Christchurch City Council
Stormwater Tank Installation Guidelines
for roof, driveway & hardstanding stormwater peak flow reduction.
(Sheet 1 of 2)

Step 1:
Arrange, tank position, down pipes and guttering to best suit site. Check size of guttering and downpipes.

To CCC stormwater system.
Pipe designed for normal 10% AEP storm.

Dp wells to be minimum of 200mm higher than 100mm tank overflow.

Excavated face likely to need to be retained. Concrete interceptor channel to drain to sump.

Outlet 15-20mm ID

ROOF PLAN

Example
GUTTER & DOWNPIPE CALCULATIONS

Roof plan area = 168m²,
From the Building Code Handbook section E1/AS1 table 5, 75x75 rectangular dp serves an area of 90m² max (roof pitch 25°-35°)
2/75x75 rectangular dp's = 180m² max
(105m² required)

Max roof area discharging into gutter:
30m² x 28.5m = 855.0m².
From the Building Code Handbook section E1/AS1
fig15, 50m² requires a gutter with a cross sectional area of 7500mm².
Cross sectional area of gutter selected
125x75=9375mm² (within requirements)
Check dp size has leaf filters available for toilet flushing option (see sheet 2)

Notes:
1) Recommended minimum tank size is 9 cubic metres:
2) For tank stability, the tank must be filled with a minimum of 1 cubic metre volume of stored water immediately upon installation.
Stormwater Tank Installation Guidelines for toilet flushing.

Step 3:
Registered Plumber/Drainlayer and electrician to install pump power supply and fittings as detailed.

All roofs only connected to stormwater tank

HP valve with minimum of 100mm air gap controlled by ball cock at bottom of long rod. Triggered to only turn HP water on when water falls below 2m³.

Standard internal toilet cistern(s) to only have the one water supply point from pump. Full flush cisterns to be used.

Garden taps

Pressure sensitive valve to shut pump off when toilet cistern full.

Syphon outlet 15mm to 20mm ID

To Approved Outfall

Notes:
1. One third of our diminishing supply of pure domestic water supplied is used to flush the toilet in a typical household. (~50m³ flushed down sewer pipes per household annually)

2. Using rainwater for toilet flushing also reduces by one third the volume of rainwater discharged down the public stormwater network. Reducing this volume and peak discharges will reduce erosion on sensitive hillside slopes.

Pump; to pump water to toilet cistern. Draw off point at 1m³ level

Optional 15mm garden water supply

Mains trickle top-up from CCC metered high pressure reticulated water supply to guarantee water supply for toilet. Keep high pressure branch line to tank as short as possible.

All downpipes required to have leaf guard filters.