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Introduction by Jennifer L. Clancy, Chief Scientist, Environmental Science, Policy & Research Institute

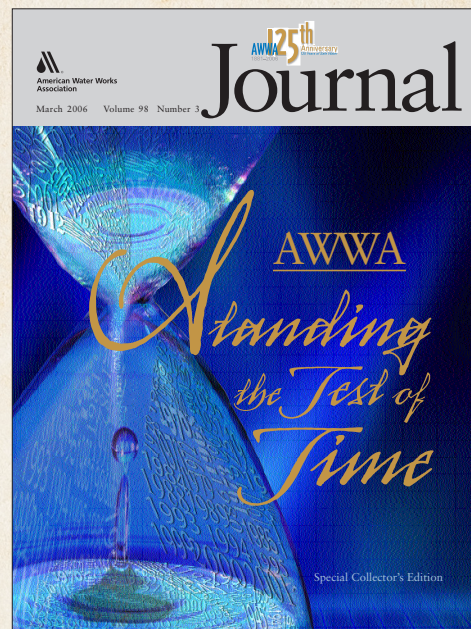
Sixteen years have passed since Marci Hawk Davis highlighted the careers and contributions of 17 women in the water field in the March 2006 issue of *Journal AWWA*. I was one of them, and across this diverse group, our careers spanned a wide range of roles. Since that article appeared, some of the original group have retired, some have switched roles in the water world, and some of us remain in those same roles.

I've seen many changes in our community over the past 34 years. After years of graduate school in both environmental microbiology (MS degree) and medical microbiology (PhD), followed by a spell of stay-at-home mothering (M.O.M.), I began my foray into the drinking water world in the mid-1980s. That coincided with the implementation of the Surface Water Treatment and Total Coliform Rules in the United States, a challenging time for drinking water utilities but an exciting time to begin my career. It was immediately obvious that I was in a man's world, mostly white and a bit aging, but I was excited to be a part of a well-established and vital industry.

From the start, little emphasis was put on recruiting women and minorities into our field; we weren't excluded, but we had to make our own way. In 2014, I was honored to be selected as the first woman to receive the prestigious AWWA A.P. Black Award (*Journal AWWA*, September 2014). Backstage at the opening general session, all but two of us about to go on stage (Jeanne Bailey of Fairfax Water and me) were men. I turned to my friend and colleague, the late Dr. Phil Singer of the University of North Carolina at Chapel Hill—that year's Abel Wolman Award winner—and said jokingly, "Well, Phil, I'm officially in the boys' club now," to which he replied, "You always were." And that was how I had always felt—like I was in the club; it was just that the other members were mostly men.

For women and minorities entering the water industry today, our field has changed dramatically. Women and minorities are actively sought out, not only to increase diversity, but because we have the necessary knowledge, skills, and training. As you read these pages from the past, reflect on your role in the water community. Whether you are LGBTQ, binary or non-, brown, Black, White, or other, the water industry needs you to use your talents to help provide and protect safe drinking water in your community and everywhere else, too. Welcome to the club.

*Journal AWWA* has been published continuously since March 1914. Over the years, it has evolved from a quarterly compilation of research, discussions, and conference proceedings into a monthly source of thought-leadership regarding the sector's innovations, trends, opportunities, and challenges. Pages From the Past provides a glimpse into past perspectives, challenges, and solutions as presented by our predecessors. The article to follow has been condensed and edited for space and clarity. The article was originally published in the March 2006 issue of *Journal - American Water Works Association* (Vol. 98, No. 3, pp. 209–232).



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## Women and Water: Making Waves in the Industry

MARCI HAWK DAVIS

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**F**or this article, more than a dozen women shared their stories—how they found a place in the industry, their successes and challenges, the people who helped them, and the hopes they have for the future. They represent a cross-section of women in the industry, but the sampling is by no means intended to be exhaustive. Thousands of women make contributions to the industry every day and bring the same joy and passion to it.

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### Jennifer Clancy



**J**ennifer Clancy is an internationally known microbiologist who also runs her own business, Clancy Environmental Consultants. Science has always interested Clancy, and she says it was her mother who shaped her the most. “She told me that I was smart and needed to apply myself. She expected us to go to college. I come from a poor family, and she understood that education was the way to a better life.” Not only was Clancy the first one in her family to graduate from high school, she also went on to earn a master’s and a doctorate in microbiology. Between those two degrees, Clancy became a full-time mom for a few years. “I had people tell me, ‘If you leave the lab, you’re never going to have a career,’ but I wanted to be home

with my son and daughter. That’s one of the things I try to tell other women coming up now—to not be afraid to take time off or to balance their lives with part-time work because you’ll never have that time with your children again.”

Although Clancy recognizes that the water industry is still dominated by men, she’s never let that get in her way or seen it as an obstacle. “I’ve always tried to put gender aside, so it’s been a nonissue with me. Even though I think the industry needs to do more, I have seen it change tremendously just in the time I’ve been in it, with more outreach to women and minorities. And that’s a good thing, because organizations that don’t reach out are going to get left behind.”

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### Artis Dawson



**W**ith an undergraduate degree in criminal justice from the University of California, Artis Dawson never really thought about the water industry as a career. She was a probation officer for a brief period and then spent several years as a staffer and then director of a joint powers agency,

which funded criminal justice-related programs in the Oakland area. She saw a posting for an executive assistant program at East Bay Municipal Utility District (EBMUD) and thought it sounded interesting. That was 24 years ago; now she is EBMUD’s director of administration, overseeing

approximately 250 employees. Along the way, she earned a master's degree in public administration.

Though she's fascinated with the water industry, Dawson sees the need for improvement. "Demographics have changed, and we need to bring in more ethnic diversity at all levels—in addition to more women. One strategy is for the

industry to insert itself more creatively into various community activities to show its relevance and available opportunities. To attract a more diverse workforce, the industry should be more aggressive and inclusive in its efforts. It must also recognize these changes will take a sustained commitment." ♦

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## Becky Lamoreaux



**B**ecky Lamoreaux went from buying real estate for projects at EBMUD in Oakland, Calif., to supervising more than 250 people as manager of customer and community services. Organizational changes pulled many areas under that title, including the call center, meter-reading, field services, credit and collections, corporate mailroom, remittance processing, and the customer information system database. After 25 years on the job, it's the focus on customers that colors Lamoreaux's view of the water industry. She says in addition to building customer confidence in water quality, the utility also must build customer confidence in its operation as an efficient business. "The public takes safe, clean drinking water for granted. Customers today are looking at the amount of their water bill and how conveniently they can interact with us, whether it's how they pay their bill or how a field crew responds to them." She says customers

are beginning to recognize the professionalism she's promoting.

Having solid mentors on the job has helped her with important professional development. She credits several EBMUD managers for trusting her and instilling positive work values in her. Lamoreaux says she doubts she'll ever retire and wants to spend the remaining years of her career bringing bright, talented young people to the industry, which must change to keep up. "Young people now are going to expect more flexibility from employers and want a better balance in their lives. We have to be able to meet that challenge." In addition to changing internal demands, she says agencies need to look past the day-to-day contradictions in customer behavior. "Water is mandatory for life, and we have to be creative in the ways we meet customers' needs by making sure that water is available for people in all economic circumstances." ♦

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## Milbree Lankford



**W**hen Milbree Lankford became general counsel for the Douglasville–Douglas County Water and Sewer Authority in 1999, she

combined her interests in ways she never expected. "It really brought back my love for science. I finally realized that this is why I went to

law school. During my five years in private practice as a litigator, it seemed as if no one was ever really happy, no matter the outcome. But now I view the community as my client. Douglas County is rapidly growing, and I get to be a part of making things work as well as possible for everyone involved. I feel as if I owe a duty not only to my employer—my actual client—but to the environment and the community. No one wins if a creek gets polluted or silted up.”

This optimistic attitude has helped numerous times as she encounters people who aren’t quite sure what to make of a woman who’s a lawyer but sometimes talks like an engineer. “Even after seven years, some people think

it’s odd that I’m here. They just don’t expect a Southern woman to talk about wastewater and stormwater.” However, she adds, because of all the opportunities given to her, many people now recognize her skill and expertise.

As the mother of six- and eight-year-old sons, she says balancing it all is a “24/7+ job.” Fortunately, her husband makes it a team effort, and it doesn’t hurt that in sprawling metro Atlanta, everything in her life is in one place. “It’s a luxury to work right in the community where I live and where I was raised. Although a job in private practice may be better compensated, my time with my family has a value that money can’t replace.” ♦

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## Carrie Lewis



**W**hen Carrie Lewis joined Milwaukee, Wis., Water Works (MWW) in 1995 as the water quality manager, she says there was no better time or place for that kind of job. It was shortly after the *Cryptosporidium* outbreak that affected hundreds of thousands of people. “The outbreak changed everything at utilities in America. It made us realize that we were in the business of public health. Before that we thought it was just providing water and putting out fires.” After about two years on the job, the superintendent of MWW retired. Many encouraged Lewis to apply for the top job, but she wasn’t sure if she wanted it. That is until she learned that the other candidate for the job had never been to a water treatment plant until the interview. “At that point I wholeheartedly went after the job.” Nearly 10 years later, she still has it.

Being a woman in the industry hasn’t really affected Lewis’ outlook or her career. “I’m pretty much gender-blind. The way I’ve been treated was based more on my ideas.” It’s also helped that her parents always encouraged her to be the best in whatever she did. That doesn’t mean it’s always been easy. When she first moved to Milwaukee, Lewis says it was a difficult decision for her Canadian-born husband, Terence Hampson, to follow. He stayed in Calgary for a few months along with their two sons, ages 2 and 4 at the time. Fast-forward 10 years, and they’re a typical family. “My husband’s extremely supportive of what I do, and that’s important. The boys don’t think there’s anything unusual about mom running a water utility.” ♦

## Katie McCain



**L**ong-time member and currently immediate past-president of AWWA, Katie McCain says she actually kind of stumbled into the water business. She started out with the city of Dallas as a draftsman, ultimately ending up in the water department. McCain says she enjoyed drafting while in school and also liked being the only girl doing something.

McCain says not being an engineer sometimes proved a challenge professionally but never got

in the way of her volunteer work with AWWA. A friend once described her as the “poster child for upward mobility by association.” McCain parlayed those activities into the work she did with the city and then in the consulting world. But when asked how she balanced family life with her career and volunteer activities, McCain candidly admits “not well,” but adds “I am blessed to have a husband who takes care of our family.” Plus, she’s proud of her 33-year-old son. ♦

## Sue McCormick



**D**ivisional consolidation in the Michigan city of Ann Arbor’s government in 2002 made Sue McCormick the public service administrator. As a result, she now spends only about a third of her time on water. Get her talking though, and it’s easy to see it’s her main passion. “We produce the only product in municipal services that people ingest. We have a higher degree of responsibility in helping our communities understand what we do, how we do it, and what’s involved. We have to share the risks and costs because the community is not only the ratepayer but also the shareholder.”

McCormick experienced a watershed moment 15 years ago when she attended a school for managing organizational change featuring many forward thinkers in that area. She was impressed by the concept that “people support what they create” and has used it as a guiding principle.

A strong support system at home has also helped. Between work and McCormick’s AWWA activities she logged many hours away from home. She recalls when her then-7-year-old son asked if she liked what she was doing better than being home with him. Before she could answer, her 11-year-old piped up, “Mom doesn’t just have a job, she has a career.” She credits her husband and a hired “grandmother” who watched her children when they were young for giving her that latitude.

Though she has a background in science, McCormick is pleased to see how the industry has opened to less technical ideas, which have created opportunities for people with a variety of skill sets. “We have to have a more businesslike mentality. Think about communications and organizational development—these areas are much more important now.” ♦

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## Pat Mulroy



Just as many water bodies meander before reaching their final destination, Pat Mulroy's journey into the industry followed a circuitous route. After finishing at the University of Nevada, Las Vegas, she joined the county manager's office in Clark County, Nev., as part of the legislative team. After seven years, she became deputy general manager of administration with the Las Vegas Valley Water District (LVVWD) in 1985. This wasn't standard practice for LVVWD, which Mulroy says typically hired engineers for leadership positions, but she was grounded in the politics of southern Nevada.

"Nevada was quickly using up its allocation of the Colorado River," Mulroy says. "Working out the debate between urban and agricultural uses challenged the precepts of water law, and we were forced to work out some very complex issues." It sparked a passion for water in Mulroy and led to her ascension as general manager of LVVWD in 1989 and to another general manager title in 1993. This time she took leadership of the Southern Nevada Water Authority, a newly formed

consortium of all the water/wastewater agencies in southern Nevada bound together by their allocations from the Colorado River.

Mulroy says because of her political background, she looks at the issues differently. To her, water is not just a resource but a major factor in people's lives. "I look at the effects that decisions about water create and the social issues that come from that." In a part of the country where the industry is especially male-dominated, Mulroy was only one of two women working on water resource issues. "They didn't know what to do with me. I hadn't come through the normal process, and no one had made their mark on me. My appearance on the water scene in the West was somewhat disconcerting, especially on the river. But I wasn't intimidated, and they found out I was just as tough as they were." In her opinion, many of the progressive things that have happened on the Colorado River came about because of female influence—not just hers, but also Rita Maguire of the Arizona Department of Water Resources and Maureen Stapleton of the San Diego County Water Authority. ♦

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## Margie Nellor



After 28 years, Margie Nellor retired last May from the Los Angeles County Sanitation Districts (LACSD) and moved back home to Austin. But she hasn't retired from the industry, just slowed down a bit—working part-time at her own business, Nellor Environmental Associates.

Nellor doesn't recall facing any major obstacles because she's female, but she does remember being the only woman in many engineering

classes. She thinks women sometimes put stress on themselves, like she did. "I wanted to prove that I could do it better than anyone else." She says it helped that when she finished school, she went to a pretty progressive agency. "The staff [at LACSD] was really supportive of women. They were really great to me when I had kids. I was able to do time-sharing with my husband [also an LACSD employee] so we could take care of our

son when he was a newborn—and this was back in the early '80s.”

Nellor also found a good mentor there. “Bob Miele advised me along the way on how to work with certain people and encouraged me to broaden my experience through other organizations.” Female role models weren’t abundant when Nellor started in the industry, but she’s seen that change over the years. Still, she acknowledges more needs to be done. That’s

why she’s involved with the UT Engineering Foundation Advisory Council working to bring more diversity into the College of Engineering. Once women get into the industry, Nellor says, it’s the outside organizations that really further careers. “You get to meet all kinds of people, network, go to conferences, and even work on policy issues at a national level. If women don’t take these kinds of opportunities, they’re going to miss out.” ♦

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## Chris Owen



**F**or Chris Owen, desalination isn’t just an industry buzzword, it’s a huge part of her life. As water quality assurance officer for wholesaler Tampa Bay Water (TBW), which ultimately provides water for 2.5 million people, she often finds herself at the agency’s 25-mgd desal plant, the largest one in North America. Owen also oversees the quality of water blended from desal water, groundwater, and surface sources, which she admits could lead to chemistry issues. In addition, she serves as a liaison with the local governments who buy from TBW; works with regulatory agencies on the local, state, and federal levels; participates in research projects dealing with water quality, health effects, and treatment issues; and

coordinates AwwaRF projects. In her spare time, she’s also involved in a number of AWWA committees and workgroups.

Though Owen says the water industry seems to focus more on engineers, she thinks she is lucky to be in a generation that saw gender roadblocks fall away. Not that she doesn’t have some interesting anecdotes. She humorously recalls her days working with the city overseeing field crews. “I got a call from a customer asking to talk to the guy in charge of the crews. I said you are talking to the guy, and I heard him yell ‘Hey, it’s a broad in charge.’” There have been a few other incidents, but Owen feels for the most part this attitude is rare in the industry and chalks such things up to poor judgment. ♦

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## Jennifer Persike



**J**ennifer Persike’s background in journalism and government form the ideal combination for her job as the director of strategic coordination and public affairs for the Association of California

Water Agencies (ACWA). Though it works closely with AWWA and the Water Environment Federation, it’s independent of those organizations and is one the oldest water coalitions in the nation



(founded in 1910). It's a far-reaching charge, and Persike is right in the middle of it. "You feel like what you're doing is critical. There aren't a lot of issues more important than water."

She says it's inspiring to her to see more women involved in leadership in the agencies she works with, especially since that wasn't the case when Persike started. Even though ACWA has had only two female presidents in its history, they have also served as a source of encouragement. Persike says she's fortunate as well to have worked with supportive boards through the years and notes that mentors are important to anyone building a career in an industry. "I was fortunate to work under two executive directors

who were both leaders and have taught me and allowed me to grow."

As the mother of a 9-year-old daughter, she also seeks to find a balance to it all. "It doesn't matter what industry you're in. If you're a working mom, it's tough." She says technology, along with a friendly work environment, have helped maximize her parenting time. As a manager of seven employees, she tries to extend that flexibility to her staff. She's also trying to help her daughter gain an appreciation for the issues surrounding water. "She seems to understand ideas like not wasting water and why it's so important. I want her to believe in it, and if a career flowed out of that in the future, that would be great." ♦

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## Joan Rose



**J**oan Rose, a tenured professor at Michigan State University, holds the Homer Nowlin Chair in Water Research and is director of the Center for Water Sciences. She is actively involved in research, has authored more than 200 papers, teaches at the graduate level, and participates in AWWA. She began her master's by studying environmental microbiology.

Rose sees two women as instrumental in shaping her career. She credits Dr. Martha Gilliam, for whom she worked at a US Department of Agriculture lab in Tucson, Ariz., for starting her down her career path. She also remembers the high standards set by Dr. Martha Christiansen when she was studying at the University of Wyoming. "I just remember being nervous because I wanted to live up to her expectations." Family life sometimes proved more challenging. "There were times when I felt as if I neglected my family, neglected my kids, neglected my work. But I think you have to have

a support system in place and figure out what's right for you. For the most part, I'm just glad I was young because trying to balance everything took a lot of energy. I'm fortunate—when my kids were young, I combined work and travel with my family; now that they are adults, we still have adventures."

When she first started in the water industry, Rose says she felt a little like she was trying to get in the boys' club. She says luckily there were other excellent women entering the field, and it's gotten better through the years. Rose has been particularly active at helping to recruit women into engineering and water sciences and improving women's pay at the university. Even at the international level she sees diversity clearly as a global issue. After 20 some years, she says she really feels as if she's part of the water industry. "I think it's a wonderful area to work in, and there are fabulous people on the wastewater and drinking water side. It's great to be part of this family." ♦

## Lynn Smarr



**L**ynn Smarr, the supervising engineer with the Gwinnett, Ga., County Department of Public Utilities (DPU) in the metro Atlanta area, first applied for a drafting job with the county, but because of her degree in civil engineering she was told to reapply for an office engineer position. For the first few years, the bulk of her work consisted of utility relocation on Department of Transportation projects. During this time, she says, “I listened a lot and learned a lot. It gave me time to figure out how to respond. Often, I was the only woman in a meeting. So even though I didn’t say much those first few years, I absorbed a lot of what was going on.” She adds that people who know her now might find it hard to believe that she didn’t speak up more.

Smarr’s also grateful to her parents for their support and encouragement through the years. She says they always knew she’d go into engineering but didn’t expect her to end up in water. It’s somewhat of a family affair, though. Smarr’s husband Keith also works for DPU in the collections division, and their self-described “Brady bunch” kids are well aware of what mom and dad do—so much so that the eldest son, Kleve, now works as a wastewater operator for DPU. It wasn’t always easy when they were growing up, though. “There were times when one of us would get called out in the middle of the night for a main break, and sometimes I thought I wasn’t a good mother for putting my job first, but the girls never complained about it.” ♦

## Charlotte Smith



**F**or the past 13 years, Charlotte Smith has been providing consulting services to drinking water utilities throughout the United States and Canada. With her current success, it’s hard to imagine Smith’s meager beginnings. But she says her mother’s encouragement and perspective made all the difference, and she is quick to quote some of her mother’s favorite phrases, such as “be happy for what you have, most people in the world struggle just to survive” and “get all the education you can, no one can ever take that away from you,” and even “aim high, you’re bound to get half way.”

Perhaps one of her best AWWA experiences, though, was finding her husband Jim Smith, who works at EBMUD as a water treatment superintendent. The two originally met when Smith gave

a tour of the demo plant in New York in 1990. They then reconnected by chance at AWWA’s 1991 Annual Conference. About a week later, he proposed, and the Smiths couldn’t be happier. She says he was supportive when she became a consultant and also when she wanted to go back to school. “It’s wonderful having my husband and best friend in the same field.”

It’s also through AWWA that Smith has seen the changes in the industry. When she joined more than 20 years ago, she remembers often being the only woman on a committee. “The improvement in diversity is unbelievable, especially when it comes to gender. But it would be good to get more minority participation. We have a ways to go, but the change is really encouraging.” ♦

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## Susan Teefy



**S**usan Teefy now works as a principal engineer with the firm Water Quality and Treatment Solutions Inc., where she helps utilities, mostly in California, with water quality and compliance issues. Previously she worked for EBMUD and Alameda County Water District, also in the Golden State. She's also a licensed operator. "When I was at Alameda, the joke was that I was the translator between the operators and engineers." Now that she's a consultant, Teefy's clients appreciate those skills.

Looking back through the years, Teefy says she never felt as if she faced hurdles as a woman in the industry. She calls her gender an advantage because people remembered her. But as with many women, balancing family and professional life was trickier. "It's been the biggest influence on my career."

Having kids made me change things. I would have never admitted that when I was younger. I used to think that people who couldn't balance career and family just didn't have it together." In 2000, while still at Alameda, she scaled back from managing the production staff to working part-time with a focus on technical issues. "I have a finite amount of energy, and I didn't want it to be all about work."

With two sons and two daughters ranging in age from 6 to 12, Teefy works about 30 hours a week. She's trying to get her kids interested in the industry, and if their attentions turn elsewhere, she's okay with that. "But I do think it's important for women to get involved. There are a lot of opportunities for them. I think we approach problems differently than men do, and that's beneficial for this field." ♦

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## Amy Vickers



**M**ost new homes and businesses feature low-flow toilets and other fixtures, thanks in part to ardent water conservationist Amy Vickers. Now president of her own firm, Amy Vickers & Associates Inc. in Amherst, Mass., she wrote the amendment to the state's plumbing code requiring 1.6-gal toilets, making it the first state in the nation to have such a rule.

Vickers says a lot of her initiative comes from her mother, who encouraged her to chart her own course in life. "The women's movement also made a big impression. Political events during the 1970s showed me that women finally had a place at the table, and I was energized by that." Her boss in New York, Gary Ott, was another strong influence. "He was always opening doors

for me. Gary realized that women weren't always afforded field experience, and he made sure I got that. It was that hands-on experience that gave me the confidence to tackle graduate school and go into engineering."

She sees the strides that women have made in the industry but says there is still sometimes a sense of isolation. To Vickers, however, these kinds of obstacles aren't insurmountable. Vickers has been very active in AWWA and sees it as the perfect place to learn team-building and leadership skills. Vickers says regardless of what area someone goes into in the water industry, the public service opportunities are unrivaled. "I'm fortunate that I've had so many interesting opportunities to contribute to an issue that I care so much about." ♦

## Sue Vance



**S**ue Vance became the director of Butler County (Ohio) Department of Environmental Services (BCDES) some 15 years after she began at BCDES as an intern, while still a grad student in environmental studies. Having served as interim director for two months, Vance says she was flattered when the board of county commissioners offered to make it permanent. “I feel as if I was in the right place at the right time, so I thought—why not? It’s best to make hay while the sun shines.”

Vance credits her parents for giving her a good moral and ethical foundation. Plus she’s received fantastic guidance from co-workers. She recalls the former chief engineer telling her “it’s nice to be important, but it’s also important to be nice.” She says that’s the rule she tries to live by. Even though she’s encountered a few people through the years

who didn’t take her seriously or even mistook her for a secretary, for the most part being a woman in the industry has been a nonissue.

As if running a utility weren’t enough, Vance is also the mother to four girls and a boy ranging in age from 3 to 12. “We keep a really regimented schedule. Any mother of five would have to. Fortunately, I have a wonderful husband and great support network, my parents, and a part-time nanny.” All her kids have toured BCDES’ wastewater treatment plants and are itching to climb a water tower. They won’t get to anytime soon, but Vance says, “I would love for them to follow in my footsteps in environmental science.” 💧

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