From:

To: Flood Inquiry

Subject: Flood Inquiry Submission **Date:** Friday, 20 May 2022 1:24:13 PM

Our Story:

is committed to boosting Australia's resilience against floods and the associated issues they create in terms of water supply, security and quality. To achieve our commitment, we have partnered with to provide Australians with a unique solution that produces the healthiest water in the world in a mobile, sustainable and energy-efficient form.

We provide Atmospheric Water Generators (AWGs) in variable capacity and size. This is a modular system that produces between 20 and 6,000 litres per day depending on the type of machine and the climatic conditions.

has developed the world's first mobile and fully solar-powered application of Gen-M which can produce 1000 litres of water a day, completely off-grid 24 hours a day, seven days a week. We did this by integrating a Gen-M on our own custom build designed trailer. The trailer is uniquely covered with extractable solar panels that are connected to our custom-built Australian-made battery and inverter system. Notably, the trailer remains under the 3.5-tonne weight limit for normal 4WDs towing capabilities. In essence, this means can provide 1000 litres of water anywhere in Australia without any pre-existing

can provide 1000 litres of water anywhere in Australia without any pre-existing intrastructure or the need to install anything, straight out of thin air. We call it our mobile waterhole.

Causes and contributing factors:

According to a report by Water Research Australia, "extreme weather events may adversely impact on drinking water supplies in a variety of ways, leading to water quality impacts, including increased concentrations of suspended material, organic matter, nutrients, inorganic substances and pathogenic microorganisms in source waters". Dramatic events such as floods, droughts, cyclones, bushfires and tsunamis often leave the worst affected cut off from essential services, including water.

addresses Australia's special communities' requirements.

Preparation and planning

believes the installation of our Gen-M1, Gen-M and Gen-L machines in vulnerable communities is key to preparing and planning for floods and their associated impacts on water quality and supply for the future. For instance, we can install a Gen-M machine paired with a solar/battery installation in a town for circa \$250,000. We can also rig the integrated system on a trailer, so it has mobile capabilities. This means that a community can produce up to 1000 litres of clean drinking water every day during a natural disaster regardless as to whether the local water system has become contaminated with sewage from flood water. The installation of this machine would also nullify the need for water to be trucked in or plastic bottles and containers to be used in the meantime. Note the machine will last 15 year and comes with warranty packages that cater for different preferences.

Response to floods:

Under the status quo, whenever a water supply gets contaminated during a flood, water (often from depleting groundwater supplies) is trucked in on diesel-guzzling trucks at great expense to the taxpayer. Alternatively, communities are forced to rely on plastic bottled water, which has a negative impact on the environment. With our system, water does not have to be extracted, stored and transported. Instead, water is produced on site, simply via the air and power of the sun.

Transition from incident response to recovery:

During an incident, the priority for a community and emergency response services is,

understandably, saving lives and evacuating the affected area. The focus isn't yet on the provision of critical supplies given the immediacy of the situation. However, if communities had installed Watergen machines on high ground, the production of water would continue as the community floods. This means that clean drinking water can be provided to those affected by the floods on demand at a central location known before the natural disaster strikes. This would free up time and energy for emergency services and government who need to organise the trucking in of water to communities with no notice on roads that may have caved in or been inundated with floodwater and debris.

Recovery from floods:

During flood recovery efforts, machines can provide a steady stream of clean drinking water to residents who don't have access. Often, local supermarkets run out of bottled water as well, meaning people tend to buy unhealthy soft drinks instead. Additionally, once floods water subside, roads can cave-in, making it difficult to transport water on large and heavy trucks.