

On site stormwater detention helps relieve pressure on Councils existing and new infrastructure by helping to slow or minimise flows during rain events by detaining or retaining the stormwater collected during such events. Hudson Civil Products has many options to assist designers and builders install the most cost effective option for any given site. Precast concrete units offer many benefits including:

- Fast installation with delivery and installation using a crane truck.
- No assembling, liners or membranes
- No specific requirements on back fill materials
- May be used in trafficked areas
- Manufactured from durable high strength reinforced concrete
- The ability to couple together units for large storage requirements

In fact, with the large range of products manufactured by Hudson Civil Products, we could not possibly detail them all here. Our staff will assess any site to determine the most cost effective option, however, below are the most common off the shelf systems.

2,000 rectangular tank system

The 2,000 litre system is ideal for small unit developments or large houses and is best used as a detention tank to slow flows from the property. A typical system involves the connection of the 100mm or 150mm stormwater pipe at the invert of the tank. The outlet is generally fitted with an orifice plate with an opening of around 50-75mm diameter. This orifice plates allows high flows to bypass the restrictor and exit the pit to alleviate flooding if the 2,000 litre capacity is reached. Alternatively, a surcharge grate can be fitted to allow this surcharge to remain on the property until flows subside.

4,000 circular tank system

The 4,000 litre circular system is best suited to areas where the reuse of stormwater is required. It is becoming more important that our precious rainwater is used to help alleviate the pressures on our lakes and rivers. A Hudson Civil circular tank will provide enough water to run the toilets and also provide water for the garden. A complete design can be provided to ensure the correct pump size is chosen to ensure a seamless change from mains water to recycled stormwater in your house. These systems can be retrofitted to most houses with little trouble.

Modular Box Culvert sections

Reinforced Concrete Box Culverts (RCBC) are the traditional and most widely used system for detaining stormwater flows. RCBC units come in many sizes and it is this flexibility and their ability to be designed for any situation that sees them used extensively. A RCBC system however can be costly for small volumes and will generally require some Engineering designs adding additional costs to projects.

Inline detention using pipes

Once again, pipes have also traditionally been used for medium to large storages and have similar problems to RCBC systems and require a larger footprint as they store less per square metre of area. Problems are also encountered reducing or sealing the ends of these pipe systems. Tasmania's isolation makes some purpose built structures cost prohibitive when freight costings are included.



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