Water power—

bringing streams together to make a mighty river

In Cambodia, UNC students and faculty members show people who've never had clean water how to use ceramic filters in their homes. The lifesaving potential is immense and immediate.

Across the United States, municipalities use UNC-developed techniques to identify, remove and preclude the formation of "disinfection byproducts" from drinking water. These contaminants are created when chlorine and other chemicals used to purify drinking water mix with substances in water.

In eastern North Carolina, cities and towns have water-sharing and other water resource management agreements, developed with the assistance of UNC water experts, which make the most of scarce water resources and limited public budgets. The agreements are in effect not only in rural, "down-east" communities but also in the Research Triangle area, home to some of the state's largest cities.

Since the 1920s, when H.G. Baity began teaching sanitary engineering at the University of North Carolina, UNC has been a leader where water and health intersect. From locating the purest sources to developing technologies that keep drinking water safe, UNC faculty members and students are innovators.

Into this powerhouse now comes Jamie Bartram, PhD. For more than 30 years, Bartram has analyzed and advanced connections between the environment and health around the world. He comes to UNC from the World Health Organization, where he was coordinator for assessing and managing environmental risks to health.

In July 2009, he joined the environmental sciences and engineering faculty at the UNC Gillings School of Global Public Health, where his mission, through the establishment of a new Water Institute at UNC, is to bring together the many streams of water expertise within the School and university and incorporate them into one powerful river of research, teaching and service with partners throughout the state, nation and world.

"This School has an amazing track record of success at the junction between public health and water and sanitation," Bartram said. "We're at a point now where drawing together and focusing our strengths with those of our partners will enable us to make an even greater impact. The complex problems of today and tomorrow demand interdisciplinary responses. Our vision is to break the boundaries that constrain problem-solving by bringing together disciplines and sectors to confront some of humankind's most critical challenges, whether at the local, national or global level."

Philip Singer, PhD, UNC's Dan Okun Distinguished Professor of Environmental Engineering, has contributed greatly to the strength of UNC's reputation in water research. In 2006, he received the National Water Research Institute's acclaimed Clarke Prize for excellence.

"UNC has a world-class reputation in water resources, drinking water research and sanitation," Singer said. "We have a lot of students and faculty doing work on a variety of subjects involving drinking water and public health, but it's not a cohesive effort. If we can bring everybody together under a single umbrella, we'll be more effective in our efforts, generating more research funding and providing more valuable outreach."

Bartram, Singer said, is the right person to coordinate and focus such efforts.

"Jamie is an exceptional individual," Singer said. "He's known by almost everybody in the world in the water and sanitation field. He's creative, he's thoughtful, he's a visionary. And at the same time, he's very down-to-earth and likeable. I'm excited about what the future holds for our School and our University." ■

–Ramona DuBose

UNIVERSITY OF SURREY

"The complex problems of today and tomorrow demand interdisciplinary responses," says Dr. Jamie Bartram.