

# WWEMA 111TH ANNUAL MEETING

**November 6-8, 2019**

**The Wigwam, Litchfield Park (Phoenix), AZ**



**5 C's of Arizona:  
Cotton, Copper, Citrus, Cattle, and Climate**

**5 E's of WWEMA Annual Meeting:  
Environment, Economy, Engage, Educate, and Empower**

## WHAT ATTENDEES SAID IN THE POST EVENT SURVEY

95%  
Excellent/Very Good  
Meeting Overall

### COMMENTS



*"The sessions were great and a good diversity of topics. Every Annual Meeting is well put together."*

*"As a first time attendee, I was thoroughly impressed with the quality of all the presenters and topics. Presenters far surpassed large national water conferences I have attended."*

*"This was a very productive, factual meeting. The presentations were very informative and diverse in topics. Well done by all WWEMA staffers."*

*"Always enjoy the Annual Meeting with the chance to enrich my knowledge on current issues and opportunity to network with my peers in the industry. Staff did a phenomenal job in selecting a wonderful resort, great weather and excellent program and meetings."*

*"WWEMA's Annual Meeting always provides us the opportunity to network with our peers to learn more about industry development and what to expect over the coming years."*

*"The WWEMA Annual Meeting is an excellent event for individuals new or experienced to connect with industry leaders and engage to make a difference on policies, regulatory issues and technology changes that will shape the future for water. It provides a no-pressure professional environment to express questions and talk about any challenges facing your company and industry. People are so willing to help each other for the betterment of society."*

*"WWEMA provides a unique opportunity to network with high-level thought leaders in the water and wastewater industry."*

*"The water & wastewater equipment niche is a unique industry—full of twist & turns and landmines to avoid. It can take years (and missed profits) to learn the industry. WWEMA's DC Forum and Annual Meeting are invaluable learning events. Many universities teach engineering, science & business—but none provide anything close to the educational opportunities with WWEMA."*

Thank you!  
From WWEMA Staff  
Vanessa, Tina, and Susi

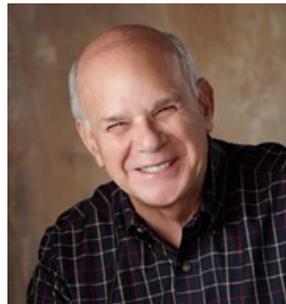
## WELCOME FROM THE MEETING CHAIR



John Dyson, Product Channel Manager - Aqua-Prime, Aqua-Aerobic Systems, Inc.; Chair of the Annual Meeting; and 2019 WWEMA Chairman of the Board, opened WWEMA's 111<sup>th</sup> Annual Meeting, which took place at The Wigwam in Litchfield Park (Phoenix), AZ on November 6-8, 2019. Dyson welcomed WWEMA members, first-time WWEMA attendees, speakers, and invited guests to the conference. After greeting attendees, Dyson thanked the current WWEMA leadership by having members of the Executive Committee and Board of

Directors stand to be recognized. He noted that 97 people had registered for the meeting, including 23 first-time attendees. He also thanked the WWEMA staff. Then he referenced the 5 C's of Arizona: Cotton, Copper, Citrus, Cattle, and Climate and the 5E's of the Annual Meeting—Environment, Economy, Engage, Educate, and Empower. This theme, which was addressed generally by each presentation, recognized change in many areas and the need for companies to be informed and proactively adopt strategies to meet the challenges this change presents.

## OPERATIONAL EXCELLENCE IN MANUFACTURING



Vince Bovino, Management Consultant and Founder, Bovino Consulting Group, provided an introduction and explanation of the *Operational Excellence System* and how it can be utilized in the manufacturing industry. Specifically, he explained how employers can design systems to improve employee productivity, reduce costs, and improve product quality. The key is to create organization alignment across the company to ensure that everyone is working toward the same mission, goals, and core values. The system has four components, which could be implemented independently, but when

done together provide the most impact. The components include a(n):

- Operating Performance Measurement System
- Incentive Pay System
- Performance Communication System
- Performance Improvement Team System

Bovino then surveyed the audience asking how many use incentive systems as part of their compensation; a fair number of attendees indicated their firms do. He cautioned that these are not likely to be effective if they do not include a Design Team where employees from various levels have input into the system's development. Bovino offered the following other comments regarding incentive systems:

- They should not include a cap or ceiling.
- As a general rule, 35 percent should go to the employee.
- Incentive pay should not be too far out in the future; a semi-annual or annual period is too long.
- They should not include 'vanity metrics' that have no impact on bottom line.
- There should not be too many metrics. He emphasized, "what gets measured, gets done." He noted four to seven metrics as a good rule-of-thumb.

Bovino also discussed the *Two-Tier Measurement System*, which is comprised of both Key Performance Indicators (KPIs) and Line-of-Site Targets (LSTs). He noted that KPIs are the foundation of the Incentive Pay System and should be recommended by the Design Team and approved by management. KPIs should measure outcomes, not efforts or activities. LSTs are "mini" measures specific to the Design Team or department. LSTs are developed by Design Team or department employees and should be limited to two to five.



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HRCI Code: 343273



## DEVELOPING A COHERENT PATENT AND TRADE SECRET STRATEGY—EASIER SAID THEN DONE!



Alexander Spiegler, Partner, Arent Fox LLP, provided a presentation to evaluate how well a company's most valuable intellectual property is protected and how to design a system to protect patent and trade secrets. Spiegler, who formerly worked at the U.S. Patent and Trademark Office, explained that it's possible to pay to expedite patent review to a one-year timeframe and that may be worth it given it may otherwise take several years to receive the patent.

Based on his experience, he encouraged those filing patents to engage with the patent office staff 'early and often' to be sure they understood the request and to establish a working relationship with them.

He noted there are several ways to protect intellectual property including patents, trade secrets, trademarks, copyrights, and agreements (e.g., non-disclosure agreements or NDAs). Spiegler explained that the authority for patents stems back to the U.S. Constitution (Article 1, Section 8), which allows inventors, for a limited time, exclusive rights to their discoveries. He explained that different patents have different timeframes; specifically:

- Utility Patents are valid for 20 years from filing. These patents cover all types of inventions.
- Design Patents are valid for 15 years from issuance. These patents cover the ornamental aspects of a structure or apparatus (i.e., the 'look', not the function of an object).

Spiegler discussed the importance of trade secrets. Trade secrets can include technical information (e.g., plans or formulas, and 'negative information' for things that didn't work) and business information (e.g., cost and pricing information, market analysis). Fiscal losses due to trade secrets theft were \$600 billion in 2017. In 2016 Congress passed the *Defend Trade Secret Act*. After passage of this *Act*, the number of trade secrets legal cases increased 30 percent. Trade secrets last forever, unlike patents, so it may be worth pursuing legal action to safeguard competitive advantage in perpetuity.

Spiegler also explained the difference between inventorship and ownership, noting that inventorship is a legal question based on each inventor's contribution and not something that can simply be "agreed on." Ownership, in contrast, can be agreed on (e.g., as a condition of employment or relationship between two companies). If there is no agreement, then each inventor has full right to exploit the invention, *without accounting to the other inventor(s)*. Spiegler's advice is to get agreements in writing to avoid problems.



## NEXT GENERATION LEADERSHIP INTERACTIVE TRAINING — DISC WORKSHOP



Greg Smith, President, Chart Your Course International, presented a concurrent interactive workshop during the afternoon of November 7, 2019, which was designed to help emerging leaders and managers maximize their full potential. The workshop used the DISC model—D (dominance), I (influence), S (steadiness), and C (conscientiousness) to evaluate behavioral styles of attendees. Using results from a report generated from a DISC survey completed prior to the workshop, attendees learned how to develop rewarding relationships, strategies for dealing with difficult people, and approaches for reducing conflict. Additionally, the workshop included various exercises to help improve communication and leadership effectiveness, leading to a better understanding of customer needs and expectations and development of management skills.

## BEING PROACTIVE ABOUT PRIVACY, CYBERSECURITY AND CRITICAL INFRASTRUCTURE



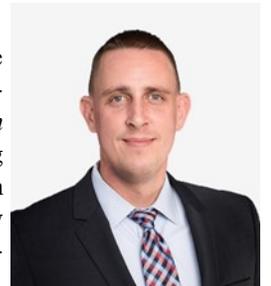
Eva Pulliam, Associate, and John Hartmann, Director of Information Security, Arent Fox LLP, delivered a presentation on how businesses can implement practical strategies to comply with new privacy regulations in the U.S. and abroad. They recommended robust record retention plans and posting privacy policies on the company website. They noted the security challenges now presented by the Internet of Things (IOT) such as phones and other devices that connect with the internet.

California now has a law governing IOT. This law, which applies to any manufacturer of connected devices that sell products in California, requires the company to have reasonable security measures for those devices. It defines connected devices as any device or "other physical object" that is capable of connecting to the internet (even by being paired with another device) and assigned an Internet Protocol (IP) or Bluetooth address.

They also referenced the new *California Consumer Privacy Act (CCPA)* and noted its applicability where California resident's personal information is involved. Key elements of *CCPA* include:

- Access, data portability, and deletions rights
- Sharing disclosures and restrictions
- Consent requirements
- Privacy policy disclosures

The presenters indicated that although the European Union was at the forefront of privacy laws with the *General Data Protection Regulation (GDPR)*, there are a growing number of state laws in the U.S. In addition to California, other states including New York, Colorado, Nevada, Ohio, and Massachusetts have emerging laws.



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## BEING PROACTIVE ABOUT PRIVACY, CYBERSECURITY AND CRITICAL INFRASTRUCTURE (CONT.)

Details about these laws are contained in the presentation in the Members-only section of the WWEMA website under Archived Presentations. Although there are many state laws governing various aspects of data privacy, there is yet to be a consistent national law in the U.S., making compliance a challenge for companies doing business in the U.S.

Additionally, the presenters reviewed key elements of an Information Security Program. Those include:

- Encryption
- Access Controls
- Audit and Accountability
- Risked-based Security Program

They indicated that the first step in this process is to catalog valuable or sensitive data within the company and then identify threats to this data. They reminded the audience that not all controls need to be sophisticated, technical controls; simple physical access restrictions go a long way in securing data.

## THE HISTORY OF RECLAIMED WATER USE IN TUCSON, ARIZONA AND THE NEW SANTA CRUZ HERITAGE PROJECT



John Kmiec, Deputy Director, Tucson Water, gave a presentation reviewing how the City of Tucson, Arizona has been continually moving to water reuse since the early 1980s. Most reclaimed water is directed to golf courses, followed by parks, and schools; agriculture comprises the smallest use of reclaimed water. The goal for Tucson was to make a switch from groundwater to surface water. For over 30 years, the city

has used the Sweetwater Recharge Facility to store water in the winter to meet peak summer demand. Wetlands near the Sweetwater recharge basins were constructed to filter backwash treatment water; these wetlands have expanded in popularity and now provide recreational and natural habitat benefits.

Kmiec also provided an overview of the Santa Cruz River Heritage Project, which helped revitalize the river with reclaimed water. The construction costs were relatively inexpensive (less than \$1M) and provided several benefits including:

- Aquifer Recharge
- Full use of Reclaimed Water
- Downtown Riparian Area
- Economic Activity
- Enhanced Cultural Connections

In June of 2019, a “Water Release Party” was held for this project. Despite unfavorable weather, it was well attended with many community and water professionals and included a blessing from the Chairman of the San Xavier District, which is one of the eleven districts of the Tohono O’odham Nation. There was unanticipated significant media interest that occurred as a result of this event and public awareness of these issues has grown.

## ALTERNATIVE PROCUREMENT MECHANISMS, CONTRACT LANGUAGE, AND RISK – WHAT YOU NEED TO KNOW



Roy Epps, Senior Vice President of Water and Wastewater, The Walsh Group, spoke about various alternative procurement methods and related contract language and risks. Epps noted the ever-increasing popularity of these methods with his firm supporting over \$1.7 billion in design-build projects and \$1.4 billion in Construction Manager at Risk (CMAR) projects. He estimates that by 2025, fifty percent of projects in the water and wastewater industry will be collaborative delivery. Further, this increase is quite significant given the overall projected growth of this market from \$5.3 billion to \$15 billion by 2025.

He reviewed the traditional ‘hard bid’ process and noted the following drive equipment selection for this method: cost, whether specifications are met, schedule, and warranty. Epps noted he believes this method does not result in the best product being delivered and often the owner doesn’t get what he intended. In this process, he stated that equipment representatives visit bidding contractors and what often results is a ‘reverse auction’ where price, which is the driving factor in selection, is reduced substantially from bid day levels. As a result, manufacturers bear much of the risk in this process; the contractors pass this risk to the manufacturers.

Epps discussed the fixed-price design-build delivery option; he believes this is one of the worst options. Among the downsides of this method are that it prolongs the implementation schedule due to the need to evaluate quotes prepared by teams responding to a request for quote (RFQ) and then determining a short list of the best teams to proceed. Additionally, it can be costly due to the need to pay a stipend to all teams responding to the RFQ. Lastly, there is limited opportunity for collaboration and any change to what the team proposed will require a change order.

In general, Epps believes that collaborative delivery methods vs. ‘hard bid’ provides the best chance of delivering the best product. He illustrated this with an example of a chlorine contact basin project, where fiberglass versus concrete was used and reduced project costs by almost two-thirds. He likes the CMAR process but recognizes that many manufacturers do not. He believes that CMAR’s upfront designer and contractor collaboration are important and it can reduce overall project risks, misunderstandings, and need for costly change orders. Additionally, CMAR offers a guaranteed maximum price (GMP) and allows for an ‘off ramp’ or exit if the final GMP can’t be agreed to by all parties. Epps did note some of the downsides of CMAR; those include:

- ‘Forced marriage’ between designer and contractor
- Reliance on engineer estimates for initial cost characterization
- Owners are unfamiliar with the process
- Requirement for separate contracts for design and construction, which creates multiple points of contact for the owner
- Final construction still has potential for change orders



## WATER IN THE WEST AND BEYOND — TRENDS, POLICIES, AND IMPLICATIONS



Guy Carpenter, Water Market Leader, Stanley Consultants, spoke about water rights in the West, increasing demand, and water planning efforts to meet these challenges. He started off by providing a description of where he saw water treatment and management evolving. For treatment, he sees more desalination, micro-filtration/reverse osmosis, and advanced oxidation processes; additionally, carbon adsorption, ion exchange, and anaerobic treatment are expected to be used.

Trends for water management include more wells and recharge due to water scarcity, decentralized and on-site treatment, real-time monitoring and use of data analytics, and redundancy and resiliency.

Carpenter discussed the Drought Contingency Plan (DCP) used to ensure stable water levels in Lake Mead. Although a voluntary plan, some states like Arizona have enacted legislation to help meet those goals; for example, recharge credits were removed. This issue is further complicated by unresolved water claims and high population build-out projections. Additionally, Carpenter discussed Arizona's salt and nitrate management program that designates priority areas and compliance permitting timelines; he noted California has a similar program.

Water scarcity drives the need for treatment to effectively treat sources of water particularly, wastewater. He also noted that there is a role for artificial intelligence to provide real-time alerts to safeguard public health in the event of system failure. Carpenter indicated that water scarcity is not just an issue in the West; he noted that Joliet, Illinois has approximately 11 years of water left. Another trend he sees is business and industry playing a role in solving water demand, as illustrated by recent projects such as the Tahoe-Reno Industrial Center. Therefore, the lessons learned in the West are applicable elsewhere to meet emerging challenges.

## FRAUD, CYBERSECURITY, AND SUCCESSION PLANNING—IS YOUR ACCOUNTING HOUSE IN ORDER?



Nickie Redick, Director, BKD CPAs & Advisors, discussed several accounting areas that she believes are critical to operating a business successfully. She also reviewed strategies for identifying and responding to fraud. Specifically, she discussed the new revenue recognition standard (RRS) and the new lease standard. Although the new RRS, which became effective on December 15, 2018 for nonpublic companies, requires a significant amount of work, it is likely to

have little, if any, financial impact. The RRS will affect 3 key areas; those include identification of performance obligations, variable consideration (e.g., claims, unpriced change orders), and accounting of uninstalled materials. There is a 5 Step Model for RRS determinations. Those steps include:

- Identify contract and customer
- Identify performance obligations
- Determine transaction price
- Allocate transaction price to performance obligations
- Recognize revenue when (or as) performance obligation is satisfied

The new lease standard became effective December 15, 2018 for public companies and December 15, 2020 for non-public companies. This standard, after nearly a decade in development, requires that leases be recognized as both an asset and a liability. For finance leases, this is not a change, but for operating leases, it is, as previously operating leases were only required to be disclosed.

Redick then provided many examples of how vulnerable companies can be to fraud and discussed strategies to reduce such risk. She noted companies should assume when, not if, they will be attacked given the significant rise in data breaches. Strategies to mitigate risk include:

- Identifying the most sensitive information
- Educating the entire team and developing a response
- Limiting access
- Planning, preventing, and preparing for an attack
- Establishing backups of data

Another way to minimize fraud is to configure work that segregates duties among multiple people. Consideration should also be given to employee circumstances (e.g., unhappy employee, personal issues, etc.). Perhaps surprisingly, the profile of a fraud perpetrator often includes being well-liked by co-workers and long-term tenure. Other more obvious clues include gambling issues, compulsive shopper, etc.

Lastly, Redick discussed the need for succession planning. Despite its importance, only slightly more than one-third of companies have formal succession plans.

## MEETING ADJOURNMENT

John Dyson, the Meeting Chair, thanked the speakers, attendees, and Board and Committee Members for their dedication and efforts to promote the organization's success. He also thanked WWEMA staff for another successful meeting. Dyson noted that it was a bittersweet time in 'passing the gavel' to transition WWEMA's organizational leadership to Mike Dimitriou, President, Water Remediation Technology, LLC and incoming Chairman of the WWEMA Board of Directors for 2020. Dyson will still serve on the Executive Committee as Immediate Past Chair and assist with any transition issues.

At the conclusion of the meeting, Dyson reminded attendees of the upcoming April 29 – May 1, 2020 *Washington Forum* to be held at The Alexandrian, Alexandria, Virginia and encouraged attendance, including bringing other more junior staff to assist with their education and incorporation as the next group of leaders in the drinking water and wastewater industry. The meeting was formally adjourned at 11:30 a.m. on November 8, 2019.





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