

---

# On-site Stormwater Detention Rainwater Re-use Policy for Alterations and Additions and new Single Residential Dwellings

---

## 1. The purpose of this policy is

To allow rainwater re-use to offset the volume of storage required by Council's "On-site Stormwater Detention Technical Specification", without compromising the OSD system's contribution to stormwater management.

## 2. Policy statement

On-site Stormwater Detention is required for all new houses where the total impervious area exceeds a certain percentage. With the implementation of the SEPP Building and Sustainability Index Basix 2004, which requires water saving commitments for alterations and additions and new single house development applications. It is proposed to credit the use of rainwater storage determined by Basix against the calculated On-site detention volume as calculated by Council's "On-site Stormwater Detention Technical Specification".

Rainwater re-use can be used for non-potable applications such as watering the garden, irrigation, clothes washing and toilet flushing.

## 3. Principles

### 3.1 Basix certificate requirements.

BASIX is an on-line web based design tool developed by the Department of Planning and Infrastructure in conjunction with other government agencies and public utility authorities to reduce water and energy consumption for all new housing construction.

On the 1<sup>st</sup> of July 2004 Basix commitments were required for all new Development Applications for single dwelling homes, reducing water and energy consumption. This was extended to alterations and additions to single residential dwellings in July 2006.

Basix ensures each new dwelling reduces water consumption by 40% compared with the average home.

Compliance with this target is demonstrated through the completion of a BASIX assessment and the issuing of a **BASIX Certificate**.

The BASIX on line assessment requires information about the proposed development, such as dwelling size, floor area, landscaped area and services.

The proposal is scored against the potential to use less mains water (potable water), than an average home. By installing rainwater re-use facilities to be used for flushing of toilets and watering of gardens etc.

To obtain a BASIX certificate, development applications complete an on line assessment using the BASIX tool and enter certain site parameters for the proposed development. A BASIX certificate can be obtained at [www.basix.nsw.gov.au](http://www.basix.nsw.gov.au).

### **3.2 Rainwater re-use and On-site Stormwater Detention (OSD).**

Council encourages the re-use of rainwater and where OSD is required as part of a development, Council will allow the volume of rainwater re-use to be credited against the calculated OSD storage volume as determined by Council's On-site Stormwater Detention Technical Specification.

**\*\*REVISED OSD VOLUME = Determined OSD volume (Council Specification) – BASIX certificate storage volume.**

**\*\* Revised OSD Volume to a be a minimum of 50% of determined OSD volume (Council OSD Specification)**

The maximum storage volume as determined by the BASIX tool will be credited against the calculated OSD volume. **Additional storage beyond the determined BASIX volume will not be credited.**

**To achieve a full credit against the determined OSD volume rainwater re-use must be used for flushing of toilets as a minimum.**

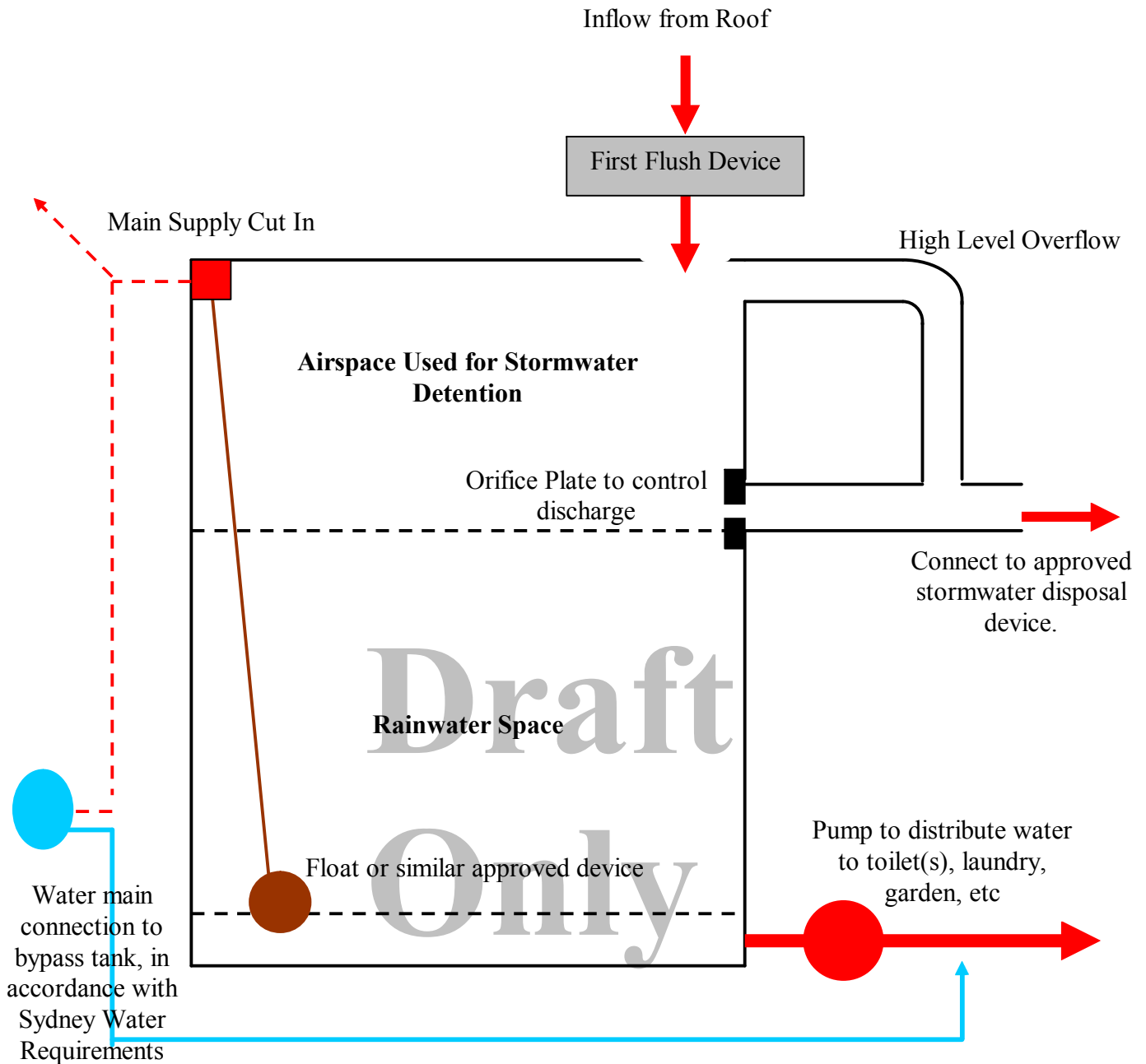
The stored rainwater can be used for non-potable usage such as watering of gardens, toilet flushing, washing cars, clothes washing etc. Combining OSD and rainwater re-use water in one tank is permitted. The tank can either be located above or below the ground, with typically the bottom of the tank being used for re-use whilst the top is used for OSD storage. Engineering details are to be submitted together with the drainage plans at the lodgement of the Development Application. Details are also to include to water re-use system including tank location and hydraulics plan.

A dual purpose OSD / rainwater re-use tank that collects only roof water from the roof may allow the majority of stormwater runoff from the site to be uncontrolled.

The design must ensure at least 50% of the site is routed through the OSD system.

**The calculated permissible site discharge (PSD) is not to be adjusted as determined by the OSD Technical specification.**

3.3 Typical Combined Rainwater/ On-site Stormwater Detention Tank



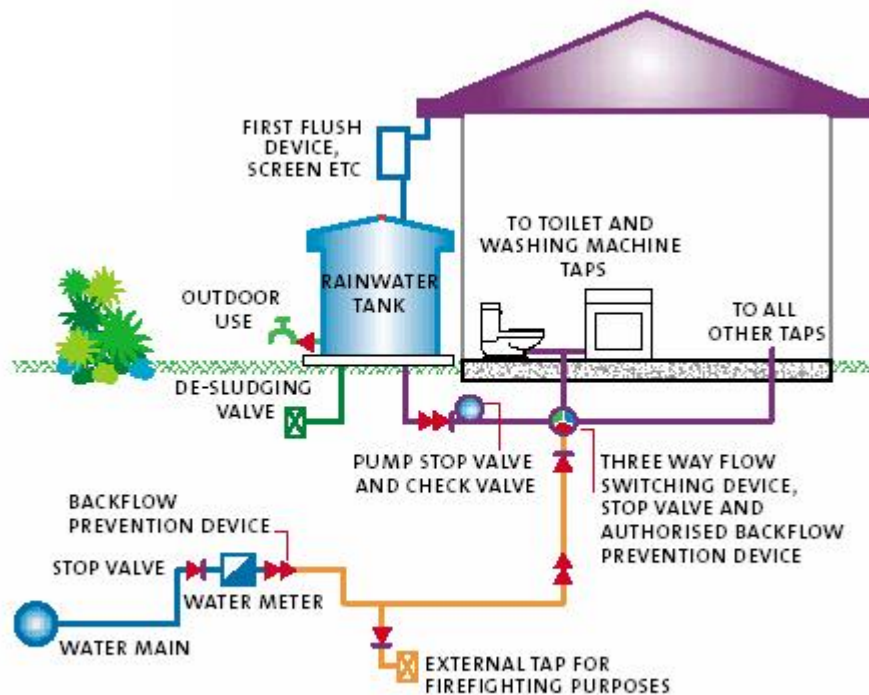


Diagram obtained from brochure 'Installing a Rainwater Tank' by Sydney Water.

### 3.4 Greywater re-use

**In addition to rainwater reuse for non-potable sources re-use of domestic grey water may be considered.** Grey water is not to be credited against the calculated OSD volume.

Grey water is by definition wastewater from showers, baths, hand basins laundry tubs and washing machines. It does not include wastewater from toilets, kitchen sinks and dishwashers. This is called **Blackwater**.

#### 3.4.1 Greywater re-use systems

##### - Greywater diversion devices (GDD)

Diversion devices allow the redirection of household grey water through plumbing fixtures that to sub-surface irrigation systems. The grey water can be directed back to the sewer when not required in the garden or during wet weather. The devices can either be gravity fed or rely on a pump and surge tank set up, which regulates the flows.

A greywater diversion device must be installed in accordance with the most recent edition of **NSW Health's Greywater reuse in sewerred single domestic premises**.

##### - Domestic greywater treatment systems (DGTS)

Domestic grey water treatment systems collect, store and treat greywater to a quality that is acceptable for direct uses onto the surface of the garden. The treatment process involves, the settling of solids, anaerobic digestion, aeration, and chemical treatment.

The DGTS must either by:

- 1) A greywater system device accredited by NSW Health in accordance with the DGTS Accreditation Guideline,
- 2) An aerated wastewater treatment system (AWTS) accredited by NSW Health in accordance with the NSW Healths AWTS guidelines or,
- 3) A facility that is purpose designed for a particular premise and approved in accordance with the Local Government (Approvals) Regulation 1999.

#### **4. Amendments**

Amended march 2007, to add Basix requirements for alterations and additions.

#### **5. Authorisation**

This Policy was adopted on 22 November 2005

It was last amended on 27 July 2007.

#### **6. Who is responsible for implementing this policy?**

Team Leader Development Engineering

#### **7. Document owner**

Director, Planning and Assessment Services

#### **8. File number**

EDMS: Policy Register

#### **9. Legislation and references**

- Environmental Planning and Assessment Amendment (Building Sustainability Index: BASIX) Regulation 2004
- Environmental Planning and Assessment Act 1979 No 203
- SEPP 25 Building and Sustainability Index Basix 2004

##### **9.1 Definitions**



None.