# Plant Selection for Waste Water Treatment

You can choose virtually any plant you like for wastewater treatment beds. Decide what is most important and then choose plants that suit your plans – design, productivity, appearance, practicality. Whether you are considering large trees or simply grasses, they will all contribute to cleaning the water. The only consideration is that you should not grow plants for human or animal consumption.

Vegetation to consider:

Native plants and shrubs

Local species (from wet areas)

Wildlife habitat

While it may appear that plants provide the cleansing agent for water, the truth is that most of the work is done in tandem with microbes. The plants convert sunlight into sugar and store both water and sugar in their roots. Microbes colonise the roots and use this source of sugar and oxygen to convert the dangerous substances in water to harmless gases. For the most effective plant bed filter, you need a range of species that vary in root type and depth. Wetland species are favoured because of their vast root systems.

The stages in water purification are:

Ammonia reacts with carbon dioxide in the presence of oxygen to form nitrates and hydrogen. This happens very quickly.

Carbon combines with the nitrates to form nitrogen and carbon dioxide. This takes several days.

Phosphorous is removed from the water using fired clay bricks.

Plants used to filter water can contribute not only to the environment by their conversion properties but by providing natural habitat to preserve our native flora and fauna and create superb recreational areas.