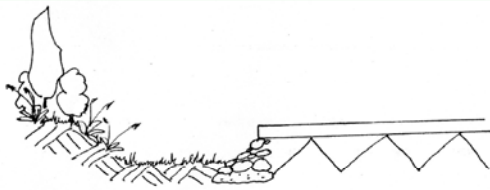




Stormwater Design

We see rainwater as a wonderful resource, not as a nuisance. Overland stormwater management reduces our load on council stormwater systems and creates habitats for plants, birds and frogs.

The overland stormwater system at Earthsong turns a waste problem into a resource, reduces the impact on properties downstream, increases biodiversity, and becomes an asset to the neighbourhood.



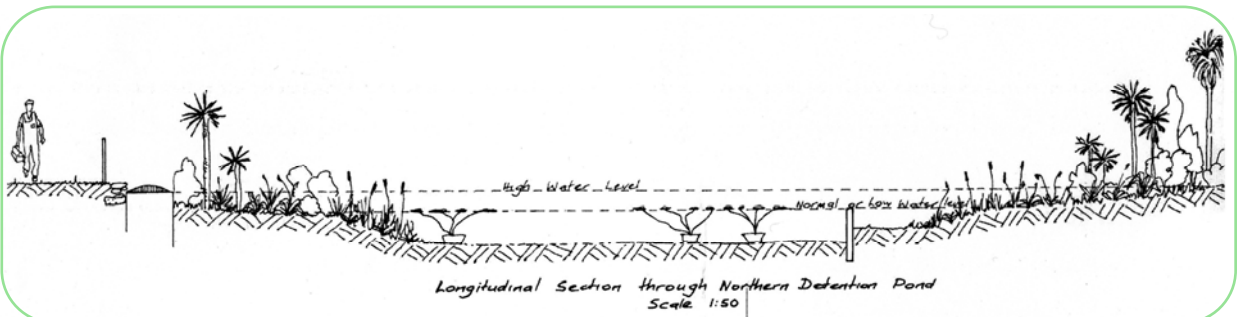
Section through grassed + planted 1500 swale



Section through grassed 2500 swale

The whole site is shaped so that groundwater runs into shallow depressions or channels beside each path. These are planted with water-loving plants to filter sediment and slow down the flow to allow the water to soak back into the ground. They are also beautiful, productive, and a habitat for wildlife.

The channels flow to the pond, where a sediment forebay allows further settling of sediment. In a large storm, rainwater fills the pond and flows over the lip of the manhole into the council stormwater system. Smaller outlets in the pond allow the water level to reduce over 24 hours to the “low-tide” mark, ready to give storage capacity for the next storm.



All carparks and a large area of the driveway are paved with semi-permeable paving to reduce the runoff into the channels. The two marshes act as mini-ponds, holding water in a storm and releasing it more slowly into the channels. This system reduces and evens out the flow of water into the council stormwater system to the same

amount that would have flowed off the site when it was still an orchard, for storms of the severity expected only once in five years. With 32 houses and common buildings where only two stood before, and with the associated driveway and carpark areas, this is a significant reduction in impact.

