

# mabwa

*A professional trade association for the betterment of the bottled water industry, providing education, government relations and a forum for the exchange of technical and regulatory information for all members of the Association.*

## A Quarterly E-Newsletter Issue 1 - 2009

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### **The benefits & services are yours**

*Members of MABWA believe in the power of people working together, connecting and collaborating.*

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## **Comptroller Susan Combs Says Future Water Shortages Threaten Texas' Way of Life**

(AUSTIN) — Developing and protecting our water resources is one of the most pressing long-term issues facing Texas, says Comptroller Susan Combs. Ensuring adequate and reliable sources of clean water is essential to protect the health of Texas citizens and the strength of the state economy.

"By 2060, more than 46 million people could be living in Texas, and demand for water will increase by an estimated 27 percent," Combs said. "According to the Texas Water Development Board, failing to meet this demand could cost businesses and workers in the state approximately \$9.1 billion per year by 2010 and \$98.4 billion per year by 2060."

The state could lose \$466 million in tax revenue in 2010 and up to \$5.4 billion by 2060 due to decreased business activity caused by insufficient water.

In addition to population growth, Texas' vulnerability to drought makes long-term water planning both imperative and challenging, Combs said. Each of the several

one-or two-year droughts in Texas during the past decade has cost agricultural producers and businesses between \$1 billion and \$4 billion annually.

Combs released a new report, *Liquid Assets: The State of Texas' Water Resources*, examining Texas' current and future water resources, the practical and policy barriers facing local and statewide water planners and possible funding mechanisms that could be tapped to develop Texas' water resources. The report also looks at the progress made by Texas' 16 regional water planning groups and the challenges those groups face in addressing their water needs.

Groundwater provides 59 percent of Texas' available fresh water, surface water provides approximately 40 percent and the remaining 1 percent is made up of reused ground and surface water. Both sources are dwindling — groundwater due to over-pumping and surface water due to sediment accumulation in reservoirs. *Liquid Assets: The State of Texas' Water Resources* reports Texas currently does not have enough water to fulfill all of its estimated future needs.

Without new management and conservation measures, in the event of a drought, water needs could increase from 3.7 million acre-feet in 2010 to 8.8 million acre-feet in 2060. If

Texas were to see a drought-of-record, up to 85 percent of the population in 2060 could experience water shortages.

In 1997, the Texas Legislature established a comprehensive water planning process in which the state's 16 regional water planning groups work with the Water Development Board to assess future water needs in their regions, propose solutions and estimate their cost, culminating in a statewide water plan that is updated every five years. This "bottom-up" approach allows maximum input from local stakeholders such as agriculture, industry, cities, water utilities and power companies.

The current State Water Plan, adopted in 2007 by the Water Development Board, includes \$30.7 billion in proposed projects. Water projects are funded by a combination of state and local dollars. In the last four years, state funding has made up approximately 2 percent of total water project funding. In fiscal 2008, the state provided \$137.9 million. Cities and other local jurisdictions say the state will need to provide \$2.4 billion by 2060 to help initiate essential, large-scale projects in communities throughout Texas. And, TWDB recently

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PRESIDENT'S  
MESSAGE

*Greetings All!*

*I trust that everybody is off to a productive year in 2009. I am pleased to report that MABWA experienced a great 2008 and we are planning to build on those successes this year by providing valuable educational and networking opportunities to help our members get through an uncertain time in our economy.*

*In 2008, our board made the decision to try something different with regard to the format of our annual conference by hosting Spring and Fall Educational Seminars. The program was focused on Best Practices and provided practical, insightful and truly helpful information.*

*Experienced bottlers and suppliers spoke on the vital elements of the business, and the buzz of the attendees was that it provided great value-added information they could utilize right away. DS Waters allowed us to tour their production plants in Grand Prairie and Katy and I wish to thank them for their generous hospitality.*

*These MABWA events were designed to be jam-packed with good educational material, networking and a chance to talk to suppliers, all on a time and cost efficient basis. I have to say that just one of the many valuable takeaways for me at the Spring Seminar was learning how to best answer customers when they ask about the Bisphenol A controversy. This has been a great help to me and I hope it has benefitted others as well.*

*I am happy to say that we are planning to provide another exciting program in 2009. While the program will be very different, it will provide just as much, if not more, value. There should be no doubt that you'll want to attend one or both of the 2009 MABWA events. Watch for the coming details as they are finalized by the MABWA Board of Directors. I'll give you a little hint about the coming program...think Water Business Boot Camp!*

*We welcome new members and invite them to get involved. One easy way for new members to participate in MABWA and get to know other members better is to volunteer to serve on one of our committees. If you would like to be involved in Membership, Government Relations, Technical or Programs & Forums, please don't hesitate to let me of any one of our board members know.*

*Remember, MABWA is your organization and if we all work together we will enhance all of our businesses and our industry at the same time. I hope to see you soon at a 2009 MABWA event.*

*Bill Parrish  
All-Wet water Co  
Carrollton, TX*

## MABWA Highlights

### 2008 Educational Seminars

In 2008, the MABWA Board of Directors focused on providing hands-on best practices education as presented and shared by leading industry bottlers representing all sized operations. The events included two educational seminars, one in May, which took place in Dallas, TX, and the second in November, which took place in Houston, TX.



The 2008 Seminar theme was "Safety, Quality, Delivery, Costs and Morale" with a session on each at both events along with a Vendor Reception & Trade Show. The Spring event also included presentations on IBWA, Filtration and One-Way Pet Bottles, plus a tour of the Sparkletts plant located in Dallas, TX. The Fall event included a Water Specialist I & II Certification training course and on-site testing, a presentation on Recycled Content in PET Containers, a Workshop on POU & POE Drinking Water Applications and a tour of the Sparkletts plant located in Katy, TX. The program provided an opportunity for attendees to earn continuing education credits, learn practical tried and true business

methods and network in a fast-paced, packed program environment. Attendees reported back that the value received by attending these events was exceptional.



*Photos (Left Column Top to Bottom): Jeff Vinyard, Crystal Springs; George Heikkinen, DS Waters of America; Rudy Ramon, Artesia Springs. (Right Column Top to Bottom): Dr. Alan Leff, Primo Corp.; Alan McDonald, AMC Water Products and Roy Parsons, Parsons Enterprises; Nancy Cooke, Primo Water, Velma Roppolo and Emily Davis, Star Solutions, Alan Leff, Primo Corp.; John Cooke, Primo Water and Lorna Schauseil, GBC Systems, Inc.*

# Plastic Bottles Used in Our Every Day Lives Q&A

**Q:** What is Bisphenol-A (BPA)?

**A:** Bisphenol-A (BPA) is a building block for polycarbonate plastic resins and epoxy resins such as 3-and 5-gallon bottles, single-serve and other packaged waters as well as canned foods.

**Q:** What is polycarbonate plastic used in food packaging?

**A:** Polycarbonate plastic is used in both beverage and food containers because it is a lightweight, high-performance plastic that possesses a unique balance of toughness, optical clarity and high heat resistance. All plastics intended for contact with foods or beverages are regulated by the Food and Drug Administration (FDA) to assure their safety. In addition, all products for food contact applications made from BPA must meet health and safety regulatory guidelines throughout the world. Polycarbonate resins are employed in food-contact uses primarily in such applications as components of food processors, microwave ovenware, tableware, refrigerator crisper drawers, food-storage containers and reusable food and drink containers. Metal food and beverage cans also have a thin epoxy resin coating that contains BPA on the interior surface, which is essential to prevent corrosion of the can and contamination of food and beverages with dissolved metals.

**Q:** What bottled water containers are made with polycarbonate plastic?

**A:** Polycarbonate is used to manufacture a variety of plastic bottled water containers from one-liter to five-gallon. The plastic used in all bottle water containers is shown to be safe through extensive research and evaluation. Bottled water and the containers it is placed in are brought to consumers under full FDA regulatory oversight. This regulatory oversight, reinforced with strong industry standards, helps to ensure that consumers will receive a clean, safe product each time they enjoy a serving of bottled water, whether packaged in glass or plastic.

**Q:** Have there been recent published studies related to BPA conducted in the United States?

**A:** Yes. The Center for Disease Control and Prevention (CDC) recently published data on BPA



from a large-scale U.S. population study. The CDC data supports the conclusion that human exposure to BPA is very low and poses no known risk to human health.

**Q:** What do the resin identification codes represent on plastic containers?

**A:** These codes indicate the type of resin used to make the plastic, to help consumers sort plastics for recycling. The resin codes indicate the container material content and carries no other designation related to health or safety. All plastics intended for food contact must meet stringent FDA safety standards before they are allowed on the market. When manufacturers develop

individual plastic packaging products, they often conduct additional testing based on a product's intended use. The plastic marked with resin identification codes 3 and 6 are not based on monomers that would necessarily contain BPA. The resin identification code #7 is designate as an "All Other" category. The #7 designates a group of materials, including renewable bio-based plastics. Thus, a small number of plastics in this category may contain BPA, but referring to the recycling symbol is not the key indicator.

**Q:** Should I be concerned about the long term safety of the polycarbonate, reusable, refillable containers that I have in my home or office?

**A:** No. Polycarbonate plastic has safely been used to make reusable, refillable water bottles, such as the 3-and 5-gallon containers that are delivered to homes and offices. The FDA reviews food and beverage packaging materials, including plastics used to make polycarbonate, reusable, refillable containers.

In a recent statement on food and beverage containers made with BPA, including polycarbonate bottles, the FDA concluded that the "Agency continues to closely follow the research in this area. However, based on all the evidence available at this time, FDA sees no reason to change its long-held position that current uses with food are safe. Considering all the evidence, including measurements by FDA chemists of levels found in canned foods or migrating from baby bottles, FDA sees no reason at this time to ban or otherwise restrict the uses now in practice.

Information Source: Plastics Division of the American Chemistry Council, International Bottled Water Association and American Chemistry Council.

## MABWA Technical: Chlorine-Free, Combined and Total

Chlorine is the common name for the oldest and most popular sanitizer in use around the world today. The term chlorine is applied to liquid bleach, powdered chlorine sources, chlorinated detergents and just about any chlorinated product used to clean or sanitize a factory.

In factory sanitation you will encounter these products as chlorinated CIP detergents, chlorinated foam cleaners, chlorinated manual cleaners as well as liquid and powder chlorine sanitizers. Sometimes this non-specific use of the term chlorine can lead to confusion, so it is important to understand what are the different compounds of chlorine that can be used in factories and what do some of the terms related to chlorine really mean.

### Forms of Chlorine:

#### Description

#### Formula

- Atomic chlorine  
Cl
- Two atoms of chlorine  
Cl<sub>2</sub>
- Sodium hypochlorite  
NaOCl

- Hypochlorous acid  
HOCl
- Hypochlorite ion  
OCl<sup>-</sup>

Atomic chlorine is very reactive and rare so very few people will ever encounter chlorine in this form. When two atoms of chlorine combine they form a molecule of chlorine. Molecules of chlorine are what chlorine gas is composed of. Chlorine gas can be purchased under pressure in gas cylinders and in this form it is often used in chemistry labs as a chemical reagent. It can also be bubbled in the water for direct chlorination of the water. Sodium hypochlorite is the form of chlorine that is most familiar to people. This is the chemical that is common liquid bleach which can be bought in small plastic jugs at a grocery store or by the railcar full for industrial applications.

Hypochlorous acid is produced when chlorine gas is bubbled into water and it can only exist in a water solution.

Hypochlorous acid is also present in small

quantities in bleach (NaOCl) solutions. Hypochlorite ion comes from sodium hypochlorite or hypochlorous acid and also exists only in water solution.

### Effect of pH:

All chlorine material we encounter in factories will be dissolved in water. Which species or material exists will depend on what the pH of the solution is.

pH	Species
<2	Cl <sub>2</sub>
2-7.4	HOCl
> 7.4	OCl <sup>-</sup>

Chlorine gas (Cl<sub>2</sub>) and hypochlorous acid (HOCl) will kill bacteria. A bleach solution made from industrial bleach will have a pH > 8 and it could be as high as 9.5. It is the HOCl that kills bacteria, which is in relatively low amounts at pH > 8. However, as the HOCl is used up the OCl<sup>-</sup> present immediately converts to more HOCl. This is why bleach solutions work so well even though their pH means the HOCl is in

relatively low concentration. Bleach is not only effective at a pH between 6 and 7; it is effective at pH up to 9.5. Chlorine bleach has been used effectively as a sanitizer for over 100 years. We tend to avoid acidifying bleach solutions because of the risk of releasing chlorine gas.

Note that chlorinated cleaners (foam, CIP) will have a pH > 11. At this pH there is no HOCl present, only OCl<sup>-</sup> so these detergents are not sanitizers. The chlorine is there to improve cleaning, especially to speed up the removal of proteins.

### Chlorine- Free and Combined:

In chlorine solutions there can be free chlorine and combined chlorine.

**Free chlorine** is the total of dissolved chlorine gas (Cl<sub>2</sub>), hypochlorous acid (HOCl) and hypochlorite ion (OCl<sup>-</sup>). In bleach solutions above pH 7 there is virtually no dissolved Cl<sub>2</sub>. (The free chlorine is sometimes referred to as active chlorine.)

**Combined chlorine** is chlorine that has reacted

with impurities in the water, usually materials such as ammonia, organic amines (chloramines) or other organic nitrogen compounds. (Powdered chlorine compounds are specially prepared chloramines and they are used because they have much greater stability than liquid bleach solutions.)

**Total chlorine** is the sum of the free and the combined chlorine. (Since some of the combined chlorine still has activity, the total chlorine is also referred to as available chlorine; it is available to kill microorganisms.) In potable water there is next to no organic material present so if you chlorinate the water there is next to no combined chlorine present. Therefore in potable water the total chlorine is essentially the amount of free chlorine present.

*This technical brief was provided by Cynthia Herold of Nestle Waters of N.A.*

### 2009 MABWA Committees

#### Membership Development Committee

Chairman Dan Humphries  
dhsc05@yahoo.com

#### Government Relations Committee

Chairman John Cooke  
jccooke@swbell.net

#### Programs & Forums Committee

Chairwoman Cynthia Herold  
cherold@perriergroup.com

#### Technical Committee

Chairwoman Cynthia Herold  
[cherold@perriergroup.com](mailto:cherold@perriergroup.com)

#### Supplier Committee

Chairwoman Velma Roppolo  
starsoln@aol.com

### 2009 MABWA Calendar

February 20, 2009

Committee & Board of Directors Meetings  
Nestle Waters N.A. - Coppell, TX

May 16-17, 2009

2009 MABWA Spring Educational Seminar  
Dallas, TX

November 12-13, 2009

2009 MABWA Fall Educational Seminar  
Houston, TX

### 2009 MABWA Board of Directors

#### OFFICERS

President - Bill Parrish, All-Wet Water Co.  
Vice Pres. - Cynthia Herold, Nestle Waters  
Sec/Treasurer - Brian Rose, Water Event  
First Past President - Roy Parsons, Parsons

#### Enterprises

#### DIRECTORS

Gil Gibson, DS Waters LP  
John Cooke, Primo Water  
Dr. Alan Leff, Primo Water Corp.  
Terry Lusk, Clovis Bottlers Inc.  
Velma Roppolo, Star Solutions Inc.  
Steve Taylor, Mountain Valley Spring Water  
Rick Doerner, Fizz-O Water Company Inc.  
Dan Humphries, Dan Humphries Sales Co.

#### EXECUTIVE DIRECTOR

Susan Gibson

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estimated that the amount needed from the state for these projects could increase to \$16.6 billion in the next statewide water plan in 2012.

To meet Texas' growing needs, *Liquid Assets: The State of Texas' Water Resources* says officials should consider a dedicated funding source for water development. Options reviewed by the Joint Committee on State Water Funding in the Legislature include a sales tax on currently tax exempt water and sewer services provided by public water supply systems; a water conservation and development fee on customers' utility bills; increasing the water rights fee currently paid by water rights holders; a water connection or "tap fee" on each water connection in the state; and a sales tax on bottled water. To ensure the state gets the most for its money and meets the critical water needs of all Texans today and in the future, *Liquid Assets: The State of Texas' Water Resources* recommends further examining the issue of water conservation to ensure all communities are making an effort to conserve existing water supplies, and strengthening oversight and accountability to ensure funds go only to projects that are truly needed.

*Liquid Assets: The State of Texas' Water Resources* recommends that officials considering proposals for water project funding should try to balance these criteria:

**Adequacy** — the financing mechanism should be sufficient to cover identified costs without burdening those who pay the fees.

**Equity** — the cost of water projects should be spread among all user groups in proportion to their demand for water.

**Specificity** — funds raised for water development projects should not be diverted to other needs.

**Affordability** — the plan should be sensitive to water users' ability to pay, since a certain level of water use is non discretionary.

**Simplicity** — the plan should be easy to administer and follow.

**Conservation** — the financing system should encourage water conservation and discourage inefficient use.

"Ensuring reliable water supplies for the future and balancing those supplies appropriately between rural and urban areas, and among agricultural, municipal, industrial and electricity-generating users is the challenge of our day," Combs said.

## DS Waters Acquires Blue Ridge Mountain Water

Tullius Partners announced that on the December 12, 2008, the assets of Blue Ridge Mountain Water, Inc., located in Norcross, Georgia were acquired by DS Waters of America, Inc. located in Atlanta, Georgia. Founded in 1989 by Diane and William Killen, Blue Ridge Mountain Water delivers a variety of bottled water and complimentary products to resident and commercial customers throughout the Atlanta metropolitan area. Blue Ridge was the largest family owned home and office bottled water delivery service in the area.

DS Waters is the leading home and office water-cooler delivery company in the United States, with such brands as Alhambra, Belmont Springs, Crystal Springs, Hinckley Springs, Crystal Springs, Hinckley Springs, Kentwood Springs, Sierra Springs and Sparkletts. Terms of the transaction were not disclosed.

Tullius Partners, represented and acted as exclusive financial advisor to Blue Ridge Mountain Water, Inc. For more information, contact Tullius Partners at 513.33.0480.

## Pharmaceuticals in Water: Home Filtering Systems Provide Best Protection for Drinking Water

As news reports about pharmaceuticals in water circulate, here are several facts for consumers to consider:

- Filtering systems in the home provide the highest technology available for treatment of drinking water. Less than two percent of all water consumed is ingested by humans, making these "POU" systems the most cost-efficient and environmentally friendly.
- While utilities are required to meet safety standards set by the U.S. EPA, home filtering systems act as a final contaminant barrier and can further purify water for drinking.
- While specific product performance standards have not yet been developed for pharmaceuticals, many point-of-use technologies have proven effective for some of these emerging contaminants. Nano-filtration and reverse osmosis systems removed drugs tested by the Colorado School of Medicine at full-scale facilities in Arizona and California. Activated carbon, distillation, ozonation and advanced oxidization have likewise shown promise in

removing many of these contaminants. Individual manufacturers can also test products for specific pharmaceutical if they choose.

- According to Utah State University Extension, up to 90 percent of oral drugs can pass through humans unchanged. These often then move through wastewater into streams and groundwater. It is generally cost prohibitive for utilities to sue systems such as nano-filtration, long contact activated carbon and reverse osmosis. However, these technologies have proven successful at removing many contaminants in home water treatment systems.
- In addition to pharmaceutical, water quality experts are examining other emerging contaminants, such as those found in personal care products and pesticides. These are often referred to as endocrine disrupting chemicals. Home filtering systems have also been proven to treat threats such as lead and mercury.
- WQA provides Gold Seal certification for products that remove a variety of contaminants.
- Consumers can learn about different treatment systems and find locally certified dealers by visiting the WQA Web site's Gold Seal and Find a Professional features.
- More information is available at WQA's Water Information Library online, which includes a search feature.

WQA is a non-profit association that provides public information about water treatment issues and also trains and certifies professionals to better serve consumers. WQA has more than 2,500 members nationwide.

# The benefits & services are yours

*MABWA believes in the power of people working together, connecting and collaborating. As a member you'll learn from the experiences of industry colleagues and you can share your experiences and ideas with others -- all working to build a better culture in your own company and a stronger and more vibrant industry. As a member you'll gain technical support & publications, critical regulatory information, sales and marketing strategies, best practices on operations and manufacturing -- receive industry news and updates, reduced costs for conferences, certification and training -- and make invaluable industry relationships. Join MABWA today by going online at*

[www.mabwa.org](http://www.mabwa.org)!



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