

STEM SPOTLIGHT

Brian M. Hall

Hydraulic Engineer
U.S. Army Corps of Engineers

Bachelor of Science in Environmental Engineering
Master of Engineering in Environmental Engineering Administration
Rensselaer Polytechnic Institute



Q How did you select your college major?

A I selected my major by combining two areas of interest in my life, the environment and engineering. I have always had a passion for the environment and outdoors, whether it was in the form of family camping trips or backpacking treks to remote locations while I was in the Boy Scouts. During my middle school and high school years I gravitated toward science and math classes. In my junior and senior years of high school I took a few general engineering courses and realized how science and math are incorporated into nearly every aspect of life.

Q What was the biggest influence in your selection of major/ career?

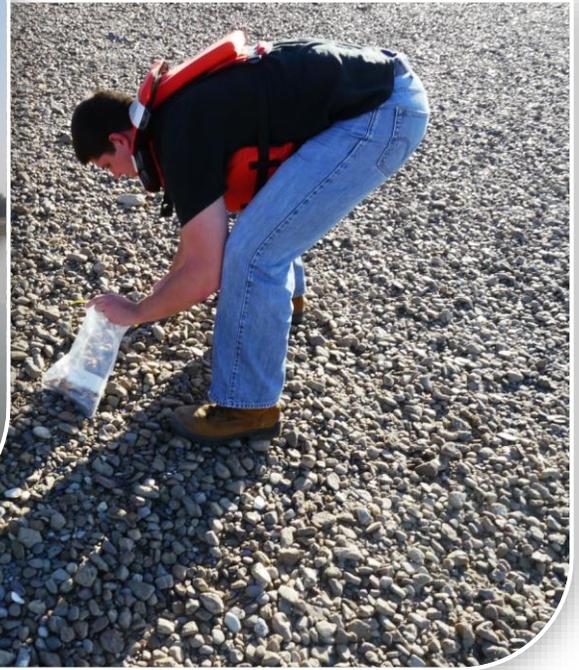
A During my college studies I truly gained an appreciation as to how critical and powerful water is in the world. I took several courses throughout my college career that specialized in water resources engineering which has led me to a career as a hydraulic engineer.

Q What is your favorite aspect of your job?

A Project diversity. I have been fortunate to work on projects all over the country. These projects have ranged from the Mississippi River to rivers in the northeast such as the Delaware River and the Susquehanna River.

Q How do you/your company make a positive impact on society/our community?

A Water Navigation and Flood Risk Management are two of the high priority Civil Works Missions for the U.S. Army Corps of Engineers. As a team member of the Memphis District Hydraulics and Hydrology Branch I am working on navigation and flood risk management projects on a daily basis. Examples of these projects include monitoring river forecasts, dam breach studies, and the modeling of water through natural rivers.



Q What's the most interesting thing you have been able to do in your professional career?

A Working on the Mississippi River has been an incredible experience, from collecting field data to creating a numerical model on the computer. I have gained an appreciation for the power and size of the Mississippi River.

Q What makes you get up each morning excited about your profession?

A There are two primary reasons. The first reason is that the work I do has a direct impact on society, both navigation and flood risk management are extremely important. The second reason is that I have a strong desire to grow and expand my knowledge. Projects are constantly presenting different challenges that require critical thinking and problem solving skills.

Q How does your career incorporate STEM (Science, Technology, Engineering, and Math)?

A All four help define our environment and society. I use all on daily basis to perform calculations and complete projects in the field of water resource engineering.

Q What advice would you share with K-12 students that are considering your profession?

A Work hard and challenge yourself. Take classes that require you to think and expand your knowledge level.