

FOR IMMEDIATE RELEASE:

Pure Water for the World Participates in the 2014 Water and Health Conference at UNC

Rutland, VT - November 5, 2014 – Pure Water for the World recently participated in the 2014 Water and Health Conference organized by The Water Institute at UNC. This year's conference, *Where Science Meets Policy*, focused on considering drinking water supply, sanitation, hygiene and water resources in both the developing and developed worlds with a strong public health emphasis.

A 501(c)(3) organization, Pure Water for the World's mission is to improve the health of children, families and communities in the developing world by providing them with sustainable water solutions, sanitation and hygiene education. The organization participated in two different sessions during the conference.

Maria Regina Inestroza, Honduras Country Director for Pure Water for the World, co-presented on the topic of carbon credit offsetting with regard to water filters in homes. Pure Water is currently participating in a carbon credit offset program with TripleQuest, a manufacturer of plastic bio-sand filters. When a family receives a bio-sand filter, they no longer need to boil gallons of water each day. Typically, wood and charcoal are the fuels of choice, as they are most readily available. When people no longer burn fuel, there is a reduction in the carbon dioxide being emitted into the air. Each filter can displace 6-10 tons of CO₂ per filter per year.

“Quantifying and verifying the carbon reductions associated with Pure Water's projects, and being able to bring them to market, is an excellent way to bring funding to these projects. Our clients are enthusiastic about being able buy carbon offsets and support new clean water projects,” said Kirsten McKnight, Native Energy's Water Project Lead.

“We view carbon financing as a mechanism to fund projects that generate public good and support the efforts to bring vital safe water and hygiene solutions to those who need it most,” states Carolyn Crowley Meub, Executive Director of Pure Water for the World.

Pure Water for the World also participated in another session to share the findings from a recent field test study using the emerging technology of membrane filtration systems. Anna Murray, from Tufts University, presented the findings of fouling in hollow membrane micro filters used for household water treatment in Honduras. Ms. Murray's research was supported by the

University of Maine and Pure Water for the World. The study was based on fieldwork conducted in Honduras by Pure Water's project coordinator, Mario Goeb.

Pure Water for the World was given 200 membrane filtration systems for testing purposes. Systems were installed in homes in the Trojes region. As part of Pure Water's regular business practices, monitoring and follow up was conducted among the households receiving the systems.

After 23 months, Pure Water for the World found that some of the filters had increased turbidity and lower bacterial removal. Six of the poorly performing filters were sent for laboratory examination, at the University of Maine and Tufts University, to determine why their performance had declined. Further testing resulted in Pure Water replacing all 200 membrane filters with bio-sand filters.

The conclusion of the study was that further research of the **effectiveness of membrane filters for in-home use** is recommended, including: investigating the extent of membrane fouling and bacterial growth within deployed filters, characterizing the impact of source water quality on filter performance, establishing a cleaning regimen to better manage fouling, and developing an end-of-life indicator and appropriate filter lifespan.

Daniele Lantagne, Usen Family Career Development Assistant Professor, Tufts University, shares, "It can be very difficult for organizations to decide which of the many household water treatment products available are appropriate to distribute in the communities they are working within; as factors such as cost, ease-of-use, cultural acceptability, maintenance requirements, training requirements, appropriateness of product to work with local water quality conditions, and distribution channels all impact product effectiveness at the household level. It is critical that accurate and unbiased information about the areas where products are successful - or are not successful - is provided to organizational decision-makers. In our work, we found that the **membrane filters** installed by Pure Water for the World in Honduras fouled - and stopped providing safe water - well before the manufacture-specified filter lifespan of 10 years. Further research is needed to understand an appropriate lifespan for these filters, based on influent water quality characteristics, in developing country contexts."

Meub echoed Dr. Lantagne's comments. "Pure Water for the World is committed to sharing our field findings so that our experience can be part of the WASH conversation. I am grateful for Mario and the Pure Water team who spent hours collecting and analyzing the data. Their efforts made the subsequent studies possible. To be effective and impactful, we need to

understand what is working and not working in the field and why. The WASH sector as a whole improves when we expand conversations and collectively share lessons learned.”

The full study will be published soon in the Journal of Water, Sanitation, and Hygiene for Development.

About Pure Water for The World:

Pure Water for the World is a 501(c)(3) organization that provides safe drinking water, hygiene education and sanitation to children and their families living in underserved regions of developing countries. For more information, visit www.purewaterfortheworld.org.

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