

Make Space for Women Engineers and Leaders

ANDREA DUMONT, P.E., M.ASCE, is a self-proclaimed workaholic. By day, she is a project manager who specializes in groundwater, dams, and hydraulics. She is currently serving as an assistant project manager for a 40,000 ac-ft reservoir in south Texas while also acting as a liaison between technical leads and a regional supervisor at Jacobs. On weekends, she maintains a blog aimed at convincing 18- to 25-year-old women that water resources engineering is a great job for them to pursue (andromedadumont.com). In any spare time, she serves on several committees of ASCE and its Environmental and Water Resources Institute. DuMont was recently named a project manager after making the case to her superiors that she deserved the promotion. She recommends younger engineers, especially women, speak out and take the reins of their own careers.



Andrea DuMont, P.E., M.ASCE

COMPANY
Jacobs (formerly CH2M),
Austin, Texas, office

CURRENT TITLE
Project Manager I

PREVIOUS TITLE
Water Resources Engineer

How did you achieve the title change to Project Manager I?

I've had the opportunity to work on several high-visibility, complex projects, most recently an emergency stormwater project in New Orleans after the flooding last summer, for which I was the deputy program manager. That made it possible for me to say, 'I have these skills now, and I think I would be really good as a project manager.' So I drafted a couple of pages stating why I thought I should be a project manager, including the fact that I had already helped to manage multimillion-dollar projects, and I gave it to some people.

I am a big advocate for screaming for help when you need it.

One day I was out to lunch with a regional lead, and I asked if he had gotten my email on why I should be a project manager. He said he had, and he ultimately pushed it through, even though he was not my direct supervisor.

With my promotion, I am now on a track to a career in management. I asked for it—and I got it!

In addition to my project manager duties, I ended up with a sweet role, working directly with Chrissy Thom, Jacobs's U.S. South solutions and technology manager. She asked me to help by being a liaison between her and the regional technology leaders in the different disciplines. I help by putting together presentations and initiatives for all the tech leaders.

What are the chief skills and abilities that you developed in your previous position that qualified you for this position?

My skills are always evolving. I'll pick a project, work on it, and build my technical credibility. That's a big thing for me right now because even though I am doing these management tasks, I still want to build my technical background.

I also read many books to figure out how to get better at communicating with people in their own language. I want to know how you speak the lingo of hydrology to a hydrologist, for example, but also how to speak to clients. When I was in New Orleans, we were making presentations to the mayor, who of course is not an engineer. So I wanted to know how we could explain this really complicated system to the mayor. We have an amazing team of graphics people and technical writers, and I watched how they explained things and tried to emulate that.

Why is it important for you to reach out to younger women who may be interested in engineering?

Young girls need role models. Sally Ride, the first American woman astronaut, has this great quote: 'You can't be what you can't see.' It's hard to get into engineering if you can't see yourself in it.

So I think a lot about how I can explain my job to them. It's consulting engineering, and I may have 12 projects going on at once for a variety of clients. And I have a toolbox of skills I use—sometimes

I'm doing GIS [geographic information system] work, some days I'm layering curves on a graph, some days I'm writing reports. How do I explain this to somebody so they might want to go into engineering? I think my job is cool; how do I get them to think this job is cool? I want women to see a place for themselves in the industry.

What personal traits or characteristics do you believe helped you win this new position?

My personality is very much on the borderline between introvert and extrovert. If I'm in the introvert phase, I'm setting up in a coffee shop to work on the weekend or sitting down to knock out a report or other deliverable by myself. But at other times I need to go into the office and talk to

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others, maybe organize a get-together for the team, or discuss an idea. And I can do both.

There is a lot of flexibility at Jacobs. I can work from my home, from an office, or from the jobsite. I'm never in the same place for more than a few days. I'd like to see more of that in the industry, as a millennial myself and with Generation Z now coming into the workplace. We're used to being connected all the time. I would never go on vacation and turn off my work mail, for example. I stay connected.

I'm a workaholic. I think it's fun, so I don't consider it a problem.

How did your education help you prepare for this position?

I thought I wanted to be a mechanical engineer at first, but after my first couple of classes [at Missouri University of Science and Technology], I realized I wanted to be in a space that was more friendly to women. I had always enjoyed geology and rocks, so I talked with the professors in geological engineering. Eventually I switched, and that is what my undergraduate degree is in, geology, with a minor in global studies. I worked with professor Curt Elmore, who was doing groundwater projects, and I got to work with him on a groundwater project in Guatemala.

Then I did an internship doing environmental engineering with Golder Associates for six months. And when I was through, I reached out to Dr. Elmore, and he hooked me up with another professor, Dr. Gretchen Miller, who was at Texas A&M. She was doing projects involving groundwater in Costa Rica, so it was a perfect fit. I went to Texas A&M for my master's degree in water resources, and I ended up doing my thesis on groundwater and surface water interactions using isotope tracers in rain forests in Costa Rica.

Then an alumnus of Texas A&M who worked in groundwater at CH2M in Austin [Texas] reached out to Dr. Miller to ask if she had any graduates

looking for a job. She recommended me, and it was perfect. I got to work with a top groundwater specialist and live in Austin.

What role have mentors, advisers, or your network played in your achievement?

Almost everybody in my family is an engineer—my dad is, my brother is, and there is a train in the Indiana Transportation Museum that my great-grandfather designed the chassis for, Train 312. So I knew about engineering.

And I've been lucky to have had people advocating for me. In Austin, I worked for Heather Harris, a vice president, and just after she became my supervisor, she let management know that all of her people were being underpaid and needed equity raises. She taught me to advocate for myself. It's empowering.

On the New Orleans project, I worked for Amanda Gaze, a geological specialist and project manager; she was one of the most amazing leaders I'd ever seen. Watching her, I learned how she really cared for the team and as a result, the team would do anything for her.

What advice would you give to other young women engineers who would seek a position similar to yours?

You hear that the squeaky wheel gets the grease; that's true, but you have to tell everybody. Be loud and out there, because people have so much going on themselves that they may not realize that they are in a good position to promote you or set you up for success.

Also, women should negotiate just like the men do. Some of the younger women I work with tend to ask permission to do things. They're worried about wasting time or money. But the guys don't do that; they just do it. The guys are going for it, being loud and earning their stripes.

I read that men apply for jobs when they have 60 percent of the skills that

are listed on the job description, but women won't apply unless they have 100 percent.

What do you hope to accomplish in this new position?

I want to continue to find projects that I am excited about and that I feel Jacobs has a technological advantage in or that we can try a new technology with. I want to work on massive projects that have cutting-edge technologies and agile teams and be able to support the people who might one day work under me. I'm not a direct supervisor for anyone yet, but I do work with younger engineers, so I'm trying to figure out what they are good at and play to their strengths. Being an engineer is a little like being an anthropologist. You have to figure out what everyone is thinking.

What types of positions do you see yourself moving toward over the next few years?

I made a flowchart on that last weekend!

A big thing right now is to continue doing this technical stuff, managing a team, managing projects, trying to be a superstar, and working on my blog. With the mentorships I have, I hope to get to work on large, complex, highly visible projects.

But ultimately I want to travel and try new positions that allow me to find my personal boundaries. I want to see how I function within something that is really challenging.

And while I do want to seek promotions, I am also okay with a lateral shift—walking across the scaffolding and not just up the ladder. Either way, you can't go forward without taking a step. —LAURIE A. SHUSTER

Are you a younger member who has recently taken the next step in your career? We'd like to hear from you. Email cemag@asce.org using the subject line "Next Step."