

Low Cost Emergency Water Purification Technologies

Natural disasters, such as floods, tsunamis, hurricanes, and earthquakes, affect over 226 million people every year. The occurrence of these natural disasters has been increasing every year due to the effect of extreme weather events and higher populations living in areas vulnerable to natural hazards.

Developing a guideline for emergency water treatment becomes even more important as the number of natural events continues to increase. Simple and low cost technologies have been developed to provide ways to treat water, ranging from point of use (POU) treatment to small scale (SS) community treatment. During times of natural disasters, POU and SS technologies offer applicable ways for providing clean and safe water.

This guide to emergency water treatment has been developed based on current research, products, and field studies to create an expeditious and easy process for choosing which technology is most appropriate in each emergency situation.



Initial, rapid response for water treatment should have the following characteristics :

- Portable
- Low cost
- Light weight
- Ease to use or requiring minimal training
- Requiring minimal or no external power

A solution for long term response should have the following characteristics:

- Ability to support a community or large population
- Able to purify large volume of water
- Parts that do not require frequent replacements
- Does not require complex training to operate
- Uses easily available power sources

This is a valuable resource for Environmental Engineers, Civil Engineers, Environmental Engineering Technicians and Civil Engineering Technicians

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