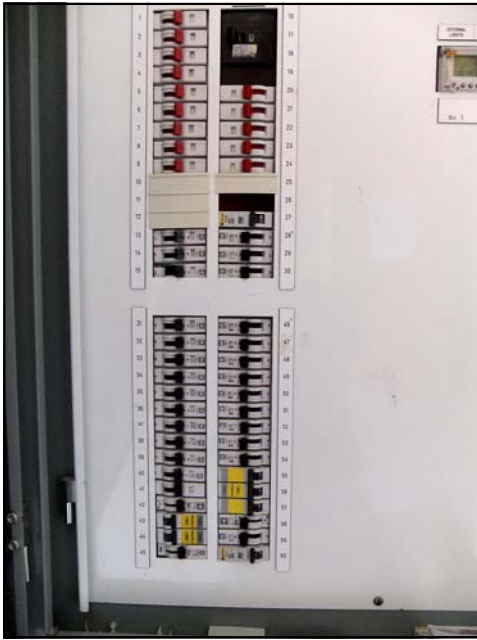




Glen Waverley Uniting Church Rain Water Harvesting Project

Part 5

Points of Isolation



GWUC, RAIN WATER HARVESTING SYSTEM

INTRODUCTION

The systems have been designed so that the water (Mains and Tanks) and power can be readily and safely isolated. This Part of the Manual describes ALL the Points of Isolation

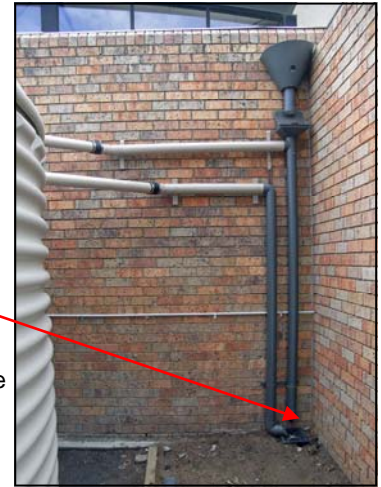
WEST TANK SYSTEM

Rain Water Inlet

From Store Roof

To stop rain water entering the tank, undo the cap at the bottom of the 1st Flush Filter.

The water will drain out of the 1st Flush pipe directly into the stormwater drain below.



From Sump Pump

The float level switch inside the West Tank should normally stop the Pump before the Tank level reaches overflow.

To stop the Pump in an EMERGENCY or to isolate, do one of the following:

- Remove the cover over the power outlet (behind the brick Church sign, cnr Bogong Ave and Kingsway), turn OFF the switch (and remove plug), OR
- Isolate this Pump at the Hall Extension Switch Board (in the Minister's Vestry) by turning OFF Circuit Breaker 15. (This nameplate says CB 15).

West Tank Water Outlets

There are two outlets at ground level on the Tank, each protected by a cover (shown removed).

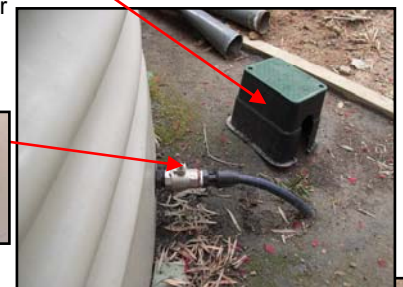
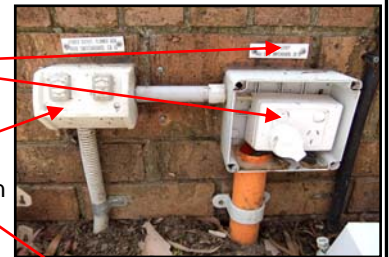
The south side outlet feeds the gravity line to the Manse Tank.

Remove the cover, and with a Valve handle from the cupboard or a shifting spanner turn the valve stem 90° to close the valve (it will only turn in one direction).

NOTE:

The adjacent Power Outlet (for general use) is isolated by a switch, at low level on the inside north wall of the Office.

The other outlet (north side) feeds the West Pump



West Pump

Tank water

There is NO inlet or outlet valves at the Pump.

Isolate the inlet water at the north side Water Tank Outlet.

Power to the West Pump

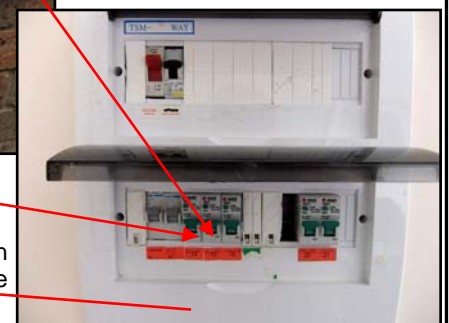
To stop the Pump in an EMERGENCY or to isolate, do one of the following:

- Remove the cover over the power outlet (above the Pump), turn OFF the switch (and remove plug), OR
- Isolate this Pump at the Hall Extension Switch Board (in the Minister's Vestry) by turning OFF Circuit Breaker 14. (This nameplate says CB 14).



Power to Tank Float Switch in West Tank

Isolate 240V power to (high level) Float Switch at the Hall Extension Switch Board (in the Minister's Vestry) by turning OFF Circuit Breaker 15. (The nameplate at the Junction Box on high up on the Store wall says CB 15).



GWUC, RAIN WATER HARVESTING SYSTEM

Valve Train (for Toilets)

Two views of this Valve Train are shown, one during construction and the second after construction was complete including nameplates in position.

Mains Water, from the site Water Meter and main isolation valve at the east of the site is piped partly under the building, and exits the building at the west wall.

The pipe is teed above, and via an isolation valve, (green handle) mains water enters the buildings to feed the washbasins in the Male & Female toilet rooms, the sink in Room 3, the Hot Water Service in the Broom Cupboard and the kitchen.

The tee off to the right also via an isolation valve (blue handle) feeds via the Caleffi (pressure reducing) valve into the changeover system.

The water from the West Pump comes from underground at this point via an isolation valve (red handle).

At the Tee of the Mains Water and Pump water the copper horizontal pipe feeds back into the building to supply ONLY the toilet cisterns for both the Male & Female toilets.

Isolate Mains Water into the Church Building (excluding the toilet cisterns)

Turn the green handled isolation valve 90° to turn OFF the valve. (It will only turn in one direction).

Isolate Mains Water into the Toilet Cisterns

Turn the blue handled isolation valve 90° to turn OFF the valve. (It will only turn in one direction).

Isolate the Tank Water into the Toilet Cisterns

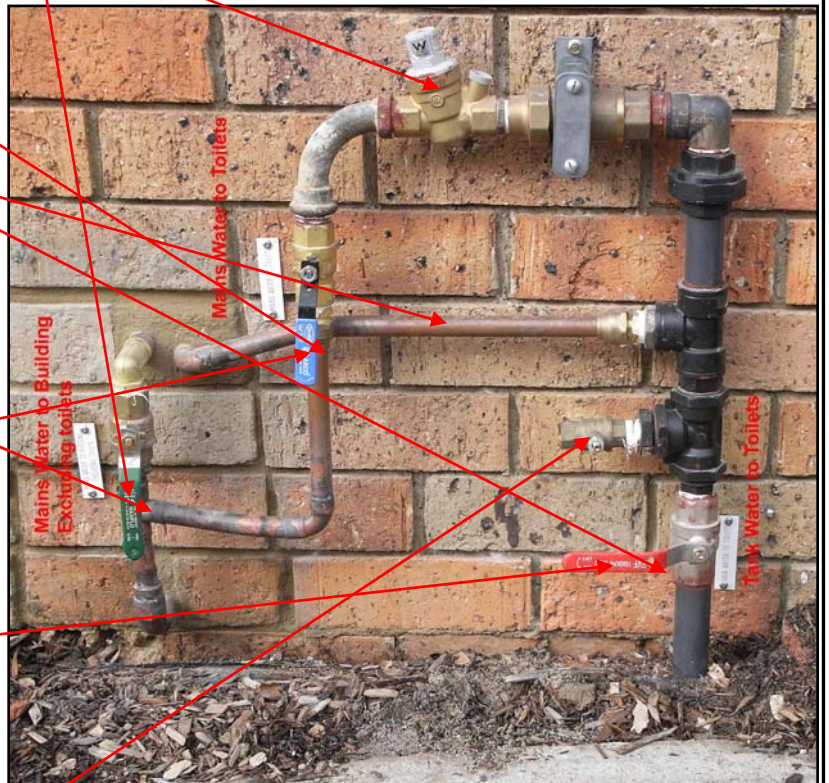
Turn the red handled isolation valve 90° to turn OFF the valve. (It will only turn in one direction).

Isolate ALL Water into the Toilet Cisterns

Turn BOTH the blue and red handled isolation valve 90° to turn off the valves.

Other

The isolation valve WITHOUT a handle is a test or drain valve.



GWUC, RAIN WATER HARVESTING SYSTEM

MANSE TANK SYSTEM

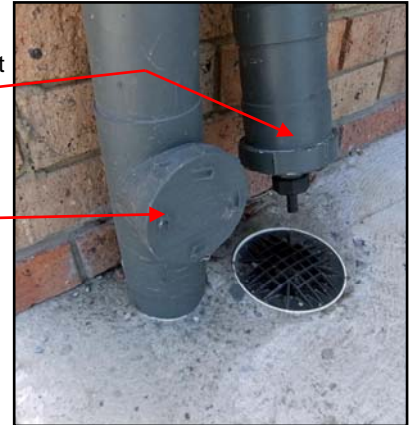
Rain Water Inlet

The Rain water inlet is from the Hall Extension Roof via the "Wet Leg" from the front (east) and back (west) 1st Flush Filters.

To stop rain water entering the Tank:

- undo the cap at the bottom of the east & west 1st Flush Filters OR
- undo the Wet Leg screwed cap.

The water will drain out into the stormwater drain below.



Manse Tank Water Outlets

There are two outlets at ground level on the Tank, each protected by a cover.

One outlet (north side) feeds the Manse Pump.

The other is a capped valve (for draining Manse Tank).

Lift off the cover, and with a Valve handle from the cupboard or a shifting spanner turn the valve stem 90° to close the valve (it will only turn in one direction).



Manse Pump

Tank water

There is NO inlet or outlet valves at the Pump.

Isolate the inlet water at the north side **Water Tank Outlet** as above.



Power to the Manse Pump

To stop the Pump in an EMERGENCY or to isolate, do one of the following:

- Remove the cover over the power outlet (near the Pump), turn OFF the switch (and remove plug), OR
- Isolate this Pump at the Hall Extension Switch Board (in the Minister's Vestry) by turning OFF Circuit Breaker 16. (This nameplate says CB 16).



GWUC, RAIN WATER HARVESTING SYSTEM

VALVE TRAINS (SUPPLIED FROM MANSE TANK)

Hall Extension

Isolate Mains Water into Hall Extension

Turn the blue handled isolation valve 90° to turn OFF the valve. (It will only turn in one direction).

Isolate Tank Water into Hall Extension Toilet

Turn the red handled isolation valve 90° to turn OFF the valve. (It will only turn in one direction).



15 Southdown Manse

Isolate Mains Water into Manse Toilets

Turn the blue handled isolation valve 90° to turn OFF the valve. (It will only turn in one direction).

Isolate Tank Water into Manse Toilet

Turn the red handled isolation valve 90° to turn OFF the valve. (It will only turn in one direction).



17 Southdown Manse

Isolate Mains Water into Manse Toilets

Turn the blue handled isolation valve 90° to turn OFF the valve. (It will only turn in one direction).

Isolate Tank Water into Manse Toilet

Turn the red handled isolation valve 90° to turn OFF the valve. (It will only turn in one direction).



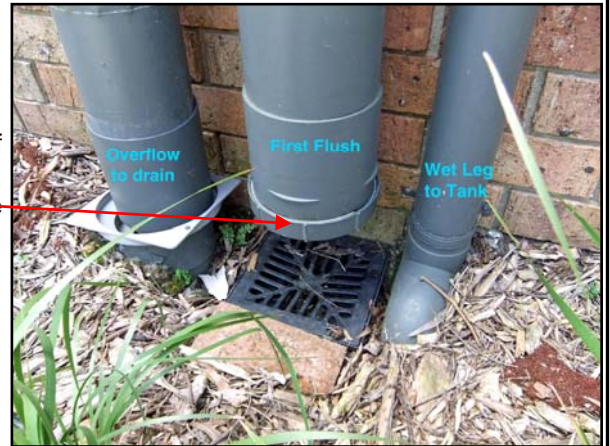
GWUC, RAIN WATER HARVESTING SYSTEM

FERNERY TANK SYSTEM

Rain Water Inlet From Vestry Roof

To stop rain water entering the Tank, undo the cap at the bottom of the 1st Flush Filter.

The water will drain out of the 1st Flush pipe directly into the stormwater drain below.



From Building Roof via Roof Column

To stop rain water entering the Tank, undo the cap at the bottom of the 1st Flush Filter.

The water will drain out of the 1st Flush pipe directly into the stormwater drain below

Fernery Tank Water Outlets

There are two outlets below ground level on the Tank, each inside and protected by PVC pit with push-on cover.

One outlet (west side) feeds the Fernery Pump

And the other has an isolation valve which feeds into and underground rubble pit.

Remove the cover, and with a Valve handle from the cupboard or a shifting spanner turn the valve stem 90° to close the valve (it will only turn in one direction).



West side outlet to Fernery Pump



West side outlet to Fernery Pump

GWUC, RAIN WATER HARVESTING SYSTEM

Power to the Fernery Pump

To stop the Pump in an EMERGENCY or to isolate, do one of the following:

- Remove the cover over the power outlet (above the Pump), turn OFF the switch (and remove plug), OR
- Isolate this Pump at the Church Main Switch Board by turning OFF Circuit Breaker 60. (This nameplate says CB 60).

