

"The New Emerald City™"

The Ecological Vision:

A new appreciation, even renaissance involving a vision that the quality of the environment is perhaps the most fundamental influence on the quality of life, is spreading throughout the world.

This springs from a holistic perspective that the fundamentals of existence involve more than the merely adding up of parts. There is a new awareness of the complex interconnectivity of life, which is seen to provide the potential for choices which can lead either into growth and vitality, or destruction and stagnation, even toxicity.

Nature is willing to restore her equilibrium through creative change, and all environmental challenges can be viewed as an opportunity to facilitate a return to a more fundamental healthy condition in which living systems can safely flourish.

Our activities, particularly when they are compressed into high densities within cities, generate substantial wastes which must be cleaned, regenerated, and then returned back to our common environments: water and the earth.

Luckily, there are also new capabilities for advanced waste treatment systems to be specifically engineered to efficiently remove and process these wastes, restoring and maintaining the circulatory system of our social bodies in a healthy state, and thereby assuring a basic prerequisite of civilized living.

Cleaning, which is traditionally seen as the elimination of solid wastes and the sanitation of harmful bacterial contaminants, is likewise being reexamined to identify how best to work within natural laws.

The toxicity of sanitation chemicals, which while initially providing the means to destroy undesirable organisms, are inherently deadly to nature's underlying mechanisms for regeneration, and often lead to a more subtle poisoning of the environment and living beings.

Simultaneously, the magnitude of waste generation places a greater burden upon the regeneration mechanisms, or natural processes, which ultimately are called upon to bring our waters and soils back to health.

Recent new developments in the very ancient field of biocatalysts (we make wine, cheese, and bread through their actions) is pointing the way to a more elegant solution to both removing harmful contaminants, and enhancing nature's own dynamic regenerative capabilities.

A New Science of Environmental Cleaning:

A Bio-Organic Catalyst is a powerful, all-purpose, non-toxic, non-caustic, non-irritating, broad-

spectrum, highly concentrated, liquid biocatalytic agent, that brings exciting new advancements to water purification, non-toxic cleaning, remediation rates, elimination of biofilms, and can deliver immediate benefits to the most fundamental quality of life environmental challenges of our global society.

Extensive scientific studies (*) have shown that the natural biocatalytic actions of the Bio-Organic Catalyst compositions provide numerous benefits to both water purification and wastewater treatment systems. Additionally, the Bio-Organic Catalyst broad spectrum biocatalyst products bring an extraordinary ability in breaking down the most difficult and chronic components of our organic wastes.

Fats, oils, and greases (FOG), petroleum hydrocarbons (TPH), and organic biofilms represent the most chronically occurring elements in the cleaning of our civic environments, and are specifically well suited to cleaning and remediation by Bio-Organic Catalyst agents, due to their unparalleled ability to accelerate a natural solubilization and accelerated degradation of these organic wastes.

Biofilm formation is the leading cause of the long-term buildup of the organic microscopic structures that can lead to infectious pathogens (water & surfaces), corrosion growth, toxic chemical residues, greases & oils, that form the foundational matrix of the most basic environmental pollution challenges of our habitats.

Odors are probably the most troublesome, and prevalent, source of community complaints due to their immediate impact on the quality of life, and Bio-Organic Catalyst biocatalyst compositions offer instantaneous elimination, not masking, of the strongest odors on contact.

The underlying biological conditions that cause odors to form are tied to the inability of the insoluble components of organic wastes, including the FOGs, to breakdown, along with a lack of adequate dissolved oxygen (DO) levels, leads to the creation of septic, or anaerobic biological states, which then produce noxious odors, both conditions which are specifically treated through the the addition of a Bio-Organic Catalyst into the wastewater stream.

Total petroleum hydrocarbons (TPH) contaminates are another chronic environmental pollutant which is effectively broken-down, or remediated, through the use of Bio-Organic Catalyst cleaning and remediation agents.

The United States Air Force (USAF) commissioned an evaluation of a broad spectrum of enhanced remediation procedures and biological additives with a major engineering company, Metcalf & Eddy, and concluded that the Bio-Organic Catalyst product formulation provided the greatest acceleration of remediation rates, and accomplished this at the most cost competitive price, against a cross section of bioremediation approaches.

Bio-Organic Catalyst unleashes the power of nature to restore the vitality of our living environments through rapidly breaking down the molecular structures of organic wastes by a rapid enhancement and acceleration of the biological conversion abilities that naturally occur in nature. They produce no

toxicity, or harmful byproducts, which can cause damage to humans, and the vitality of our waters and soils.

The Non-Toxic Cleaning and Remediation of Organic Wastes:

All Bio-Organic Catalyst product formulations are applied through water delivery systems. Hand and hose sprayers mix the Bio-Organic Catalyst liquid concentrate with water, at highly diluted rates. Water bodies and wastewater streams are treated by metered dosage pumps, sometimes injected directly into an air diffusion device which enhances water oxygen levels.