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ater Mission's solutions are geared to provide sustainable access to safe water — not simply improved water that could still make people sick — and then to protect that water and store it safely.

Our most frequently used solution is a patented water treatment system, designed by our co-founder Dr. George Greene III, PE, and a team of engineers. The Living Water Treatment System (LWTS) is essentially a miniature water treatment plant that can purify more than 10,000 gallons of water per day — enough drinking water for 5,000 people. Like many municipal treatment facilities in developed countries, this unit relies on filtration and disinfection to produce safe drinking water.

The LWTS is robust. It is engineered for difficult environments, quick deployment, and sustainable long-term operation. It is rugged, simple to operate, and easy to transport. The system treats 10 gallons (38 liters) of water per minute from raw water sources such as rivers, lakes, springs, ponds, or wells.

For more info on the LWTS and other sustainable safe water solutions we provide, contact Sean McSwain, Project Manager – Partnership Support, at 843.769.7395 or smcswain@watermission.org.

SAFE

- Water quality produced to WHO guidelines
- Patented four stage treatment that:
 - removes 99.9% of particles greater than three micron
 - consistently produces clear water (<1 NTU of turbidity)
 - inline chlorination disinfects water and provides protective residual
- Capacity: 10 gallons per minute

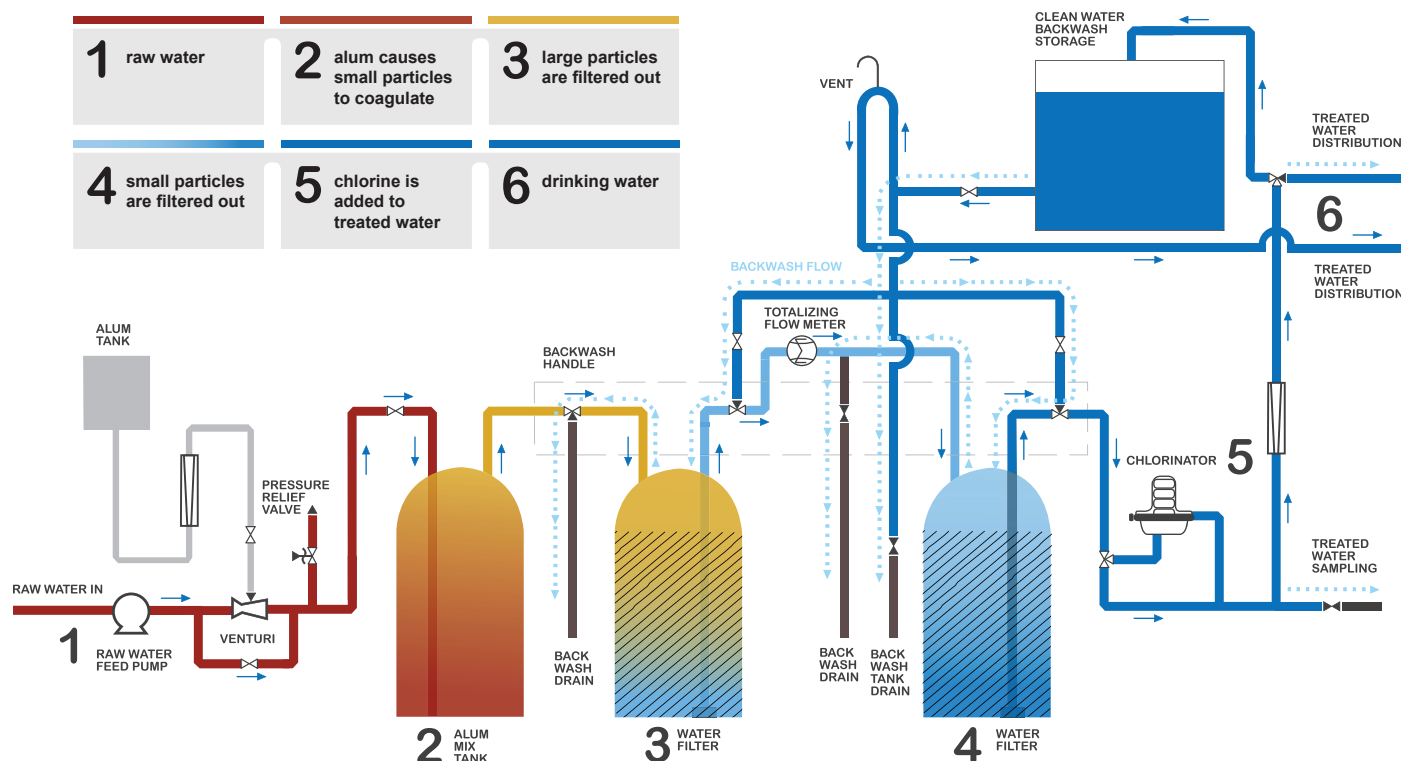
SIMPLE

- Rugged design – transportable by pick-up truck
- Able to be set up and operational in three hours
- Patented valve manifold enables backwash with operation of a single linkage

SUSTAINABLE

- System operational for up to 20 years
- Chemical operating costs are less than \$0.14 USD per m³ (265 gallons) of treated water
- Technical support and spare parts are available from 10 country offices
- No electricity required to operate the LWTS – other than the pump to the system (if needed)

Living Water Treatment System



STANDARD SYSTEM INCLUDES:

Cage 1: Filtration System

- Venturi based alum addition system including reaction tank
- Primary and secondary backwashable filters
- Inline Chlorinator with easy-to-use test kit for monitoring

Cage 2: Water Tank

- One 275-gallon tank for backwash and filtered water storage

AVAILABLE OPTIONS:

Cage 3: Disaster Support Equipment

- Surface or submersible pump as needed
- Operating supplies for one year
- Assembly, maintenance tools and operation manuals

Solar Panels and Control Equipment:

- Fixed or flexible solar panels available

- No batteries required in order to provide continuous water distribution (provided through elevated water tanks)
- Solar powered pumps are variable speed pumps, capable of running on a range of voltages including AC or DC sources

Generators:

- 6 kW generators available in both 50 Hz and 60 Hz
- Fuel tank and replacement fuel filter included

Technical Specifications:

- Operational Flow rate 3-10 GPM (0.7-2.6m³/hr)
- Operational Pressure:
 - Gravity Filtration: minimum 20 feet of head (6.1m)
 - Pumped Flow: maximum of 70 PSI inlet (4.9 bar)
- Chlorinator can treat up 238,000 gallons at 1 ppm of Free Chlorine before replacement of 5 tablets.

- Pressure drop across system
 - 10 PSI @ 6 GPM (0.7bar @ 1.3m³/hr)
 - 25 PSI @ 10 GPM (1.7bar @ 4.6m³/hr)
- Stabilized tablet chlorine (ACL 90)

SHIPPING SPECIFICATIONS

- Shipping: 19 units in a 40ft container or 9 units in a 20ft container
- Each unit measures 48"W x 40"D x 46"H
- App. Total Weight: 950 lbs (430kg)

TYPICAL PERFORMANCE BASED ON EXISTING SYSTEMS:

Can be used in combination with Oxidation to remove Iron and Manganese from boreholes.