Cynthia Lane, Director of Engineering and Technical Services, explains how AWWA is working to protect the Earth’s most valuable natural resource: water. Here, she draws on the Association’s 133 years of experience in representing and educating water utilities across America to explain how it safeguards water supplies and systems for the future.
Could you provide a brief history of the American Water Works Association (AWWA), highlighting some of the most important moments from its expansive timeline?

Founded in 1881 by 22 representatives from the water utilities sector, the AWWA is now celebrating its 133rd anniversary. AWWA has seen many major moments take place in the water community, including: the launch of our Annual Conference and Exposition (ACE) in 1881; the first issue of our Journal – American Water Works Association (now celebrating its 100th anniversary); and the creation of the AWWA Standards Program, which now includes 165 standards and practices for water utility management and operations.

Other key highlights include the inception of our partner organisations, the Water Research Foundation, that is dedicated to advancing the science of water, and Water For People, an organisation working to bring safe and sustainable water supply practices to the developing world.

On a larger scale, AWWA has borne witness to critical changes in the process of water treatment, such as the standardisation of water disinfection, that resulted in the near eradication of cholera in the developed world. Over the last couple of decades, we’ve also seen an increase in new technology and resources that help address issues such as water scarcity and security, source water protection and infrastructure expansion and rehabilitation.

What are AWWA’s current objectives and ambitions?

AWWA’s vision is ‘a better world through better water’. With approximately 50,000 members we are the oldest and largest non-profit, scientific and educational association dedicated to managing and treating water. We want to continue to ensure the sustainability of the world’s most important resource.

Our intention is to provide solutions that improve public health, protect the environment, strengthen the economy and enhance our quality of life. To achieve these aims, we collect and share knowledge through our Standards Program and through manuals, handbooks, periodicals and other publications. We provide education to water professionals in settings like the ACE and through smaller conferences and webinars. Finally, we intend to advocate for smart water policy that reflects sound science.

What activities are currently underway at the Association to protect public health, safeguard the environment and ensure economic sustainability?

We are looking to educate our membership on state-of-the-art technologies, processes and management techniques that can support water utilities to accomplish these goals. Our Water Quality & Technology Conference (WQTC) is a cornerstone of our efforts to protect public health – a forum where preeminent experts in water treatment gather annually to discuss ways to solve the emerging water quality issues in the sector.

We also focus on ways to safeguard the environment during our Sustainable Water Management Conference, while ensuring economic sustainability is addressed during two incredibly important events, the Utility Management Conference and the Water Infrastructure Conference – we are particularly excited about the latter as there wasn’t a conference specifically focused on bringing infrastructure practitioners together to discuss the latest approaches, AWWA decided to create the Water Infrastructure Conference. It’s a conference we are particularly proud of and will be held for the first time this October in Atlanta, Georgia.

How do you maintain your reputable position in the water sector, and how do your members support AWWA's mission and vision?

AWWA simply could not carry out its work without the dedication of our members. For example, there are literally thousands of volunteers who share their expertise with our Standards and Manuals of Water Supply Practices programmes. We provide a substantial number of volunteer opportunities to our members. Individuals are invited to share their knowledge on a technical committee, by contributing a chapter to a book, or by presenting on a panel at a conference.

We work hard to keep as many members engaged and active as possible, which helps the Association and the water sector as a whole. Our members are committed to their work, they recognise their jobs are central to public health protection and want to engage with other dedicated groups and individuals. AWWA also has the benefit of 43 local chapters, where our members interact with one another on issues that are unique to their own geographic regions. Their dedication encourages a sense of commitment among our members of staff, and in turn that helps us maintain our position in the sector.

Water pollution and pathogens are pressing challenges in water management. How is the community seeking to address these concerns?

We agree that these topics are critical and therefore position them centrally during both ACE and WQTC. For instance, this year’s ACE programme includes full professional tracks on resource management, pathogens and emerging contaminants, inorganics and algae. Additionally, we host a Source Water Protection Resource Community and actively support research that strives to provide more information to water utilities about how to address these key issues.

Are you working alongside governments to develop and implement water policy and leadership in the US and around the world? At present, which concerns are high on the national water agenda?

Based on the results of our most recent State of the Water Industry Report, two of the top issues AWWA members tell us they face are an ageing workforce and the rehabilitation and expansion of our buried water infrastructure.

To further highlight these infrastructural needs, AWWA’s 2012 report Buried No Longer: Confronting America’s Water Infrastructure Challenge found that restoring existing potable water pipe networks as they reach the end of their lives and expanding them to serve a growing population could cost more than US $1 trillion over the next 25 years. To help address this issue, AWWA is pushing for legislation in the US Congress that would create a programme offering low-interest loans to water utilities for infrastructure improvements.

Additionally, AWWA recently announced a new joint programme with Engineers Without Borders USA and the American Society of Civil Engineers called Community Engineering Corps™, which offers an opportunity for our members to volunteer on projects in underserved communities right here in America. The programme not only helps us address the infrastructure issue, but also brings younger professionals together with more experienced colleagues who can help them along the way. We think it’s a tremendous opportunity to show the value of engineering jobs and a great way to energise young professionals in the water community.
On an international scale, AWWA will be sponsoring a pavilion at this year’s Singapore Water Week, and we are exploring the possibility of opening our first overseas office.

What online resources do you provide?

AWWA provides a wide variety of online resources for everyone within the water sector. We host 15 different Resource Communities that serve as collaborative platforms for sharing resources including information, tools and learning opportunities on a variety of topics.

In addition, AWWA offers an extensive portfolio of distance learning options. They are teaching methods and technologies used by students who are not physically present in a traditional educational setting. Students can take tailored or facilitated courses that allow for extended learning on a variety of water-related topics, including management or safety.

Your next ACE, ‘Uniting the world of water’, takes place on 8-11 June in Boston. What is the significance behind this year’s theme and what opportunities are afforded by this event?

The theme speaks of the ability of the entire sector’s ability to unite in one place and learn about the greatest issues facing us today. The conference isn’t only concerned with drinking water utilities, we have educational content and exhibits that also focus on wastewater, stormwater and reclaimed water. Our goal is to provide solutions for the issues that can be found throughout the water sector – all in one place.

I also think the title means something more fundamental – ACE provides more than educational opportunities; it offers the opportunity to collaborate with water professionals, network in between sessions, walk the exhibit hall together and work together to solve some of the world’s problems. We call ourselves the water ‘community’ for a reason – we are made up of many wonderful, intelligent and dedicated members, and we’re all united for a common cause.

In what capacity are you working with underserved groups such as youth and indigenous groups?

Education plays an integral part in achieving AWWA’s mission and aims to provide literature that communicates the value of water. A portion of this literature is geared toward school children. We also host a site called DrinkTap.org that offers information on various water topics, including activities for children, and is publicly available to all water consumers.

In addition, and for the first time, AWWA is participating in the US Science and Engineering Festival. This event gives us the opportunity to speak directly to the next generation about the importance of considering a career in the water sector. Given the number of retirements we expect in the coming years, these students are key to establishing a pipeline of qualified water professionals that can continue to lead the water sector in the coming decades.

With the launch of the Community Engineering Corps, we have also begun to develop relationships with underserved communities across the US, many of them on Native American reservations, who are in need of technical assistance.

Where do you see the next big advancements, both for AWWA and the water sector in general?

AWWA is expanding its international presence, and I anticipate that focus will continue in the coming years. There is great growth potential, and AWWA has many resources we can share with the global water community.

For the water sector as a whole, I see new technologies such as desalination, membrane technology and design-built technology as beginning to have an important impact. As utilities are faced with shrinking water supplies, more robust regulations and tighter budgets, tools like these will become critical to provide safe and sustainable water services.