is February 1. Please send articles to gregory.westfall@nj.usda.gov.

**New Jersey Section of the American Water Resources Association Mission Statement**

*The Section has a mission to provide a common forum in which to meet, discuss, exchange ideas, and assist all persons concerned with the conservation, development, management, and utilization of fresh and marine waters and related resources together with their environmental aspects. Its mission is also to cooperate with Federal, State and local agencies, educational institutions, foundations, private*