AGE Water Treatment Process

There are several stages in the water treatment process that are required to ensure that the final product meets the AGE water quality standards. These standards are considered the most stringent and environmentally sound in the world.

- Stage 1 involves separation of the liquid waste from any solid material which would slow the purification process down. The water at this stage is heavy in nutrients and liquid wastes.
- Stage 2 requires the introduction of organisms that can break down the liquid nutrients and wastes, removing any dangerous bacteria or other toxins. It is important to aerate the water well at this stage to promote the growth of the right type of bacteria. A natural source of these bacteria is wetland environments. Systems that mimic the flow and ebb of tides have proved to be very successful.
- Stage 3 sees the removal of nutrients from the water. There have been many environmental problems caused by the run-off of fertilisers and other nutrients and the treatment of waste water is no different. To prevent the build-up of phosphorus and/or nitrogen in downstream ecosystems, resulting in algal blooms and the removal of oxygen from water systems, nutrients must be removed. Without proper treatment, nutrient-rich effluent will result in the death of surrounding ecosystems.
- Stage 4

Plants are essential in the purification process of water. They provide a wonderfully safe means of cleansing the water as well as providing habitat for native flora and fauna. The most effective plants seem to be those with large root systems, such as mangroves and other wetland species. Other useful plants include:

- Sweet Sedge
- Reed Sweet-Grass
- Common Rush
- Broadleaf Cattail
- Narrowleaf Cattail

These plants are found commonly in south-western wetlands.