

# Waterworld

*“Water, water, everywhere,  
nor any drop to drink.”  
– Coleridge*

By Doug Fredericksen



Seventy percent of our planet's surface is covered by water. Of that, less than one percent is fit to drink. While pale blue cliffs of coastal glaciers calve into the sea, the delicate balance of life on our world is changing faster than we ever imagined.

Eight of the hottest years in recorded history have occurred in the last ten years. Since the turn of the century the average global temperature has risen by 1.3 degrees Fahrenheit. It may not sound like much, but it has been enough to spur the likes of Hurricanes Andrew and Katrina, inundate most of Europe in a flood of near Biblical proportions, and create a drought across Africa that has spurred the first genocidal conflict of the new millennium in Darfur.

Water is the key to life. We can go without food for weeks, but for less than three days without water. Our bodies are composed of 65 percent water. Yet throughout the world, we seem to take it for granted and refuse to conserve this precious resource.

Most of the people in Africa and Asia live on about two and a half gallons of water a day. Here in America, we each use on an average, more than 200 gallons of water a day. More than 50 percent of all the water we use is for irrigation and landscaping.

Along with the huge amount of water we waste with over-irrigation, municipalities seem to “lose” an immense amount of fresh water. New York City's oldest operating water main, the Croton system, was built in 1893, partially out of wood. The three major water mains that feed the city of New York bring billions of gallons of potable water a day to a thirsty city. Of that, there are estimates that as much as 30 percent of the water in some mains is lost through leakage. One small section of the New York system, the Rondout-West Basin alone leaks up to 35 million gallons of fresh water a day according to the New York State Comptroller's office.

The California Aqueduct has been called a wonder of the modern world. It snakes across the state for more than 444 miles, moving water at a gradual pace through carefully engineered canals. At strategic points, such as the Edmonston Pumping Plant near Los Angeles, some of the largest pumps on the planet pump billions of gallons of water up more than 2,000 feet to the crest of mountains and hills that block the waterway's path. Yet most of the aqueduct flows through the desert. The concrete canal is open to the sky and loses massive amounts of the water that flows through it due to evaporation.

While our engineers and water suppliers work long and hard to provide a seemingly unending quantity of water to thirsty American cities that are growing dramatically in dry areas like Las Vegas and Phoenix, many people in the world are forced to walk miles to obtain the most minimal and possibly contaminated supplies of water to sustain life.

There have been simple and effective solutions applied to the problems of providing water in third world situations. One such solution is the foot powered pumps provid-

ed in southern Africa by Pump Aid. The pumps are simple, cheap, and are based on a two-thousand-year-old Chinese design. Another simple innovation is the use of rolling water barrels designed to carry up to twenty times what one person could normally carry from a water source. The barrels have a handle and are designed to roll over rough-type terrain and can be reused for years. In Peru farmers have worked with local anthropologists to revitalize a thousand-year-old irrigation network that would alleviate drought problems and enable the local populace to farm in dry seasons.

While simple designs and procedures have worked wonders to save lives around the globe, it is amazing that we haven't turned our own technological prowess upon the problems of waste and overuse. The technology exists to preserve and protect the resources we have, and it is our duty as plumbers and mechanical contractors to push the envelope with implementation of this technology.

Many jurisdictions in the western half of the nation have adopted municipal codes that require small, solar-powered rain gauges on residences that measure rainfall and shut down the irrigation system during rainy times. Nothing is more infuriating than seeing a sprinkler system operating at full bore during a rainstorm. Dual flush toilets are now on the market and could save huge quantities of water.


Many cities have their own desalter facilities which can supply clean (but non-potable) water to major industrial users such as golf courses, parks, and stadiums. There is no reason why we couldn't extend this use of non-potable water to flush toilets and urinals as well.

Private gray water systems have been addressed in Chapter 16 of the 2006 *Uniform Plumbing Code*. Innovative use of these systems could save and reuse large amounts of water. Flow-restricting aerators on faucets and showers could also help in conservation. There are so many things we could, and should, do to play our part in this stressed environment.

After all, the answers aren't that difficult. Common sense dictates that we should be at least as efficient as people were two thousand years ago. Before the time of Christ, Greek and Roman architects designed their aqueducts so that 95 percent of the system was covered or underground. Some of the Greek aqueducts are as much as 65 feet beneath the ground. From all existing records, their leakage rates for municipal water mains were less than those of municipal systems today, with much of that being water “stolen” by illegal taps into the ancient water mains.

There is no reason we can't provide better services than engineers two thousand years ago. Huge losses in our municipal water systems through evaporation or leakage are both unreasonable and unforgivable. It's time our elected officials got involved in the plumb-

ing industry and made our water supplies a priority.

As plumbers, we've always fought against leaking pipes and wasted resources. It's time the common sense of the working man be put to the forefront of this battle. Our experts need to step up to the plate, modify our codes, stop the foolish waste of resources, and save the world through better plumbing practices. We have the technology, the skills, and the manpower. Let's get on with it. 



# Ten Questions to Test Your Green I.Q.

Courtesy of Nehlsen Communications

**H**ow much do you know about green building? Take the following quiz and find out. The answers to this quiz came from the Mechanical Contractors Association of Chicago's green building Webinar, "LEED® and Sustainable Design."

- 1** Lighting consumes a negligible amount of energy in most buildings.  
True or false?
- 2** Unchecked consumption of the finite \_\_\_\_\_ reserve drives more exploration and extraction at a higher economic cost, and displaces more natural resources at a higher environmental cost.  
a. solar energy  
b. fossil fuel  
c. nuclear power  
d. grain ethanol
- 3** Energy-recovery ventilators can recover \_\_\_\_\_ percent of the energy that would be lost in conditioning air.  
a. 40  
b. 60  
c. 80  
d. 100
- 4** Green roofs reduce run-off and the need for greater sewage capacity.  
True or false?
- 5** What does USGBC stand for?  
a. United States Green Beautification Committee  
b. Uniform Standards for Green Buildings and Commissioning  
c. United States Green Building Council  
d. United Society of Green Builders and Craftspeople
- 6** Underfloor ventilation can have advantages over overhead air-flow systems because warm air rises.  
True or false?
- 7** The four certification levels in Leadership in Energy and Environmental Design (LEED®) are:  
a. Certified, Yellow, Blue, Green  
b. Silver, Gold, Platinum, Green  
c. Approved, Enhanced, Upgraded, Certified  
d. Certified, Silver, Gold, Platinum

- 8** When it comes to LEED® credentials, buildings and projects are certified and people are \_\_\_\_\_.  
a. graduated  
b. honored  
c. accredited  
d. approved
- 9** Equipment in a green building cannot use CFC-based \_\_\_\_\_.  
a. refrigerants  
b. lubricants  
c. fuels  
d. illumination
- 10** Rainwater can be harvested and used for which of the following purposes?  
a. Watering lawns  
b. Eye-wash stations  
c. Flushing toilets  
d. A and C  
e. All of the above

If you scored seven or more correct answers, consider yourself green-friendly. 🌱

To find out more about MCA Chicago, visit [www.mca.org](http://www.mca.org).



Answers: (1) False (2) b. fossil fuel (3) c. 80 (4) True (5) c. United States Green Building Council (6) True (7) d. Certified, Silver, Gold, Platinum (8) c. accredited (9) a. refrigerants (10) d. A and C



**Today's homeowners** are increasingly demanding the comfort, efficiency, and added value of Hydronic Heating (baseboard, radiator, radiant heating with hot water, and indirect water heating). Plumbers, HVAC professionals, builders, and architects are also joining consumers in the drive towards specifying Hydronic Heating.

## Members of IAPMO need to stay current



on hydronic heating technology and [www.myhomeheating.org](http://www.myhomeheating.org) is the place to go! Have questions? All you need to do is ask and your question will be answered by one of the members of the Hydronics Industry Alliance.

The Hydronics Industry Alliance is spearheading this new vitality with its new Web site: [myhomeheating.org](http://myhomeheating.org). The Alliance is 29 member companies strong—and growing.



## A Powerful New Force in the Hydronic Heating Movement!

[myhomeheating.org](http://myhomeheating.org)



Visit [myhomeheating.org](http://myhomeheating.org) today and see why THIS IS JUST THE BEGINNING!



# LAS VEGAS

## CONFERENCE 2007

**I**n the tradition of the 77 conferences that have come before it, this year's Annual Education and Business Conference proved to be a week to remember. Held at the historic Flamingo Hotel and Casino in Las Vegas, Nevada, the conference was filled with thought-provoking discussions, informational education sessions and, of course, good times for all who attended. We kicked off the week with an unforgettable keynote address from actor, comedian, and motivational speaker Alan Thicke, whom many will remember from his days as popular sitcom dad Jason Seaver from the hit ABC show, "Growing Pains." Thicke did not disappoint with his humorous musings on life and tips for success, including Rule #3: "Open a joint bank account with someone who has money."

All joking aside, the 78th Annual Education and Business Conference was a fantastic week for the best and the brightest in the plumbing and mechanical industries. The City of Neon Lights was a gracious host, with plenty of sights to see and things to do at the end of each conference day.

As usual, the IAPMO staff worked hard to pull off another exceptional conference. Each year it seems as though things couldn't get any better, and yet, each year they do. The following pages are filled with photos highlighting the events of the week, from fun things like the parties and golf outing to more serious business, like the educational seminars and the code development Assembly Consideration Session. All in all, this year's conference was a rousing success. I encourage you to turn the page and read more about it!

Like many of you, I look forward to IAPMO's annual conference year after year. What other time is there for so many leaders in the plumbing and mechanical industries to gather in one place? I love watching the free flow of information and debate, knowing that out of these conversations, members are taking home lessons and ideas that will help strengthen our commitment to safety and potentially contribute to innovations in the industry. All of us are in this to help protect the public's health and safety, and participating in the Education and Business Conference is a great place to start.

Plans are already in motion for next year's conference in Atlanta, Georgia. It will be running concurrently with the ISH North America trade show, the largest of its kind for our industry, with manufacturers from the kitchen and bath, plumbing, and HVAC sectors represented. Though it's hard to imagine a conference that could possibly be bigger and better than the one we just had in Las Vegas, I know our hardworking IAPMO staff can pull it off — they do every year. If you've never been to an IAPMO conference before, we'd love to see you next year. I guarantee that it will be an experience you won't regret. See you in Atlanta!

*Russ Chaney*

- IAPMO Executive Director GP Russ Chaney

## Meet Your Board of Directors



(Front row seated left to right) Dan Daniels, Immediate Past President Christopher Salazar, Vice President Bob Siemsen, President Ron Rice, Secretary/Treasurer Ken Carlson, John Roth, and Jed Scheuermann. (Back row standing left to right) Tom Gugino, Gary Hamilton, Daniel Nunez, Fred Volkers, Robert "Bud" Riestenberg, Doug Fredericksen, Bill Ericksen, Bruce Pfeiffer, and Gary Hile.



## Industry Person of the Year

**Kurt Steenhoek**



**K**urt Steenhoek, the 2007 Industry Person of the Year, has worked tirelessly for better codes to protect public health and safety. He has been instrumental in the ongoing code battles in his state, where he serves as business manager of his local.

With his extensive background and experience as a journeyman plumber, Steenhoek's involvement in the industry runs deep. He has been rooted with his local, No. 3, since his apprenticeship more than 20 years ago. He worked with the tools until 1995, when he became an organizer for his local. He went on to serve as financial secretary/treasurer of Local 3 for six years, until he was elected business manager in 2002.

Since then, Steenhoek has been a vital part of the industry, fighting for safer codes. He is a very valuable friend to the industry and to IAPMO. 🛠️

## Award Recipients

## Government Person of the Year

**Jordan Krahenbuhl**



**T**he honor of Government Person of the Year was awarded this year to Jordan Krahenbuhl, a second-generation plumber who learned the trade under the watchful eye of his father and brothers. One can see by the way he conducts himself that Krahenbuhl has a tremendous work ethic, instilled in him through years of hard work.

Krahenbuhl has a genuine respect for the plumbing code that he so passionately defends. One never has to guess where he stands on an issue, as he always makes it crystal clear. He truly cares that a job will be installed in compliance with the code and will be a lasting monument to craftsmanship.

Krahenbuhl has been the chairman for the plumbing and mechanical code committees that provide interpretations and local amendments for building officials in Southern Nevada. He has always been a loyal supporter and leader for the Southern Nevada chapter, serving as chairman and vice chairman. He was also elected to two terms on IAPMO's board of directors, serving the central district. 🛠️

# Award Recipients

## American Flag Award

### Richard Lisle



This year's American Flag Award was bestowed upon Richard Lisle of the Southern Nevada chapter. Lisle is a graduate of a five-year union apprenticeship program and became a licensed mechanical contractor before finding his true calling as the executive director of the Mechanical Contractors Association in New Mexico and in Las Vegas, where he has served for the last 24 years.

Lisle has been a loyal supporter of the *Uniform Plumbing Code* both on the local and national levels. He has attended IAPMO's last 10 conferences, where he has spoken out on issues to support IAPMO's position.

As an active member of the Southern Nevada chapter, Lisle has provided unwavering support of the *Uniform Codes*. Board member Tom Gugino noted, "It is most reassuring to be able to pick up the phone and know that, with one call, an entire support network will be ready, willing, and able to defend our codes."

Lisle fully understands the importance of his fiduciary responsibility as a labor management trustee to provide and protect the pension and health and welfare benefits for the members. His commitment to the industry makes him the deserving recipient of this year's American Flag Award. 🏆

# George Kauffman Lifetime Achievement Award

## Gilbert Kissling



This year's George Kauffman Lifetime Achievement Award was given to Gilbert Kissling, past IAPMO president. He has been a member of IAPMO since 1987 and has been a vital part of the plumbing and mechanical community for more than 50 years.

This is not Kissling's first award; his commitment to the industry was also recognized in 1994, when he received IAPMO's Government Person of the Year award.

Kissling's résumé includes a long and distinguished list of positions he has held in the plumbing industry, including secretary/treasurer and business manager of his local; member of the UA National Code Committee; multiple board positions for cities in Texas as well as the state of Texas; and member of the IAPMO board of directors.

Demonstrating his devotion to the industry, Kissling's family takes the "brotherhood" of their local, No. 142, to a literal level; his father and brother were both members, as his is eldest son today. His family's long history with their local is a true testament to our award winner's dedication to this industry. 🏆

# Opening Session



President Ron Rice calls the opening session to order and greets the membership to the 78th Annual Education and Business Conference in Las Vegas.



Vice-President Bob Siemsen delivers the Bylaws Committee Report.



Conference chair Bill Laub Jr. introduces the Durango High School Air Force Junior ROTC color guard, which presented arms for the inaugural Pledge of Allegiance.



Members of the Durango High School Air Force Junior ROTC color guard remain at attention.



# Opening Session



Mayor Oscar Goodman welcomes IAPMO to the city of Las Vegas before entertaining the assembly with humorous anecdotes.



Conference host Jordan Krahenbuhl dons his trademark shades as he welcomes conference attendees to his city.



Paul Wilkins, director of Building and Safety for the city of Las Vegas, takes the podium to speak a few words of welcome.



Board member Tom Gugino (right) presents Richard Lisle with this year's American Flag Award.

# Opening Session



Kurt Steenhoek (left), recipient of the Industry Person of the Year award, is congratulated by President Ron Rice as board member Dan Daniels presents a plaque.



Past President Chris Salazar (left) and President Ron Rice present Jordan Krahenbuhl with the Government Person of the Year award.



Vice-President Bob Siemsen (right) congratulates Past President Gilbert Kissling (left) on receiving the George Kauffman Lifetime Achievement Award.



President Ron Rice (center) invites the crowd to stand in honoring Gilbert Kissling (left).



# Opening Session



Award recipient Gilbert Kissling poses for a congratulatory photo with Roscoe King (center) and past Kauffman Award winner Ed Saltzberg.



President Ron Rice introduces keynote speaker Alan Thicke.



Thicke, a seasoned actor and comedian, entertained the crowd with a humorous and inspirational keynote address.



# Opening Session



Companion Committee members sat front and center during the Opening Session, showing support for their spouses and partners. From left: Rita Nunez, Linda Hile, Robin Rice, Kim Pfeiffer, and Cathy Carlson.



With his signature wry humor and comedic timing, keynote speaker Alan Thicke kept the crowd laughing for nearly an hour as he shared many personal stories, from growing up in rural Canada to life in Hollywood.



Father of R&B music star Robin Thicke, Alan expressed how proud is to be able to take a back seat to his son's successful music career.



Following his keynote address, Thicke paused for a photo with board members Dan Daniels, Chris Salazar, Ron Rice, Bob Siemsen, and Jed Scheuermann.



# Luncheon for Honored Guests



Gary Hamilton, Gilbert Kissling, and Kevin Cotter smile for a photo before lunch.



Jordan Krahenbuhl, Paul Wilkins, Michael Giordano, Tom Gugino, Bill Laub, and Bud Riestenberg discuss the morning's events before lunch is served.



Seated from left: Richard Lisle, Jordan Krahenbuhl, and Paul Wilkins. Standing from left: Jimmy Mouton, Scott Easton, Bill Laub, Bud Riestenberg, Michael Giordano, and Tom Gugino.



Seated from left: Bob Siemsen, Ron Rice, Phil Campbell. Standing from left: David Montano, Dan Daniels, Rickey Fabra, Linden Raimer, Scott Hamilton, and Chris Salazar.



Seated from left: Kevin Cotter, Gilbert Kissling, and Gary Hile. Standing from left: Gary Hamilton, Ken Carlson, Bruce Pfeiffer, and John Roth.



Seated from left: Mike Massey, Ed Saltzberg, and Dick Wagner. Standing from left: Bill Erickson, Doug Fredericksen, Jack Fischer, and Allen Inlow.



Seated from left: Jed Scheuermann, Kurt Steenhoek, Danny Nunez, and Fred Volkers. Standing from left: Phil Ribbs, Courtney Arford, Denver Boney, Bob Courtner, and Russ Chaney.



Board member Gary Hamilton shares some stories with Kevin Cotter and past president Gilbert Kissling.

# WSPTC Cocktail Reception



Board members Ken Carlson, David Montano, and Gary Hile enjoy the evening.



Dwight Perkins, IAPMO regional manager, and Linden Raimer, senior director of Field Operations, get together for an evening of food and friends.



Longtime friends Phil Ribbs and Pennie Feehan share a laugh.



Dave Levanger, Leonard Ramociotti, and Terry Swisher enjoy each other's company over good food and drink.





# First Timers Dinner and Dance



Board member Doug Fredericksen (left) greets Kristy Jones, and Ralph Varoz in character as the man in the fez from "Diamonds Are Forever."



Rickey and Peggy Fabra boogie down to the great tunes pumped out by the DJ.



Lisa Dodd breaks out her best Electric Slide.



Hoping to win a prize, McKenzie James and Nathan Vasquez compare ticket stubs as Rita Nunez looks on.

# First Timers Dinner and Dance



Companion Committee member Jutta Chaney takes the mike to award door prizes during the James Bond-themed evening.



Dan Daniels is thrilled to win a model car, presented by his wife Sharon, in the evening's raffle.



Jordan Krahenbuhl and his daughter enjoy some family fun doing the Chicken Dance.



Jutta and Russ Chaney pause for the camera during the fun-filled evening.



# First Timers Dinner and Dance



Robin Rice and Sandra Ortega share a laugh and a hug as Alfred Ortega gives the model car a thumbs up.



Kristy and Dan Jones enjoy a Hallmark moment with a little smooch on the dance floor.



Patty and Dwight Perkins smile for the camera.



IAPMO staffers Sol Alba, Jacquie Jones, Jeff Ortiz, Genelle Gonzales, and Jane Lee gather 'round for a group shot.



# Exposition



This year's expo was filled with informative presentations and highly interested visitors.



Sol Alba, Richard Vrana, John Mata, and Kathleen Mihelich discuss IAPMO's new Chicago regional office.



Jaime Valdivia and Fred Steiner look on as Mike Massey pulls up information on his computer at the NITC booth.



Underwriters' Laboratory representatives answered questions about their listing process.

