WATER ON DEMAND

Molecular Separation Technology ("MST")

Solving Tomorrow's Water Needs Today

Between land based sources and the Pacific Ocean there is enough water available to meet current and future water needs for people, agriculture, business and wildlife in California. The problem is these large reservoirs of water contain elements such as salt/nitrates etc. that must be removed before the water is suitable for human, agricultural and wildlife use, "potable water". Current methods for creating potable water have significant challenges 1) Cost, 2) Environmental Impact and because of one and two, 3) Scalability. The Molecular Separation Technology Solution is a divergent process that solves the three biggest barriers to creating an unlimited and sustainable supply of potable water.

Current water processing technology such as Reverse Osmosis and Distillation methods are accomplished by applying mechanical processes to meet a chemical challenge, removing unwanted elements bonded to water molecules. Heat, pressure and the use of membranes or filters are physical mechanical processes that result in high energy cost and inefficient separation leading to significant amounts of environmentally unfriendly byproduct, highly concentrated salt brine. Simply put the result causes a large carbon footprint, high energy costs resulting in costly water and environmental challenges that adds to costs in both money and potential environmental damage.

The MST approach applies a safe, non-toxic (environmentally friendly) chemical process to solve the chemical challenge of water separation to create potable water on demand using approximately 90% less energy that doubles potable water production, eliminates brine water byproduct and easily scaled to deliver sustainable unlimited amounts of potable water where and when needed.

The Process: Based on the source water profile being processed, peptides (amino acids) are custom engineered to break the bonds holding any unwanted elements to water molecules at the molecular level separating the unwanted elements thereby creating potable water. The process is simple, inexpensive and highly efficient. In the case of salt separation, after separation occurs the salt is close to a crystalline state. After a brief processing period, the crystalline salt will be transported away and repurposed for use as industrial salt in cold weather areas and applied to other industrial uses thereby eliminating any environmental challenges or additional costs where the water is produced and used.

Additional benefits are 1) Rapid development of new, economically viable water resources in 60 to 90 days 2) Dramatically lower start up cost, and 3) The decentralization of potable water creation and delivery; Hesperus can produce potable water anywhere there is water underground with undesirable elements. Immediately reducing the stress on current surface water and fresh groundwater resources in this critical time of unprecedented drought until the necessary infrastructure for unlimited ocean based potable water production is built out and producing.

I look forward to meeting with you soon to further your understanding of our technology to add rapid and significant relief for our dire drought situation and beyond that, long term dependable water resources for Northern California's future for sustainable quality of life and growth of Nor-Cal agriculture and business.

Sincerely,

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