



FINAL REPORT Quench Summit Santa Barbara, California U.S. – August 27-29, 2009

Quench Summit Objectives

The August 27-29, 2009 Quench Summit in Santa Barbara, California was organized by Safe Water International and the Eleos Foundation to discuss the Household Water Treatment (HWT) options that will best serve a rapidly accelerated program of HWT implementation, such as the *300in6* proposal of members of the Netherlands Water Partnership. This initiative seeks to use HWT to address the drinking water needs of 300 million people without potable drinking water by the year 2015. Safe Water International is an NGO based in Carpinteria, California that conducts rural drinking water projects in Mexico, Bolivia and Malawi. The Eleos Foundation of Montecito, California is a private foundation supporting projects that create self-sufficiency for the poor.



Dr. Jerry Delli Priscoli, Keynote

When first envisioned, the Quench Summit was to be a technical discussion that drew upon engineering, scientific, and field expertise in drinking water purification. Invitees were to identify HWT solutions capable of large-scale manufacture—tens of millions of units—as well as to highlight solutions which might soon be mass manufactured through a crash program of research and development.

Review of studies by Professor Urs Heierli of NWP and Thomas Clasen of the World Health Organization (WHO) in advance of the conference highlighted considerations of marketing, distribution, sales, and hygiene education in any discussion of HWT solutions. The Quench Summit incorporated these criteria into its final agenda by dividing the work of the conference into three panels, which met over the two days of the conference and formed action plans in their areas of concentration. They were:



PANEL #1 – HOUSEHOLD-SCALE SAFE WATER SOLUTIONS:

- The technology, design, function, and manufacture of filters and other means of providing safe drinking water.

PANEL #2 - HEALTH, SANITATION AND EDUCATION:

- How do we make hygiene and sanitation integral elements of our enterprise, or should we?
- What comes first: sanitation education, implementation or drinking water solutions?
- What are the most effective hygiene and sanitation project models?

PANEL #3 – MARKETING; DISTRIBUTION, SALES:

- How to provoke consumer acceptance—what business models and cultural imperatives must be considered?
 - What prompts communities to accept drinking water solutions?
 - What models can be drawn upon?
 - Who undertakes marketing, distribution and sales?

Summit Summary

The work of the three panels was launched by Henk Holtslag, consultant to Connect International, a Netherlands-based NGO dedicated to family self-help solutions for the poor. Holtslag is the co-author of the *300in6* initiative to provide HWT solutions to 300 million people over the next 6 years, and a developer of the Siphon Filter, manufactured in India. His presentation reviewed the role of HWT in addressing the UN Millennium Goals to reduce poverty and catalogued the array of home water purification solutions that are currently or could soon be manufactured in volume for national and international distribution.



Henk Holtslag & Siphon Filter

The second conference day began with a presentation by Dr. Jerry Delli Priscoli, member of the Governing Board for the World Water Conference. Delli Priscoli placed HWT in the context of the international effort to address global water needs and **pledged to seek placement of HWT on the agenda of the 2012 World Water Forum in Marseilles, France.**

Panel Summaries

Panel #1 – Household-Scale Safe Water Solutions - The Solutions Panel addressed HWT solutions capable of rapid scaling-up and considered the marketing, distribution, and education programs needed to support any HWT solution. The panel used as its baseline a \$10.00 USD annual family cost for purchase, operation, and maintenance.



Ceramic Pot Filter

A consensus built around the ceramic pot filter, because of its manufacture in several parts of the world, especially in Cambodia where an estimated 10% of families use the device. The panel concluded that further development of the pot filter must focus on making it more durable (for stacking and shipping) and standardizing its manufacturing process. A related device, the ceramic disc, infused with colloidal silver

like the pot filter, drew interest with the recognition that it requires further testing to determine its effectiveness and useful life.

Other devices that drew support were the Connect International Siphon Filter, Aquatab chlorine disinfection tablets, the Watasol chlorine generator, and Silverdyne disinfection solution. SODIS was recognized as effective, but the panel agreed that acceptance and wide, sustained use would depend on development of a passive solar device that addressed cultural and social needs.

Panel #2 - Health, Sanitation and Education – An extensive hygiene and sanitation education program emerged from this group, intended to dispose communities to seek drinking water and sanitation solutions while providing training and support for solutions that communities ultimately select. The proposed program would be undertaken on a country-wide level and rely on a network of training headquarters to help communities set their hygiene and sanitation agendas. The conduct and materials of the education program will be constantly improved through community input.

Panel #3 – Marketing; Distribution, Sales – Panel members echoed the findings of the Urs Heierli study, “Marketing Safe Water Systems,” that families in the most remote communities purchase some costly items such as cell phones, but not locally available household drinking water and sanitation solutions. Discussion reviewed the drinking water field work of participating NGOs and existing social marketing approaches (i.e. publicly sponsored hygiene and sanitation information programs) that might be adapted to interest poor families in purchasing household drinking water solutions. Panelists noted in this regard the extensive national information programs in Africa aimed at HIV/AIDS prevention.

The panel’s action plan draws heavily from observation of the Peruvian FONCODES and PRONASAR programs, which use public advertising through highway billboards and other media to recruit community participation in self-help drinking water and sanitation programs and to extend recognition of successful community projects.

Conclusions

The action plans of the three Quench Summit panels combine to form a strategy for quick acceleration of HWT solutions to help meet the year 2015 UN Millennium Goals, as well as the goal of the *300in6* initiative to bring HWT solutions to 300 million individuals over the next 6 years. An accelerated R&D program is needed to standardize the production and quality of ceramic pot filters and ceramic discs and to quickly broaden the distribution of Siphon Filters, Watasol chlorine generators, Aquatabs, and Silverdyne. Other HWT solutions found to be affordable, effective and capable of rapid world-wide distribution will be added to the list quickly.



Connect International Siphon Filter

A successful effort to quickly deploy HWT solutions must be accompanied, and ideally introduced, by a national hygiene and sanitation education program and mobilized by national social marketing programs that prompt communities to identify their drinking water and sanitation needs and form self-help plans based on solutions available in the marketplace or through publicly funded programs.

The six-year deadlines for the UN Millennium Goals and the *300in6* initiative require a rapidly accelerated pace of action, far greater than the combined efforts currently underway by all international, governmental and NGO organizations working on safe drinking water. The scope of this effort demands large and committed international partnerships from public and private organizations within the international water sector. Where HWT is utilized to meet the 2015 goals, the commitment and effectiveness of the partnerships focused on HWT will be far more critical than the amount of resources required. The *300in6* program, for example, proposes to do its work for a total cost of \$600 million USD.

Commitment, organization, and rapid action make up the formula for a successful international effort to end the global drinking water crisis in 6 years. Participants at the Quench Summit pledged to work toward formation of the partnerships needed to undertake action in each of the regions of the world where action is needed.

*Documents used and produced at the Quench Summit can be accessed at : www.300in6.org and www.quenchworks.org