

NEHA 2014 AEC WRAP-UP



IN PARTNERSHIP WITH THE
IFEH 13TH WORLD CONGRESS

It was great that so many members (and potential members!) were able to join us in Las Vegas for the NEHA 2014 Annual Educational Conference (AEC) & Exhibition, July 7–10. It was truly inspiring to meet environmental health professionals from around the world with the International Federation for Environmental Health (IFEH) joining us for their 13th World Congress. Over 1,100 attendees were present representing 22 different countries such as Australia, Canada, Croatia, China, Kenya, Portugal, and Saudi Arabia.

We're confident that all were pleased with the high quality educational sessions at the conference, as well as a taste of the entertainment capital of the world that attendees were able to experience while staying in Las Vegas.

This year's combined NEHA and IFEH event offered sessions designed to help environmental health professionals adapt to and excel in the ever-changing economic, professional, and global landscape by learning the best tips, tricks, and tweaks needed to thrive in their positions. Approximately 15% of sessions in each educational track had an internationally focused topic or presenter. A block of sessions was also dedicated to IFEH presenters who covered environmental health issues from an international perspective.

In addition, 20%–30% of sessions highlighted innovative approaches to barriers and day-to-day issues faced by environmental health professionals. We hope attendees benefited from the conference by enabling them to do the following:

- develop their environmental health workforce and apply its proficiency to new areas,
- manage very real funding shortages and leverage resources in new ways,
- apply technology in new ways or use new technology,

Viva Las Vegas!



- build novel partnerships and collaborative projects, and
- find innovative solutions by exploring international approaches to shared concerns from the local to the global level.

Attending the AEC allowed environmental health professionals opportunities to enjoy a multifaceted experience that gave them training, education, networking, advancement, motivation, inspiration, policy involvement, and enjoyment of the destination. NEHA strives to provide the most updated and relevant information so that the AEC continues to be the premier event in environmental health education and training.

As one attendee stated, "I thoroughly enjoyed the NEHA and IFEH combined AEC this year. Las Vegas was the perfect place to have it. The presenters, accommodations, staff, and topics were impeccable. It was fantastic to catch up with old friends and make new friends, especially recent graduates looking for that first, valuable environmental health job! I returned to my hometown with loads of learning, thoughts of improving my local agency, new ways of seeing things, and gratitude for my environmental health colleagues from all over the world. We DO make a difference!"

Greening of the AEC

Fourth Annual Community Volunteer Event



For the fourth year, NEHA organized a community volunteer event at the AEC to support NEHA's sustainable efforts and give back to the AEC host city and community by helping to offset the energy expenditures and greenhouse gas emissions from holding a large conference. This year's event was held at the Clean the World Foundation's Las Vegas recycling operation center.

Clean the World's mission is to collect and recycle soap and shampoo products discarded by the hospitality industry and prevent millions of deaths caused by hygiene-related illnesses through the distribution of these and other donated hygiene products to impoverished people. Clean the World has accepted in-kind donations of more than one million dollars and put over nine million soap bars and two million pounds of bottled amenities back into human use—while simultaneously diverting over 600 tons of waste.

Clean the World is committed to maintaining an environmentally and hygienically safe recycling process. As the world's first high volume soap recycler, it ensures all bars of soap that are recycled are completely safe using two recycling methods:

rebatching and sterilization. The result is the complete elimination of pathogens such as *Listeria monocytogenes*, *E. coli*, *Pseudomonas aerogenes*, *Salmonella*, and *Staphylococcus aureus*.

Twenty-two volunteers attended a 15-minute orientation and unwrapped two pallets of soap that had 15 boxes each and weighed 900 pounds each. The unwrapped soap was melted and made into half a pallet of new soap. This new soap will be donated to local charities in need.

Volunteers worked so quickly and efficiently that they had time for a short tour to learn about the new soap machine and melting/sanitation process.

Volunteers had the opportunity to work alongside their fellow AEC attendees for a great cause and give back to the local community, all while supporting environmental health and sanitation. NEHA again provided collapsible water bottles and Starbucks sponsored the transportation and provided snacks.

Volunteers and NEHA staff also donated at least five large bags of soap, baby hygiene products, and other travel-size amenities. Soap donations will be placed in outgoing hygiene kits to local and international charities in need. Thank you to all of the volunteers for their dedication and participation!

Green Initiatives at the AEC

NEHA continues to make the AEC a more environmentally sustainable event with guidance from the ASTM/APEX Standards, a set of nine formal voluntary standards developed by the meetings, conventions, exhibitions, and events industry. Below are tangible ways NEHA and The Cosmopolitan of Las Vegas achieved some of the requirements of the standards.

Destination Choice: Las Vegas, Nevada

- Las Vegas is close to a large constituency of members, affiliates, and potential attendees.
- The venue was within five miles of an airport.

Exhibits

- Advised exhibitors how to green the exhibition.

Transport/Shuttles

- Contracted with a shuttle company for airport transfers and used mass transit when possible.

AV

- Turned off or placed equipment in power-saving mode at the end of each day.
- Used energy efficient equipment.
- AV supplier participates in an equipment recycling program.

Marketing

- Used online and electronic communications, registrations, and confirmations.
- Printed in ways that reduced the use of paper.
- Reduced waste related to attendee name badges.
- Employed reusable signage wherever possible.

On-Site Offices

- Printed in double-sided mode whenever possible.
- Reused shipping materials.

Food and Beverage

- No bottled water was served.
- Used reusable or compostable glasses, mugs, utensils, and napkins.

AEC Venue/The Cosmopolitan of Las Vegas

- Employs a comprehensive waste management program that hand sorts all solid waste for asset recovery, recycling, and diversion from landfills.
- Considers environmental impact and ethics/reputation of food vendors such as ecological destruction; endangered species; treatment of animals and raising practices; use of chemicals, preservatives, color enhancers, and hormones; etc.
- Purchases organic, local, seasonal, or sustainable foods and beverages.
- Offers vegetarian/vegan meals.
- Donates leftover food from large events to community organizations.
- Composts food waste.



Innovation and International Focus

Training and education are the top reasons why people choose to attend the AEC. This year's agenda was focused around innovation in environmental health and the partnership with IFEH. NEHA included sessions with an internationally focused topic or presenter in each educational track and offered an "International EH: IFEH Special Sessions" track dedicated to IFEH presenters who covered environmental health issues from an international perspective.

We solicited presentations that addressed the challenges of building agency capacity under budget cuts and a fast-changing workforce with innovative responses such as new research/tools/technologies, novel approaches/strategies or collaborations, alternative business models, new programs or methods of program management, new funding streams, new applications of existing skills or resources, new applications of technology, and process improvements across environmental health disciplines.

The educational program included over 170 oral presentations in several formats including mini lectures, lectures, interactive lectures, and learning labs (facilitated group exercises). These sessions provided opportunities to obtain comprehensive information from more than 250 experts. Also, we had some educational sessions that were more attendee driven. In two poster sessions 59 posters were presented, and several drop-in learning lab sessions took place. Poster sessions allowed attendees to look at poster graphics and displays and inquire with the presenters specifically about their area of interest or about their own application of the information. The 15 drop-in learning labs allowed a similar interaction, except that the stations "presented" a live demonstration or hands-on practice in which an attendee could inquire specifically about their own needs to solve their own problems in many areas of environmental health.

This year NEHA also made an effort to crowdsource solutions to common problems environmental health practitioners encounter. The "Graffiti Wall" was a quick and easy way for attendees to exchange ideas and take home valuable ideas, solutions, and prac-



AEC attendees listened intently to a food protection and defense speaker discuss the benefits of incorporating new technology in their routine inspections.

tices. Information from the Graffiti Wall is available on the Virtual AEC Web site.

Two preconference workshops were offered this year: Springboard to Prevention: The Model Aquatic Health Code (MAHC), 1st Edition and Industry-Foodborne Illness Investigation Training and Recall Response (I-FIIT-RR). Both were very successful. The MAHC workshop had over 135 attendees and I-FIIT-RR was filled to capacity.

Review courses and exams for NEHA's Registered Environmental Health Specialist/Registered Sanitarian (REHS/RS) and Certified Professional of Food Safety (CP-FS) were offered after the AEC. A review course and exam were also offered after the conference for NEHA's retail and processor HACCP certifications.

Overall, training and education at the conference spanned an amazing eight days!

Return on Investment (ROI)

NEHA intends for attendees to return to their workplaces with the ability to more than pay for their trip to the conference by continuing to incorporate ROI principles into the education and training structure. The AEC planning committee set out to deliver sessions that 1) were relevant to attendees' job duties; 2) offered new knowledge, skills, or strategies; and 3) gave attendees either an opportunity to practice or the means to apply and implement the new knowledge, skills, or strategies upon returning to their workplace. To that end, presenters were guided to create presentations around learning objectives as tangible outcomes for attendees.

NEHA will measure the ROI of the AEC by distributing a series of electronic surveys to



The Graffiti Wall, new this year, provided AEC attendees with the opportunity to share their ideas on a variety of environmental health topics.

conference attendees over a span of approximately six months inquiring about what was gained, what was applied or implemented, and the quantifiable difference it made in performance, efficiency, or expense.

Environmental Health Topics Covered: You Spoke and We Listened!

Comments and suggestions provided in the 2013 AEC attendee survey, 2014 AEC market research survey, and on NEHA's abstracts blog were used to identify areas to emphasize in the educational program. A heavy emphasis was put on inspection technology and the use of apps in environmental health. Sessions that addressed concerns related to the future of environmental health practice; demonstrating program effectiveness, value, and ROI for environmental health programs; and building agency capacity under reduced budgets were pursued and offered at the AEC.

Many sessions also addressed evaluation of the built environment and its link to public health, water reclamation and reuse, and the role of environmental health in sustainability and climate change. The AEC's training and education program covered all of the following topics.

- Children's Environmental Health
- Emergency Preparedness and Response
- Emerging Environmental Health Issues
- Environmental Justice
- Food Protection and Defense
- General Environmental Health
- Hazardous Materials and Toxic Substances
- Healthy Homes and Communities
- Indoor Air Quality

- Injury Prevention and Occupational Health
- International Environmental Health
- Land Use Planning
- Leadership/Management
- Nuisances, Zoonoses, and Vector Control
- Onsite Wastewater
- Pathogens and Outbreaks
- Recreational Waters
- Schools/Institutions
- Sustainability/Climate Change
- Technology and Environmental Health
- Terrorism/All-Hazards Preparedness
- Uniformed Services
- Wastewater
- Water Quality

Expanded Onsite Wastewater Offerings

NEHA again partnered with the State Onsite Regulators Alliance, Captains of Industry, and the U.S. Environmental Protection Agency's Office of Wastewater Management to develop the educational sessions for the onsite wastewater educational track as well as an off-site field trip. The field trip took place prior to the start of the conference and involved visiting two water reuse and recycling communities. The first stop was Clark County Water Reclamation District's Desert Breeze Water Resource Center, a state-of-the-art facility that collects wastewater flows from the surrounding neighborhoods to produce high-quality reclaimed water and uses it for large turf irrigation applications such as parks and golf courses. The second stop was Las Vegas Valley Water District's Springs Pre-

For those who did not attend the AEC or who attended but did not get to view all the desired sessions, 35 sessions were recorded for viewing online at www.neha2014aec.org/virtual-aec-sessions. These sessions are eligible for NEHA continuing education credits and will be available to conference attendees and Virtual AEC purchasers for the next 12 months to view at their convenience.

Many attendees also used the Virtual AEC Your Meeting Companion to get more out of the conference using the mobile app. Present at the AEC were on-site staff from Zerista's App Squad, who added a personal touch helping attendees use the tool on their mobile devices.

Features of the Virtual AEC Meeting Companion included viewing the AEC schedule, interactive maps, session information, exhibitors, speaker information, and attendee profiles; setting up personal profiles, engaging and networking with other attendees, speakers, and exhibitors; and swapping digital business cards.

serve facilities where they reclaim wastewater for reuse on its 180-acre campus.

The educational program included more information on the technology and regulations behind wastewater reuse as well as an in-depth look at real estate point of sale inspection requirements. The education concluded with a data sharing discussion intended to ease the implementation of new onsite wastewater products and technology.

Partners

Other organizations that worked synergistically with NEHA to produce educational content for the conference include the Association of Environmental Health Academic Programs, Association of Pool and Spa Professionals,

Centers for Disease Control and Prevention, Food and Drug Administration, International Federation of Environmental Health, State Onsite Regulators Alliance and Captains of Industry, Uniformed Services Environmental Health Association, U.S. Environmental Protection Agency, and U.S. Department of Agriculture's Food and Nutrition Service.

NEHA's Technical Advisors

Finally, NEHA would be remiss if it did not give recognition and thanks to the group of dedicated individuals who make up NEHA's Technical Advisors. The Technical Advisors assisted in the creation of the AEC's training and education program. Please see page 51 for a complete listing.

Grants, Partners, and Sponsors

Grants

- » Food and Drug Administration

Partners

- » Association of Pool and Spa Professionals
- » Centers for Disease Control and Prevention/National Center for Environmental Health
- » Food and Drug Administration
- » International Federation of Environmental Health
- » NEHA Technical Advisors
- » State Onsite Regulators Alliance and Captains of Industry
- » Uniformed Services Environmental Health Association
- » U.S. Department of Agriculture, Food and Nutrition Service

Sponsors

Tier I

- » UL

Tier II

- » American Public University
- » Decade Software Company, LLC
- » Health Space USA Inc.
- » NSF International

Tier III

- » Digital Health Department, Inc.
- » National Restaurant Association
- » Prometric
- » Remco
- » Skillsoft

Tier IV

- » Mitchell Humphrey Software
- » Orkin

Tier V

- » Anua
- » GloGerm
- » Industrial Test Systems, Inc.
- » Mars Air Systems
- » Mycometer
- » Perkin Elmer
- » Presby Environmental, Inc.
- » San Jamar
- » Starbucks Coffee Company
- » Sweeps Software, Inc.

Honorable Mention

- » Center for Environmental Research & Technology, Inc.
- » LCDR James Speckhart
- » The Kroger Co.

ENVIRONMENTAL HEALTH NETWORKING

Exhibition

This year's exhibition was loaded with information, new products, and invaluable services to help attendees and their organizations improve their environmental health programs and operations. The exhibition opened on Tuesday night with the Exhibition Grand Opening and Party. All enjoyed an evening of food, fun, and of course, the opportunity to do business at this party! The exhibition also gave attendees the chance to view over 30 posters covering a broad spectrum of environmental health topics and engage with presenters in a lively, interactive format.

This year's door prizes included a Roomba, Bluetooth wireless speakers, and a Kindle Fire. Three lucky winners received the door prizes, which were made possible by generous donations from Decade Software Company, LLC;



AEC attendees got a chance to chat with keynote speaker Dr. Mark Keim in CDC's booth.

Forensic Analytical Labs; GLO GERM; NSF International; QuanTEM Food Safety Laboratories; Dr. Welford C. Roberts; Salcor, Inc.; Shat-R-Shield, Inc.; and The University of Findlay.



One of the lucky winners of the door prize drawings that took place in the exhibition!

Silent Auction

A big thanks to all those who participated in making this year's Silent Auction a huge success! All 41 items were won and purchased for a grand total of \$2,586, which will be applied to the 2015 AEC speaker fund. The Silent Auction would not have been possible without the generous contributions from NEHA members, affiliates, exhibitors, sponsors, board, and staff.

Some of this year's big ticket items included a two-night stay in a terrace suite at The Cosmopolitan of Las Vegas, a three-night stay with breakfast for two at the Renaissance Orlando at SeaWorld, and a case of specially made brown ale from Bonfire Brewing in Eagle, Colorado, appropriately called "Sanitarian Insanity!" The case of beer was generously donated by the Colorado Environmental Health Association along with a Colorado-themed gift basket. Other celebratory baskets were donated including the San Diego ale basket from the California Environmental Health Association, the Pahump Winery gift basket from the Nevada Environmental Health Association, and a wine basket from the Alabama Environmental Health Association.

The Wyoming Environmental Health Association included their ever-popular "How to tell if you're a health inspector" t-shirt as a part of their donation; the Indiana Environmental



Thanks to the generous donors, AEC attendees were able to scoop up some great items ... if they bid high enough!

Health Association contributed a beautifully framed photo titled, "Brown County, IN"; and the Minnesota Environmental Health Association donated the "Minnesotan's Camper Kitchen," which was full of fantastic treats and other fun goodies. Oklahoma, Missouri, Texas, and Connecticut also provided generous gift baskets.

Perhaps the most interesting donation came from the Massachusetts Environmental Health Association: two t-shirts and three Duck Dynasty books! The bidding was energetic on those items!

Foreign attendees also participated. The Dutch Association of Food and Non-Food Products Inspectors contributed two traditional wooden shoes with caramel candy and the Chartered Institute of Environmental Health donated

two sets of public health books. Two nice leather notebooks from NSF and a REHS workbook were also donated. Finally, NEHA donated pens, logo shirts, and a 2015 AEC registration.

NEHA offers its sincere gratitude to volunteers Regina Poteat and Dawn McFadden and to all the attendees who helped to make this year's Silent Auction a success!

Silent Auction Donors

NEHA affiliates: Alabama, California, Colorado, Connecticut, Indiana, Massachusetts, Minnesota, Missouri, Nevada, Oklahoma, Texas, and Wyoming.

Matt Brosh	NSF
Haskey Bryant	NEHA board of directors and staff
Erin Cavin	Marco Palmeri
Chartered Institute of Environmental Health	Mindi Ramig
France A. Cordova	Renaissance Orlando at SeaWorld
Cindy Corley	Walter Saraniecki
Sarah Crossman	The Cosmopolitan of Las Vegas
Dutch Association of Food and Non-Food Products Inspectors	Paul Taylor
Jan Homma	Jim Topie
Roy Kroeger	Peter Wright
Pat Maloney	
Mike Mettler	

Exhibitors

ABC Trading Solutions	Feel Good, Inc.	NEHA Training & Education
Advanced Drainage Systems, Inc.	Forensic Analytical Laboratories	Neogen Corporation
American Academy of Sanitarians	Gizmo Experts	NSF International
American Chemistry Council	GloGerm	Ozark River Hygienic Hand-Wash Station
American Public University	HealthSpace USA Inc.	Paster Training, Inc.
Anua	Hedgerow Software Ltd.	PerkinElmer
Aqua Test, Inc.	Hoot Systems	Polylok, Inc.
Association of Environmental Health Academic Programs	Industrial Test Systems, Inc.	Presby Environmental, Inc.
Association of Food and Drug Officials	Inspect2GO	Prometric
Association of Professional Piercers	InspekPro LLC	QuanTEM Microbiology Laboratories
Association of Schools and Programs of Public Health	Instant Off	Remco Products Corporation
Bio-Microbics, Inc.	International Federation of Environmental Health	RIAMS UK/Australia
California Conference of Directors of Environmental Health	ITW Professional Brands	Salcor
Cambro	Jet, Inc.	San Jamar
CDC, National Center for Environmental Health/Agency for Toxic Substances and Disease Registry	LaMotte Company	Shat-R-Shield, Inc.
CDC, National Environmental Public Health Tracking Network	Mars Air Systems	Skillsoft
CDP, Inc.	Michigan State University, Online Master of Science in Food Safety	StateFoodSafety.com
Columbia Southern University	Michigan State University, Program in Public Health	STOP Foodborne Illness
Conference for the Model Aquatic Health Code	Mitchell Humphrey	Sweeps Software, Inc.
Decade Software Company	Momentum Software	ThermoWorks
Digital Health Department, Inc.	Mycometer, Inc.	Track-Assist Online
Eljen Corporation	National Environmental Health Association	UL
FDA, Center for Safety and Applied Nutrition	National Library of Medicine	University of Findlay
	National Restaurant Association	U.S. EPA, Office of Water
	National Swimming Pool Foundation	U.S. EPA, Indoor Environments Division
		USDA, Food Safety and Inspection Service
		Walden University



National Environmental Health Association (NEHA) Annual Educational Conference (AEC) & Exhibition

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FOR INFORMATION.



Board of Directors' Meeting Highlights

NEHA's board of directors meets four times each year, with one meeting always held at the AEC.

1. **AEC guests:** The AEC meeting is the only one in which guests may address the board on various topics. This year, the board welcomed guests from the Association of Environmental Health Academic Programs, Decade Software Company, International Federation of Environmental Health (IFEH), and Royal Environmental Health Institute of Scotland, among others.
2. **CDC/National Center for Environmental Health (NCEH) and NEHA discussions:** An update was presented concerning the work NEHA is doing in cooperation with CDC/NCEH and the International Code Council (ICC). Discussions were held in May 2014 to develop a strategy whereby all three organizations could work cooperatively to advance and encourage adoption of the Model Aquatic Health Code and the ICC pool code.
3. **AEC and exhibition topics:** Former Executive Director Nelson Fabian explained that this AEC had the highest number of registrations since Tucson (2008) with almost 900 registrants. He stated that while the attendance for the IFEH Congress was not as much as hoped, the ability for NEHA to cohost with IFEH is noteworthy, since it has been more than three years in the making. He added many potential attendees had issues in obtaining visas or travel permits. In addition to an increase in registrations, the level of sponsorships increased by nearly 50% over last year's AEC. He added that in addition to the outstanding educational program, other programs like the Community Volunteer Event continue to draw solid numbers each year.
4. **Audit:** NEHA auditors confirmed that no issues existed with NEHA's financial statements and gave NEHA a clean bill of financial health.
5. **Search for a new executive director:** President-Elect Carolyn Harvey indicated that the NEHA subcommittee had its first meeting and the committee is currently developing a list of search firms and a request for proposals (RFP). She also indicated



NEHA's board of directors take a minute to pose as a unified group after finishing up a long board meeting at the start of the AEC.

that the committee established a tentative salary range for the new executive director. She added that a list of firms should be finalized by the end of August.

6. **Membership:** The board reviewed and approved staff proposals to the new tiered membership to become available on October 1, 2014. The tiered membership will provide individuals with the option to select a membership that includes a print and electronic copy of the *Journal of Environmental Health (JEH)* or a membership that includes just an electronic copy of the *JEH*.
7. **Position paper in support of the Registered Environmental Health Specialist/Registered Sanitarian (REHS/RS) credential:** The board reviewed a position paper to support the REHS/RS credential for environmental health professionals. Pending approval of this document, the position paper will be added to the other position papers on the NEHA Web site.
8. **E-voting for regional vice president vacancies:** In an effort to reduce the amount of time between a vacancy in the office of a regional vice president and appointment by the board, the board approved the process that such vacancies will be decided by the voters of the region, rather than the board.

Town Hall Assembly

In what has become almost a tradition, Town Hall Assembly attendees were treated to breakfast that was generously sponsored by the National Restaurant Association (NRA). NEHA President Alicia Enriquez-Collins called the meeting to order and invited David Crownover from NRA to provide a welcome.



NEHA's leadership had the opportunity to interact and field questions from attendees at the Town Hall Assembly.

President Enriquez-Collins then reported on the status of the association over the past year. Her report underscored the various activities NEHA has engaged in, as well as its future directions.

NEHA's election process and summary for the 2014 election were shared. President Enriquez-Collins announced the election results.

- Adam London was elected as second vice president,
- Ned Therein was appointed vice president of Region 1,
- Sandra Long was reelected as vice president of Region 5,
- Tim Hatch was appointed vice president of Region 7, and
- Lynne Madison was elected as vice president of Region 6.

President Enriquez-Collins asked for any nominations from the floor for 2015 second vice president candidates. None were made. Second vice president candidate Vince Radke, who submitted his nomination paperwork to the NEHA office by May 1, 2014, was introduced and given five minutes to speak. Since there were no other candidates for the position, Radke will become second vice president at the end of the 2015 AEC.

NEHA Managing Director Larry Marcum made a special presentation, updating the status of NEHA's grants, contracts, and government affairs program. The floor was then opened up for any member to ask questions or provide comments. Several members recognized and thanked former Executive Director Nelson Fabian for his work and years of service.

Awards Ceremony & Keynote Session

This event opened with tradition and style. NEHA incorporated a long-standing IFEH tradition of a cultural event to welcome attendees and delegates to the World Congress's host country or locale. In this case, the AEC planning committee felt that tapping into the U.S.'s mass exportation of arts and entertainment, with a definitive Las Vegas flavor, was the way to go. Who better to kick off the conference than the King himself ... Elvis Presley! His charisma was contagious and his iconic dance moves got the audience excited with a three-song serenade that finished up with VIVA LAS VEGAS!

Keynote

NEHA attendees were privileged to have Mark Keim, MD, associate director for science in the Office for Environmental Health Emergencies, National Center for Environmental Health/Agency for Toxic Substances and Disease Registry at CDC, as the keynote speaker. Dr. Keim is one of the foremost experts in the field of disasters and emergency response.

Dr. Keim began his presentation by recounting his personal experience as a survivor of the 1982 F-4 tornado that devastated the town of Marion, Illinois. Ten people died, hundreds were injured, and the town sustained more than \$60 million in damage. Global climate change is predicted to increase the probability of extreme weather events and the consequences of extreme weather events also cause extreme health issues. He noted that disasters are increasing worldwide and that interventions must address causes of population vulnerability and not merely the response to such disasters.

Dr. Keim reviewed the evolution in disaster mitigation from response to preparedness to risk management. He further explained the differences between risk management and risk reduction. The focus of disaster risk reduction (DRR) is in preventing a disaster's related adverse health effects *before* it happens. He stated that DRR deals with the root cause of risk reduction and that it is more effective in reducing mortality rates associated with a disaster.

He defined *risk* as the probability that an event will occur, and that the convergence of



Keynote speaker Dr. Mark Keim spoke to a packed room about disaster mitigation and environmental health's contribution to reducing disaster-related morbidity and mortality.

four key factors affect one's disaster risk—hazard, exposure, vulnerability, and capacity. He gave definitions and examples of each of these factors. He posited that countering disaster risk requires reducing the hazard, amount of exposure, and vulnerability of individuals while increasing the capacity of potentially affected individuals or populations. He noted that reducing exposures can be accomplished by floodplain management, land use planning and regulation, and population protection through increased sanitation and hygiene. Dr. Keim stated that reducing vulnerability levels of populations is done by reducing poverty, promoting health and health care, community planning, and immunization.

In addition to reviewing DRR concepts, Dr. Keim reviewed the National Prevention Strategy that identifies goals, priorities, recommendations, and measures for improving health through prevention. The National Prevention Strategy's seven priorities are designed to improve health and wellness for the entire U.S. population. The seven priorities are 1) tobacco-free living, 2) preventing drug abuse and excessive alcohol use, 3) healthy eating, 4) active living, 5) injury and violence free living, 6) reproductive and sexual health, and 7) mental and emotional well-being.

He explained that the National Prevention Strategy aligns with DRR key factors of mitigating health hazards, reducing exposure, and decreasing the vulnerability of populations affected by a disaster. He added that a last



NEHA President Alicia Enriquez-Collins (left) presents the Sabbatical Exchange Award to Lydia Zweimiller (right).

factor, building capacity, can be addressed by societal actions of providing public health and safety, health care, education, and reducing poverty. He noted that environmental health programs reduce the disaster-related morbidity and mortality by encouraging healthy communities (reducing exposures) and healthy people (reducing vulnerability).

If interested in more information, you can visit the LinkedIn DRR group at www.linkedin.com/in/disasterdoc/ or contact Dr. Mark Keim at mjk9@cdc.gov.

Awards and Honors

Walter S. Mangold Award

NEHA's highest honor, the Walter S. Mangold Award, was presented this year to Dr. Welford C. Roberts. Please see page 68, which details Dr. Roberts's distinguished career and contributions to the profession.

Walter F. Snyder Award

NSF International and NEHA honored Dr. Priscilla Oliver with the 2013 Walter F. Snyder Award. Please see page 69, which details Dr. Oliver's distinguished career and contributions to the profession.

A. Harry Bliss Editor's Award

This award was named after Dr. A. Harry Bliss to honor his 40 years of involvement in the production of the *Journal of Environmental Health*. This annual award recognizes individuals or groups that have made significant contributions to the *Journal*.

Nelson Fabian's Final AEC



This AEC marked the final in a long line of AECs attended by former NEHA Executive Director Nelson Fabian. After a 31-year career at NEHA, Fabian stepped down from the position on July 31, 2014. In acknowledging the tribute given to him at the closing President's Banquet, Fabian spoke from his heart about what this all meant to him. Quoting Steve Jobs about how life stories and trends make sense looking back, Fabian shared that from his experiences as a high school and college athlete to his engagement with the counterculture movement to his stint as an elected public official to his years at NEHA, he had come to realize that his life had been about connecting, connections, and being a part of something larger than himself. He offered that meaning and value derive from being connected, as in one's family or even the NEHA family. He called his many NEHA connections dear friends and expressed his deep gratitude for the bounty of friendships he made thanks to NEHA and how precious those friendships were to him.

It gave NEHA great pleasure to announce that by unanimous decision, the 2014 recipient of the A. Harry Bliss Editor's Award was Nelson Fabian. Fabian had been NEHA's executive director and managing editor of the *Journal* for the past 31 years. Over the span of his career at NEHA he penned around 270 columns. His columns provided members with a direct look into the internal workings of NEHA as well as the internal workings of his mind. Beyond the column, he was a driving force behind the continual evolution, growth, and improvement of the *Journal*.

Educational Contribution Award

This award recognizes NEHA members, teams, or organizations for an outstanding contribution within the field of environmental health. The award is a pathway to share creative educational methods and tools to educate one another and the public about environmental health.

Jason Chessher and Cindy Corley of the Garland Health Department (Texas) were the recipients of this award for their work on developing a video to educate students on methods of mosquito control and disease prevention.

Nelson E. Fabian Environmental Health Innovation Award

This award recognizes the creation of new ideas, practices, or products that have a positive impact on improving environmental health services or quality of life. This award also encourages other environmental health professionals to search for creative solutions to challenges. In honor of his innovative spirit and service to NEHA, it was announced at the awards ceremony that the name of this award was being officially changed to the Nelson E. Fabian Environmental Health Innovation Award.

NEHA was pleased to name the Sacramento County Environmental Management Department as the recipient of this year's award for its Cross Connection Program.

Excellence in Sustainability Award

NEHA's Excellence in Sustainability Award recognizes organizations, businesses, associations, and individuals who are solving environmental challenges by using innovative and environmentally sustainable practices. UL generously sponsors this award through a \$1,000 honorarium and award memento.

Energy Smart Colorado was selected as this year's winner. Energy Smart Colorado is a multi-jurisdictional, comprehensive energy-efficiency retrofit program that provides health, safety, and energy efficiency services to rural mountain communities in Colorado.

Sabbatical Exchange Award

This award offers an amazing opportunity for professional growth and information exchange on an international level. The recipient may go either to England, in cooperation with the Chartered Institutes of Environmental Health, or to Canada, in cooperation with the Canadian Institute of Public Health Inspectors. UL currently sponsors the sabbatical.

The award jury this year selected Lydia Zweimiller, REHS, an environmental health specialist with the Virginia Department of Health, as this year's recipient. Ms. Zweimiller will study retail food safety enforcement in the United Kingdom.

NEHA/AAS Scholarship Awards

This scholarship program is cosponsored by NEHA and the American Academy of Sanitarians. A committee chaired by NEHA Past President Jim Balsamo manages the scholarship program. The following scholarships were presented on behalf of the committee.

- \$2,500 graduate scholarship to Huisuo Huang from the University of Missouri
- \$1,500 undergraduate scholarship to Genette Lynn Stump from Old Dominion University

Student Research Presentations

Every year, the Association of Environmental Health Academic Programs (AEHAP) and CDC/NCEH sponsor and financially support undergraduate and graduate student research presentations. Thanks to a generous donation from NCEH, six students and their faculty mentors had the opportunity to present their research at the AEC. Each student participant received a \$500 award, a plaque, and a stipend of up to \$1,000 to cover travel and research expenses.

Effects of Blood Meal Source on Aedes albopictus Life Table Characteristics and Vector Competence for Dengue Virus
Caitlin van Dodewaard, Graduate Student, East Carolina University

Removal of Arsenic From Water Under Static-State Conditions
Jordan Kyle Finneseth, Undergraduate Student, California State University, San Bernardino

Single and Binary Adsorption of Heavy Metals in Aqueous Solution Using Shrimp Shells Derivatives
Noelle A. Mware, Undergraduate Student, Benedict College

Competitive Adsorption of Pb²⁺, Cu²⁺, and Cr²⁺ via a Packed Bed Column Using Pinecone Derived Adsorbents
Faith A. Kibuye, Undergraduate Student, Benedict College

The Lurking Element: A Study About the Dangers of Lead and Other Harmful

Elements in Northern Kentucky Toy Vending Machines

Brittany Wells, Undergraduate Student, Eastern Kentucky University

PM_{2.5} Airborne Particulates Near Frac Sand Operations

Kristen A. Walters, Undergraduate Student, University Wisconsin, Eau Claire

NSF International Scholarship

AEHAP, in partnership with NSF International, offers a paid internship project to students from National Environmental Health Science and Protection Accreditation Council-accredited programs. The NSF International Scholarship program is a great opportunity for an undergraduate student to gain valuable experience in the environmental health field. This year's winner was Keidre' Long, an undergraduate student from Eastern Kentucky University. Long's research was titled "National Survey on the Model Aquatic Health Code."

Dr. Neil Lowry Memorial Award

The Dr. Neil Lowry Memorial Award honors and recognizes public health officials who have made outstanding contributions to advance the public's healthy and safe use of recreational water. The award is given by the Association of Pool & Spa Professionals (APSP) in memory of Dr. Lowry, a long-time member of APSP, who influenced the pool and spa industry for over 25 years as a consultant to government and private industry. This year's award was presented to Middlesex-London Health Unit in Ontario, Canada.

Past Presidents Award

Each year, the Past Presidents group, comprised of former NEHA presidents, identifies a hero from the profession who accomplishes much on behalf of environmental health, but who does a lot of work behind the scenes. This year, the presidents identified two NEHA members who have made enormous contributions to the field. They were happy to recognize Dr. Priscilla Oliver and Tim Hatch.

Presidential Citations

This special award is given to individuals who have made exemplary contributions to NEHA during the president's term of office. President Alicia Enriquez-Collins presented Presidential Citations to the following individuals.

Marcy Barnett	Michele DiMaggio
Darryl Booth	Tamara Giannini
Brian Collins	Craig Gilbertson
Rick Collins	Carolyn Harvey
Steven Cooper	Tim Hatch
Bob Custard	Marion Hinners

Rod House

Mel Knight

Keith Krinn

Sandra Long

George Nakamura

Terry Osner

Dick and Sandi

Pantages

Sheila Pressley

Kristen Ruby-Cisneros

Davene Sarrocco-Smith

John Steward

Sacramento County Environmental Management Department

Certificates of Merit

Certificates of Merit are awarded to affiliate members who make exemplary contributions to the profession. Each affiliate selects winners based upon its own criteria for recognition. For 2014, the following winners were announced.

- Alaska—Bruce Gazaway
- California—Corwin Brown
- Colorado—Carmen Vandembark (Individual) and Boulder County Public Health, Environmental Health Division Staff (Team)
- Connecticut—David Rogers
- Iowa—Timothy Dougherty
- Massachusetts—Michael Blanchard (Individual) and University of Massachusetts Lowell, College of Health Science, Community Health and Sustainability, Environmental Health Program: Joel Tickner, Craig Slatin, Nicole Champagne, and Susan Woskie (Team)
- Michigan—Peggy Dawn French
- Minnesota—Christopher Forslund
- National Capital Area—Erin May (Individual) and Susan Thweatt, Debra Freeman, and Myra Leonard (Team)
- Nebraska—Scott Holmes
- Nevada—Sandra R. Baniaga-Brown
- North Dakota—Douglas E. Jensen
- Texas—Bryan W. Brooks
- Virginia—Bob Custard (Individual) and Preston Smith, Danielle Schools (Team)
- Wisconsin—Natalie M. Vandeveld
- Wyoming—Shawn Moore

Decade Scholarship Awards

Each year, Decade Software Company awards 15 scholarships to environmental health professionals to attend the AEC. A panel of Decade Software executives along with executives and elected officials of NEHA scored the short-essay responses of the applicants. The essay provided an opportunity for applicants to express their innovative ideas for the profession. This year's scholarship winners are listed below.

Rebecca (Becky) Bramlett	Carolyn Kreiger
Cara Evangelista	Denise Lucas
James Gutman	Taraleen Malcolm
Jennifer Johnson	Cynthia Oxley
	April Pearce

Kellison Platero

Suzanne Rouleau

Emily Sanders

Candice Sims

Ugochukwu Uzoeghelu

Courtney Ziemar

Student AEC Scholarship Awards

NEHA received donations through its Student AEC Scholarship Fund to provide five students with student registration and \$440 travel stipends to attend the AEC. The students submitted applications for the scholarships that included an essay on why it is important for them to receive the scholarship and what they will do at the AEC. They were recognized at the NEHA exhibit booth during the Exhibition Grand Opening Party. A total of \$2,975 was donated and used this year, and \$705 is already available for the 2015 AEC—so the 2015 AEC is off to a great start for students! Congratulations to the recipients and thank you to all of the donors!

Scholarship Recipients

Cyprian Aende

Kikelomo Akintunde

Kyra Hall

Thais House

Genette Stump

Scholarship Donors

American Academy of Sanitarians

James J. Balsamo

Corwin D. Brown

Laurie A. Cotulla

Jill Cruickshank

Bruce M. Etchison

Hohite Fetene

Steven Michael

Humble

Brett Koontz

Kroger

Robert T. Kuchar

Gloria T. Mackie

Richard W. Mitzelfelt

Wendell A. Moore

Milton A. Morris

Timothy Moulson

Kelsey Onaga

Susan V. Parris

Clark A. Pearson

Terrance Powell

Welford C. Roberts

Esther Saintime

Gina Saintime

James M. Speckhart

Charles Treser

Cynthia L. Ulch



The recipients of the 2014 Decade Scholarship Awards pose with Decade's Darryl Booth and NEHA's Nelson Fabian and Alicia Enriquez-Collins.



2014 Mangold Award Recipient

**Welford C. Roberts, PhD, RS, REHS, DAAS
Lieutenant Colonel
(Retired), U.S. Army**

NEHHA is proud to present the 2014 Walter S. Mangold Award, its highest honor, to Welford C. Roberts, PhD, RS, REHS, DAAS.

Leadership, dedication, intelligence, passion, diversity, and integrity are just a few words that one can use to describe Dr. Welford C. Roberts and his illustrious environmental health career that has spanned over three decades. Beginning in Philadelphia, Pennsylvania, Dr. Welford Clayton Roberts was raised in an urban environment and spent summers in smaller rural towns. This dichotomy of locales allowed him to experience different lifestyles and helped him realize early in life that diversity and variety help to balance a person's life—a philosophy that still influences him today and has contributed to his successes.

While attending Hampton Institute in Virginia, where he would earn a bachelor's degree in biology in 1974, Dr. Roberts joined the U.S. Army Reserve Officer Training Corps. He entered active duty in 1977 at Fort Eustis, Virginia, as a second lieutenant in the U.S. Army Transportation Corps. His introduction to environmental health occurred during this time and was quite by chance. In addition to his normal duties, Dr. Roberts was assigned the responsibility of being his battalion's safety officer. The chief of preventive medicine at Fort Eustis realized the potential within Dr. Roberts and assisted him in changing his military career field to medical service and becoming an environmental science officer. He remained at Fort Eustis and was reassigned to work for the chief of preventive medicine.

Among his many accomplishments in this position from 1978 to 1983 were the development and implementation of industrial hygiene, sanitation, risk evaluation, management, and regulatory programs. During this time Dr. Roberts was promoted to captain and earned his master's degree in biology.

After leaving Fort Eustis in 1983, future assignments would take him to the far-reaching shores of South Korea, back to American soil at Fort Detrick, Maryland, and then beyond to Washington, DC, the U.S. Environmental Protection Agency, the U.S. Army Materiel Command, and the Uniformed Services University of the Health Sciences (USUHS). During his remaining years in the military he rose to the rank of lieutenant colonel, received numerous awards and honors, and earned his doctoral degree from the University of South Carolina in 1990. Dr. Roberts retired from the military on February 1, 1997, after 23 years of service.

Not one to let retirement slow him down, Dr. Roberts was back to work just days after his last day of active service, now working as a civilian with the Henry M. Jackson Foundation for the Advancement of Military Medicine in Rockville, Maryland. When funding for this position ended, he transformed his career again and turned to the private sector. Since 2002, Dr. Roberts has worked as a government contractor for several private companies providing consulting and technical support on numerous environmental and occupational health topics. He currently works for ERP International (Maryland) supporting human performance and force health protection research for the U.S. Air Force.

During this time Dr. Roberts was often approached to provide small, short-duration environmental and occupational health services. He therefore organized such efforts under his own sole proprietorship company simply titled, "Welford Roberts." Through this endeavor he served as an independent consultant in a variety of environmental and occupational health areas.

Dr. Roberts' career as a professor began in 1995 at USUHS. He would serve on the faculty of other higher education institutions such as Trident University International (California) and Elizabeth City State University (North Carolina). Being a professor opened up avenues to him to educate and mentor future environmental health professionals, one of the qualities for which he is highly regaled and respected. He's been an advocate of the profession, promoting it to attract young students to consider it as a career field. His mentorship has enabled many to advance in the profession and has helped to shape future leaders.

Dr. Roberts has been very active in the national environmental health scene focusing on improving and enhancing the profession and increasing the quality of services to the nation. He has been a member of NEHA since 1981 and served as NEHA's president in 2009–2010. Along with this service on NEHA's board of directors, he has been involved with NEHA in many different roles. He has dedicated his time and expertise to the *Journal of Environmental Health* as a peer reviewer, member of the technical editorial advisory board, and technical editor. He has also been a NEHA technical section chair for several areas of expertise and currently serves as NEHA's technical advisor for environmental justice.

He is a member of the Virginia, National Capital Area, and Uniformed Services Environmental Health Associations, as well as a member of NEHA's Past President's Affiliate. He also dedicates his time and energy to other various professional associations. He became a diplomate of the American Academy of Sanitarians in 1987 and was awarded their highest honor, the Davis Calvin Wagner Award, in 2002. He is also a member of the National Environmental Health Diversity Recruitment Task Force formed by Eastern Kentucky University and the Centers for Disease Control and Prevention.

Major Joseph Hout, MSPH, PhD, former REHS, CPH, writes, "Dr. Roberts's noteworthy contributions to the field of environmental health as a teacher, leader, and visionary exemplify the characteristics and principles for which Walter S. Mangold stood."

Colonel Wendell A. Moore, U.S. Army (retired), DAAS, RS, REHS, writes, "Welford has always proven himself to be the consummate professional dedicated to the advancement of environmental health sanitation. His work ethic, sound judgment, superior technical competence, discipline, devotion to duty, and concern for people characterize his overall being."

Nelson Fabian, former NEHA executive director, writes, "Welford inspires by his example. There is a goodness that comes through in his interactions that make you want to be a better person. He touched me deeply with his concerns for others, for environmental health as a topic and as a profession. And everything about his concerns is genuine."

Priscilla Oliver, PhD, writes, "Welford has given exemplary quality and long service to environmental health in his work, leadership, service, consulting, and teaching positions. He has deep integrity and a vision for where we should be heading in the profession. He has been a great mentor to me and a pillar to NEHA. Welford is faithful, sometimes humble, kind, effective, and a representation of the best of the environmental health profession."

Thus, it is a privilege and honor for NEHA to present this award to Dr. Welford C. Roberts, a professional who exemplifies the philosophy, ethics, and dedication expressed through the life of the late Walter S. Mangold.



2014 Walter F. Snyder Award Recipient

Priscilla Oliver, PhD

NSF International and NEHA presented the prestigious Walter F. Snyder Award to Priscilla Oliver, PhD, at the 2014 AEC. The award, given in honor of NSF International's cofounder and first executive director Walter F. Snyder, is presented annually in recognition of outstanding contributions to the advancement of environmental health.

Dr. Oliver was honored for four decades of significant and lasting contributions to environmental and public health through education, leadership, dedication, and community service.

Dr. Oliver is a senior life scientist with the Office of the Regional Administrator of the U.S. Environmental Protection Agency (U.S. EPA) in Atlanta. She also serves as the U.S. EPA Region 4 regional program manager for Partnerships for Sustainable Healthcare, working with state agencies and hospitals throughout the southern U.S. to reduce overall hospital waste and prevent pollution. This program was first formed as a voluntary partnership with the American Hospital Association and other agencies.

Dr. Oliver lectures in environmental health at Morehouse College and Spelman College. She helped start the Morehouse School of Medicine master of public health (MPH) program and serves on the MPH curriculum advisory board. She has previously taught at Kennesaw State University, Troy University, and Clark Atlanta University, and started the Atlanta University Center Faculty Environmental Health Forum.

Dr. Oliver is dedicated to mentoring students in environmental and public health. She founded the Physician and Undergraduate Student Educational Partnerships Foundation and has advised and supervised students with clinical shadowing, service projects, and internships at the Atlanta Veterans Administration Medical Center, U.S. EPA, Georgia State University, medical facilities, health agencies, and various non-profit organizations.

As a member of the Eastern Kentucky University national environmental health diversity recruitment task force, Dr. Oliver helped develop a mentoring and recruitment strategy to enhance student and faculty diversity. This group has become known as the National Council on Diversity in Environmental Health. As a site reviewer for the National Environmental Health Science and Protection Accreditation Council, she helps colleges obtain accreditation of their environmental health academic programs. In addition, Dr. Oliver serves as a mentor for aspiring students and junior faculty.

Dr. Oliver has helped implement community public health programs, including Atlanta health fairs providing free HIV testing and an American Liver Foundation liver diseases support group for inner-city patients at Grady Memorial Hospital. She created a program for Sam Nunn Atlanta Federal Center employees to participate in the U.S. Drug Enforcement Agency/U.S. EPA National Take-Back Initiative, which removes unwanted prescription drugs from the environmental waste stream.

She was responsible for the Community Action for a Renewed Environment program, which helps communities reduce exposures to toxic pollutants and has worked with the National Environmental Justice Advisory Council providing advice and involving stakeholders in actions. She was also instrumental in developing the sustainability initiative for colleges of the South and historically black colleges and universities.

Dr. Oliver is a long-time NEHA member, including serving as co-chair, chair, and technical advisor of NEHA's hazardous materials and toxic substances section. She received the NEHA Presidential Citation and letters of appreciation for her lengthy service to the NEHA Technical Editorial Advisory Board and as a peer reviewer for the *Journal of Environmental Health*.


She secured a grant and served as project director for a Morehouse School of Medicine longitudinal study of lead poisoning in pregnant women and children. The Centers for Disease Control and Prevention has sought Dr. Oliver to serve on several panels to award environmental public health grants for enhancing cities and communities.

Dr. Oliver has received a Certificate of Appreciation from the U.S. House of Representatives for her service as a legislative fellow to the health and environment subcommittee, and won the Anthony M. Rachal Award of Excellence from Xavier University (New Orleans) for many years of service on the youth motivation task force.

Earlier in her career, she worked as a life scientist inspecting municipal and industrial wastewater facilities for the U.S. EPA and as a biologist managing environmental impact statements and assessments for the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service.

"As a trailblazer, Dr. Oliver has accomplished much on behalf of environmental health goals by teaching, being an active member of the community, and conducting research. She is highly regarded and respected for her ability to encourage environmental health education, service, and collaboration. But most of all, you will just not find a person who is more passionate and more able to excite you about contributing to the good causes that Priscilla works so hard on," said Nelson Fabian, former NEHA executive director.


"Dr. Priscilla Oliver's achievements reflect the principles expressed by Walter F. Snyder and the public health mission of NSF International," said Kevan P. Lawlor, NSF International president and CEO. "Her service educating, mentoring, and encouraging students toward careers in environmental health, as well as her work in community health and professional organizations, demonstrate her strong commitment to the promotion of environmental and public health. These accomplishments make her a worthy recipient of the Walter F. Snyder Award."



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The AEC started off with a hoot at the Terry Fator Show at The Mirage. Fator is a talented ventriloquist who won the second season of America's Got Talent and immediately became a staple on the Las Vegas Strip. Attendees were transported to The Mirage from The Cosmopolitan of Las Vegas where they were greeted by the hosts and sponsors of the evening, UL. Lots of laughs and memories were shared. It was an enjoyable evening taking in a Vegas show and sights ... and a great way to start the AEC.

Enhanced Feature Accessible Through the E-Journal



Check out the amazing AEC video where you'll see a dancing Elvis, dancing in the streets (okay, sidewalk), and so many photos taken during the conference.

The AEC was packed with many opportunities to network—be it at the Networking Luncheon, Exhibition, President's Banquet, the various meetings and sessions, or in the hotel hallways.



NEHA 2014 AEC photos by Joe Deats Photography