

Case Study

Rainwater Harvesting in Brisbane, Australia In the summer months, the Williams family, which lives in an inner city suburb of, were using up to 4,600 Litres (1,200 US Gallons) of mains town water a day! Most of this water was used watering their large garden. With dam levels at a low of 32% capacity, the Brisbane City Council introduced level 2 water restrictions in late 2005. The Williams family home had a large Zincolume® roof of over 300 square metres, which provided a large catchment surface. They had space available under their pool deck and had 4 rainwater tanks installed, giving them a storage capacity of over 21,000 Litres (5,547 US Gallons). To ensure they collect good quality water, they had a steel gutter guard system installed to keep leaves (and possums!) out of their gutters. This helps the gutters to dry out after rain, preventing the breeding of mosquitoes in the water that can “pond” in dirty gutters. The Williams property borders a heavily forested local nature reserve, and because the gutter guard prevents leaves, twigs and other flammable matter building up in the gutters, it also reduces the risk of wind blown embers from bushfires attacking their home. Gutter downpipe “rain heads” (Leaf Beater® shown right) have been installed at downpipes that provide water to the tanks, and all pipes pass through a “filter pit” before reaching the tank. The rain heads and filter pit screen any remaining fine leaves and debris, stopping them from entering the tanks. First Flush Water Diverters (one is pictured left) have been fitted as a final stage of filtration before the tanks. These catch the first, most contaminated water before it reaches the tank, and allows the subsequent cleaner water to be collected. These devices catch the finest sediments, helping ensure the quality of rainwater collected in the tank. The Williams family use their rainwater for all outdoor uses, including watering the garden, topping up their swimming pool, and car washing. They are also using rainwater as the source of water for their hot water system, enabling rainwater to be used for baths, showers, dishwashing and in the laundry. Two pumps have been installed – one distributes the water for outdoor uses, and the other supplies rainwater to the hot water system. They have significantly reduced the amount of town water they require, and are enjoying showering under clean, fresh rainwater.