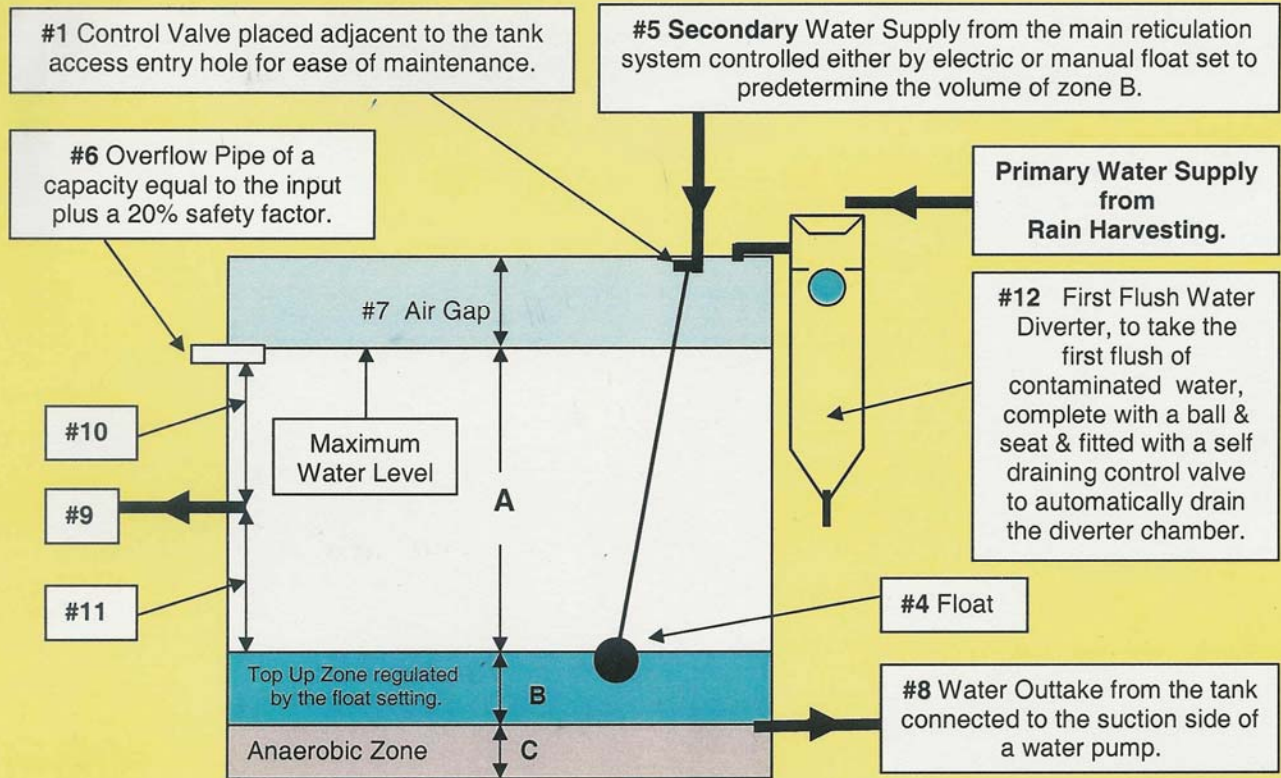


- SETTING UP A SUSTAINABLE DUAL WATER SUPPLY SYSTEM -

**Sustainable Primary & Secondary Water Supply System
from Rain Harvesting, incorporating an optional
Stormwater Detention & Retention Valve**



How does the system work?

When the water level in the tank begins to draw down in sector B the float #4 lowers and the Control Valve #1 opens and water from the main supply #5 enters the tank. When the water level rises the float rises and closes the control valve #1 thus shutting off the supply of water from the secondary supply from the reticulated mains water supply #5.

The Overflow #6 is set at a predetermined distance from the top of the tank which creates an air gap #7. The water level can not rise sufficiently enough for the water to come in contact with the valve #1 thus eliminating the possibility of backflow through #1 into #5.

When the total system is used as a combined detention and retention system an outlet valve #9 can be added, with or without a flow control device, which will allow the tank to empty

of water down to the outlet #9 with such outlet being fitted above the upper level of Zone B.

The effect that this has is that the water between the outlet #9 and the overflow #6 is slowly released to waste or for garden use which guarantees available capacity in the tank to detain the next downpour of rain.

The water below #9 is retained for general use and when the level is reduced below the upper level of Zone B water is automatically introduced from #5 thus guaranteeing a **sustainable water supply**.

The detention zone is indicated by # 10 and the retention zone by #11.

*Detention is delayed release. Retention is retaining/keeping.

As the emphasis moves from providing a predetermined amount of water to a property at a preset annual value, to a user pays system, consumers are beginning to realise that water can be expensive and to cut down on that expense, alternatives to past practices have to be addressed. Consumers will practice water conservation if it can be shown that they will or can benefit financially.