



AN ENVIRONMENTAL
REMEDICATION COMPANY

*mobile water purification systems
wastewater systems
water treatment technology*

*“Water will be more important than oil this century”
Boutros Ghali Former U.N. Secretary General*

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The Company

Global Ecology Corporation (“GEC”) is a publicly traded company that is committed to the development, production and marketing of advanced technologies that address specific worldwide environmental challenges.

Our current portfolio of proprietary and licensed technologies focus on point-of-use water purification systems, and water and soil remediation solutions which meet the long and short term water and soil quality requirements of world markets for residential, commercial, industrial, and emergency applications. Our current portfolio of technologies includes:

Mobile Water Purification Systems: GEC provides flexible and mobile water purification systems for use in areas where safe and clean drinking water is scarce or affected by natural disasters. These are the most cost effective, transportable; high-volume purified and scalable water production systems available in the market today. A single pod can meet the daily World Health Organization targeted desired water consumption needs of small towns and villages;

Water Remediation: Using EnvirEau Technology’s Health Canada, NSF and EU certified approved Ionized Mineral Solutions (IMS). GEC can treat reservoirs and other large bodies of water while providing the added benefit of keeping water infrastructure delivery systems free of harmful bacteria and bio-fouling organisms;

Wastewater and Wastewater-Effluent-Recycling: Using Global Water Group’s ⁽¹⁾ Wastewater-Recycling process, GEC provides the world’s “greenest” and most environmentally correct wastewater system. Existing wastewater systems worldwide are the number one contaminant on the planet ruining man’s water supplies. At the end of the day, these Global Water systems leave NO SLUDGE to contaminate and the wastewater-effluent meets or exceeds (International-EPA and WHO) potable water standards.

GEC’s expanding portfolio of environmental remediation technologies are specifically targeted at contaminated water and soil environments. We provide site owners, engineers, consultants, governmental agencies, and the academic community unbiased design and cost-effective remediation strategies. Our field-proven biotechnology-based solutions are used around the world to effectively manage complex, challenging environmental liabilities, while saving clients significant time and money. Our technically superior remediation solutions are proven to treat the widest range of organic contaminants by accelerating natural attenuation in water and soil.

Global Ecology's Mobile Water Purification Systems

Mobile Water Purification Systems



Global's LS3-M20K Platform Series™(1)

GEC offers individual, modularized fresh water purification systems with capacity ranging from 1,400 gallons per day (GPD) to 264,550 GPD per modular unit. By adding modules, there is no limit to the size of a system. These systems are fabricated and tested in a controlled environment to minimize any project timeline, designed in a modular format so that the systems can be relocated and/or clustered depending on the user's water needs and future requirements. Global's systems require a minimum amount of maintenance, are easy to operate and solve the problem of initial system "over engineering"; thus, user's can scale up over time as demand increases.



Global's LS3-M15000 Trailer Series™(1)

All of GEC's Mobile Water Purification Systems are true decentralized water purification solutions designed to provide safe drinking water in areas without access to safe water supplies. Depending on the units' volume capacity, the systems can be rolled, placed or mounted in the bed of a pick-up truck; built in small housings; placed on platforms; or be delivered in standard ISO containers.

Global's LS3-Military Back Pack Series™(1)



Global's LS3-M8000™(1)



GEC provides Global Water systems that utilize the three basic principles for water purification. (1) Utilizing replaceable 1-Micron filters, intestinal protozoa such as *Cryptosporidium* and *Giardia* as well as other parasites are eliminated. (2) Global's proprietary absorption/adsorption process removes and eliminates more hazardous chemicals, heavy metals, insecticides, radon, etc. than any other process without removing the good minerals so necessary to our bodies. And (3) with the use of ultra-violet (UV) light, the systems kills 99.9999% of bacteria and viruses.



GEC provides the absolute best water purification systems for contaminated fresh water, brackish water or seawater; whether the needs are for an emergency, a village, a town or a city; whether the system is mobile or fixed-base.

Global's LS3-Village-200E Series™(1)

Desalination:



Global's LS3-Desal-M75GPH™(1)



Global's LS3-Desal-M300GPH™(1)



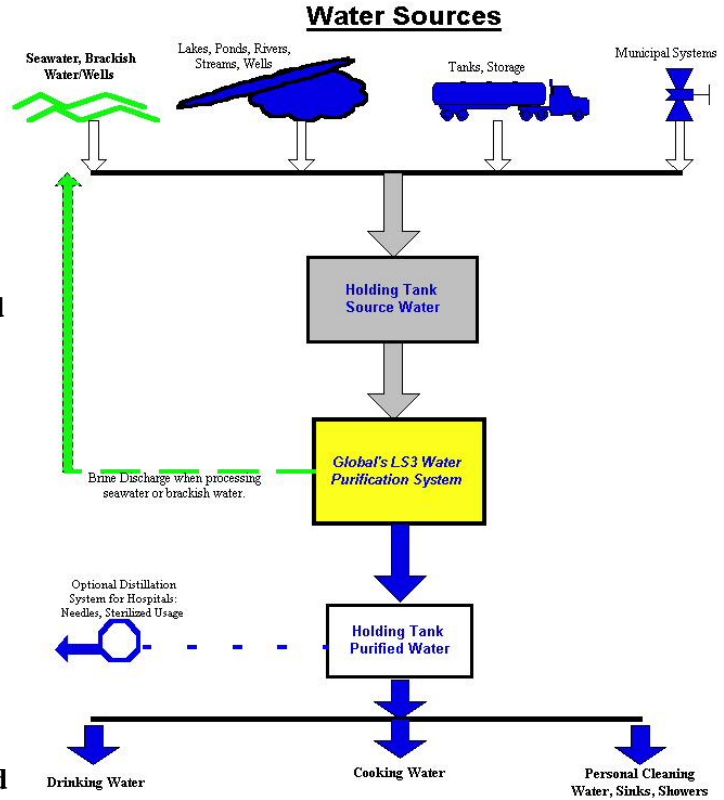
Global's LS3-Desal-M600GPH™(1)

GLOBAL'S ENTIRE VILLAGE CONCEPT

WATER PURIFICATION, WASTEWATER PROCESSING and WASTEWATER-EFFLUENT RECYCLING

FOR VILLAGES, TOWNS, LIMITED SIZE ENCAMPMENTS, MASH UNITS, SUBDIVISIONS AND OTHER CONTROLLED ENVIRONMENTS. (In whole or in part.)

- Source water can be any source: fresh or seawater.
- Non-drinkable water, even highly contaminated water, is purified and potable.
- “Used” water flows down the drain and is emptied into the Wastewater System.
- Black-water from the toilets is emptied into the Wastewater System.
- Wastewater effluent is processed in a Gray-Water Recycling System where the suspended solids are recycled to the wastewater tank and the remaining effluent is purified to be used in any manner needed.

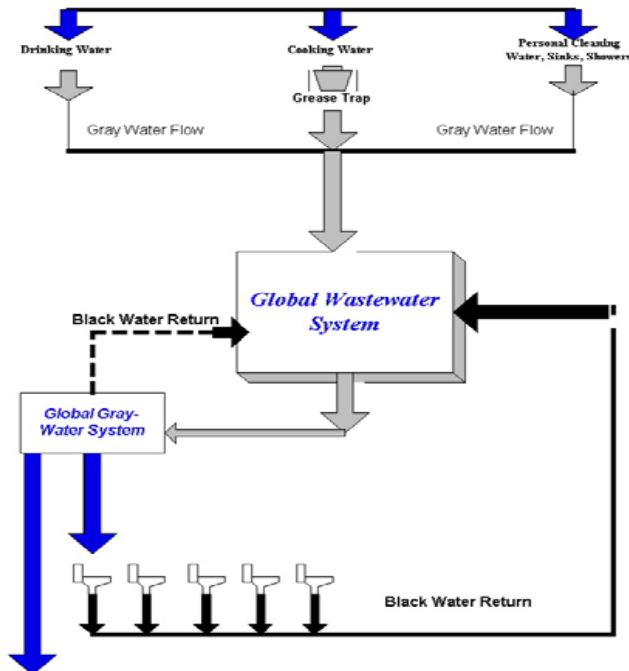


The “Village” now has a water system that is totally safe for personal use or return to the environment.

Step 1: Purifying Water To Potability
Global's LS3 Water Purification System

Step 2: Processing Wastewater
Global's Wastewater System

Step 3: Recycling the Wastewater Effluent
The Global Gray-Water System



Cleaned Water Discharge for dispersment into water sources, on to land, use for agriculture, use for cleaning equipment, etc., etc. Almost (or can be) potable.

Modularization: These systems can be sized, in a modular format, for use in a small village or the largest city. These systems can be located in remote areas for more effective development without extensive infra-structure connections. These systems can be increased in size and can even be moved to better fit the growing needs.



WATER REMEDIATION

Technology Overview

GEC's licensed technology involves using a chemical formula consisting of a combination of acids, some organic and some inorganic, combined with crystal copper sulfate. This patented product will effectively kill the harmful bacteria and reduce excessive algae to a desirable level without harming the beneficial heterotrophic bacteria. In fact, the water should see a temporary increase of this bacterium during initial treatment phases, with levels quickly returning to normal and the population maintained at desired levels throughout the remaining treatment period.

ICS, an innovative algaecide/bactericide/herbicide and fungicide for use in water clarification/odor/bacteria/algae control in lakes, ponds, reservoirs, water and sewage treatment and closed looped systems whose active ingredient is a biologically active form of copper ion (CU^{++}). With the breakthrough multi-acid formulations of IMS, copper is chelated in a tight bond and can be suspended at concentrations well within all safety minimums.

Unlike traditional copper sulfate products, the Company's IMS formula is a proprietary non-oxidizing micro biocide that contains a unique chelate, which produces high concentrations of hydrogen ions in a variety of water conditions. These ions bond with the copper ion (CU^{++}), to keep it in suspension, which prevents the typical precipitation problems of conventional water treatments. In addition, IMS can maintain scientifically predictable copper levels over extended periods of time, which provides precise control of bacteria and algae growth without over- treatment. IMS can self-disperse through any size body of water or sewage, producing uniform concentrations of copper ions at any point in the body of water.

In contrast to chlorine, which is an oxidant that destroys the cellular walls of algae and bacteria, IMS is a non-oxidizing micro biocide which destroys bacteria, algae, and other organisms by interfering with their metabolism, causing the destruction of their reproductive capabilities; in effect, bacteria, algae, and fungi simply "die out." The microorganisms that are killed in chlorine treatments add to the sediment and cloud the water, while IMS leaves the water crystal clear.

Extensive testing, which has confirmed the safety and efficacy of these unique IMS products, has been conducted in the United States, Canada, Mexico, Latin America, China, Southeast Asia, South Africa and Europe. All of the IMS products distributed by the company are proprietary formulas with the highest world certifications.

Our marketing agreement gives us exclusivity by both geography and customer. Our geographic carve-outs are in developing international markets committed to protecting intellectual property rights. We currently are focusing our marketing activities in the United States, South America, Mexico and various Asian regions. Exclusive potential customers include the U.S. Department of Defense, Department of Agriculture, Department of Homeland Security and the Federal Emergency Management Agency and countries whose initial contact is made through the United Nations.

The Science behind Ionized Mineral Solutions

The major difference between copper sulfate dissolved in water and copper sulfate dissolved in the proprietary MS formula is the degree of toxicologically active copper complexes that are formed. Because of the abundance of hydrogen ions in IMS, higher concentrations of active copper complexes (Cu^{++}) are held in suspension in a stronger chelated chemical bond, thus preventing the precipitation problem that is common with copper sulfate in water. When copper sulfate is dissolved in water, the copper must chemically change to an active form before it can kill micro-organisms. The extent of these chemical changes is difficult to predict. But with IMS, the copper is already in its active form and requires no chemical change. Thus, the copper concentration can be predicted precisely with IMS.

Because the response to different copper complexes varies with each microorganism and even with different life stages of the same organism, selective control of various organisms appears possible. Our results verify this fact.

- Tests have shown that at 0.75- 1.0 ppm copper concentration there is prevention of a variety of bacteria and fungus on skins of fruits and vegetables, control of algae and bacteria in ponds on fish farms and bacteria outbreaks on dairy farms;
- Manure and waster water sludge treated with the product will result in an elimination of odor. It achieves this by killing the odor-causing anaerobic bacteria, which helps promote the production of beneficial bacteria;
- Mixing IMS with some herbicides and fungicide may produce a product with greater efficacy. With the addition of IMS, a lower application rate of the existing pesticide or herbicide will result.

For copper sulfate to kill a micro-organism, the copper must first undergo a chemical change. As has been mentioned above, this chemical change in various substances is not identifiable or predictable. Therefore, with copper sulfate, or other similar copper based products, it is possible to have an excessive kill even with a lower application rate. However, with IMS the situation is very different. Because of the low pH chelated formulation, which attracts the copper ions, the copper is already in a toxicologically active form and requires no further chemical changes. The application rate can now be determined so the range of microorganisms to be destroyed is more controlled and at a lower ppm of active copper.

Differentiating Technology Factors

Our ionized minerals are a superior technology with critical inherent advantages in efficacy, self-dispersion and environmental safety over the most popular existing chemical treatments. Within the water treatment space, we view our competitive advantages at two levels – product and corporate.

As a product, IMS is specifically formulated for use in treatment of the drinking water supply and contains a unique chelate that produces higher concentrations of hydrogen ions in a variety of water conditions. These ions bond with minerals, such as the copper ion (Cu^{++}), to keep it in suspension, which prevents the typical precipitation problems common in other conventional chemical water treatments.



The unique chemical formulation allows the product to self-disperse in large bodies of water evenly throughout the water column. That represents a core, proprietary differentiator, as prior copper-based water treatments such as copper sulfate pentahydrate were broadcast directly on the surface of bodies of water, canals and streams with resulting concentrations being weaker at the surface and reaching toxic levels at the bottom.

Ionized Mineral Applications

IMS effectively controls the following:

- All forms of bacteria, viruses (enveloped and non-enveloped), fungus, filamentous and planktonic algae and spores;
- Midge and mosquito larvae development;
- Pathogens including E. coli, vibrio cholera, legionella pneumophila, salmonella, streptococcus fecalis, listeria monocytogenes, shigella sonnei, pseudomonas aeruginosa, staphylococcus aureus and other organisms;
- Odor in waste water and other water sources.

Applications include the following:

- Potable Water;
- HVAC Systems
- Lakes, ponds and lagoons;
- Dairy and fish farms;
- Field run-off water;
- Fruit and vegetable wash;
- Sewage systems;
- Rice fields;
- Reservoirs;
- Irrigation supply systems.

Certifications for the company's product lines include:

Health Canada, NSF International, Various Governments in the EEU and South Africa (CSIR)
Environmental Protection Agency – Registration is pending



Manufacturing Partners:

Mobile Pure Water Systems

IMS1000

Global Water Group

EnvirEau
TECHNOLOGIES®