A new attitude

To survive in world filled with climate change, water shortages, and limited funding, utilities of the future must change utility culture and take risks, panel says



Stan Meiburg, U.S. Environmental Protection Agency Acting Deputy Administrator, opened the Great Water Cities discussion by sharing the water sector's biggest challenges and what can be done to face them. Oscar & Associates

ot being afraid to take risks in a changing world water was the focus of this year's Great Water Cities panel discussion at WEFTEC* 2015 in Chicago. The discussion was titled, The Impact of Leadership: Culture, Communication, and Community in Great Water Cities.

"We have to take risks," said Lars Schrøder, CEO of Aarhus Water Ltd. (Aarhus, Denmark) and one of the panel members. "We're not good at that. Don't be afraid to make things happen. And don't be afraid to learn that change is ongoing."

How should the water sector approach the future? "It's got to be 'Let's go. Let's do things.' It has to be that type of energy," said Felicia Marcus, another panelist and chairwoman of the California State Water Resources Control Board (SWRCB).

James A. "Tony" Parrott, executive director of the Louisville (Ky.) and Jefferson County (Ky.) Metropolitan Sewer District said that utilities must understand how today's decisions affect future generations. "They get it - millennials and onward. They understand what needs to be done," he said.

Respond to crises

The Great Water Cities panel opened

with remarks by U.S. Environmental Protection Agency (EPA) Acting Deputy Administrator Stan Meiburg, Meiburg discussed the challenges the water sector faces. He said estimates show the water sector will need \$600 billion in infrastructure financing over the next 20

"Deeper droughts, stronger storms, and floods also threaten our health and our community's water infrastructure," Meiburg said. These changing weather patterns will require the water sector to have more financial resiliency. To help, EPA created the Resiliency Finance Center to encourage public-private partnerships and make sure "the money we have is doing all that it should," he said.

But, Meiburg noted, even with new funding avenues, "There is no substitute for honest, clear headed, thoughtful, strategic, local leadership."

SWRCB's Marcus provided an example of this leadership. The ongoing drought in the Western U.S. has prompted the SWRCB to work out strategies to ensure the long-term water supply. She said the board is considering "what needs to happen so our grandchildren can farm and have a happy tomorrow."

Embrace innovative problem solving

To prepare for future challenges will require new technologies and new funding sources. To that end, American Water (Voorhees, N.J.), the largest privately owned water utility in the U.S., invests heavily in technology and focuses on public-private partnerships, according to Susan Story,

"American Water takes very seriously our role and involvement in research," said Story, also a Great Water Cities panelist.

One area of research and development focuses on creating an intelligent water grid similar to those found in the power and natural gas industries. This water grid would include acoustic monitoring to find cracks in water pipes and automatic meter reading/ advanced metering infrastructure to help the utility detect customer water usage.

Another area of research is energywater efficiency, she said. The utility hopes to reduce greenhouse gas emissions 20% by 2017. Story said the utility also is working



The Great Water Cities panelists discussed how the risk-averse nature water and wastewater utilities can be overcome to embrace innovation and evolution. The panelists included discussion moderator, David St. Pierre, executive director of the Metropolitan Water Reclamation District of Greater Chicago; Lars Schrøder, CEO of Aarhus Water Ltd. (Aarhus, Denmark); Susan Story, CEO of American Water (Voorhees, N.J.); Felicia Marcus, chairwoman of the California State Water Resources Control Board; and James Parrott, executive director of the Louisville (Ky.) and Jefferson County (Ky.) Metropolitan Sewer District. Oscar & Associates

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with the city of Chicago to create a 38,000 m³/d (10 mgd) water recycling project at a water resource recovery facility.

Manage water for the future

Too much or too little water causes concerns for the water sector and can affect

The Metropolitan Sewer District (MSD) of Greater Cincinnati embraced innovation to achieve sustainability - both hydraulic and economic, Parrott said. MSD solved a wet weather problem by creating an urban

river corridor using green infrastructure. The corridor will help revitalize the local community, which suffered enormous blight and foreclosures. The project will go into construction sometime next year.

On the other side, Marcus said, SWRCB found new sources of water during persistent drought. SWRCB streamlined the use of recycled water for outdoor implementation. While problematic, the drought has created one benefit, Marcus said: It has put a spotlight on water and more importantly, water reuse.

"Modern youth are not technologyphobes" when it comes to indirect and direct potable resuse, she said. "They grew up knowing that astronauts drink their pee. The younger generation gets it."

Utilities must focus on future generations and customers, Parrott said.

"As utilities of the future, you have to sow the seeds, Parrott said. "You don't see the fruit until 10 to 15 years down the road."

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