

Stormwater Management

What is Stormwater?

Stormwater is rainwater that flows over the ground after heavy rainfall or storms.

It can cause:

- Flooding or ponding in low areas.
- Damage to land and property.

Development (such as houses, roads, and paving) changes the nature and structure of the land. It replaces natural ground and vegetation and increases hard surfaces, which:

- Reduces water soaking into the soil.
- Increases runoff speed and volume.

The Shire of Donnybrook Balingup manages the local drainage network and reviews development plans. This includes:

- Construction and maintenance of local streets, roads and parking drainage systems.
- Assessing land development proposals for effective stormwater management.

Managing Stormwater

There is no single solution for managing stormwater. As the Shire covers a wide variety of terrains and soil types, each presents a different challenge which needs to be considered.

Existing Properties

Questions can arise from property owners around proper stormwater disposal and where the responsibility lies if stormwater enters their property and what to do when a problem develops.

There are typically three main issues with existing properties:

1. Water flowing to a neighbour

Stormwater collects and flows across property boundaries to an adjoining property, can be public or private.

- Buildings, walls, driveways, fences and other development can adversely affect the natural flow across properties.
- Property owners must manage their own stormwater in a way that does not adversely affect their neighbours.

- Do this by:
 - Directing downpipes and overflows away from neighbouring properties.
 - Use soak wells, storage pits, and rainwater detention tanks.
 - Connect to Shire’s drainage infrastructure (Shire approval needed). See ‘[Stormwater Detention](#)’ below.
- If development by landowners causes a concentrated flow of water onto a neighbouring property, it is their responsibility to manage that flow to ensure it leaves their property at or below pre-development rates.
- Diverting concentrated water onto a neighbouring land without permission may be considered a nuisance under Shire Local Laws.
- Disputes between neighbours are private matters and governed by Common Law. It is not managed by the Shire and they cannot become involved.
- Try contacting your neighbour for a respectful chat if there is an issue.

2. Natural water flow across land

Stormwater flows naturally across a lot and into adjacent properties.

- A landowner is typically not liable for surface water that flows naturally onto a neighbouring property due to the natural contours of the land.
- Properties receiving naturally flowing water must manage the water in, across and out of their property at the same natural volume and velocity (pre-development) as which it entered.

Tips:

- *Raise building floor levels above flow paths to ensure water moves around buildings.*
- *Keep natural drainage paths unhindered.*
- *Get professional advice if unsure how to deal with overland flow (i.e. a civil engineer or drainage consultants).*

3. Water from Shire land or roads

On occasions, stormwater enters private property from Shire’s Infrastructure, such as roads, parks or drains at rates greater than pre-development. This may be caused from:

- The drainage system overflowing (exceeding capacity) in heavy rain events, or
- The drainage system becomes blocked.

If this happens:

- Contact the Shire to report the issue.
- Take photos/videos of the issue and excess water if possible.

- The Shire will inspect the area and investigate the cause and possible solutions.
- Short term measures may be possible to address the immediate issue, while long-term rectification and modification can be scheduled.

Crossover (driveway) responsibility:

- Landowners must ensure the crossover is high enough to retain water on the road/street surface
- Landowners must keep their crossover culverts clean and clear of obstruction
- The Shire maintains open roadside drains.

New Developments

All new developments must manage their stormwater.

Residential:

- A stormwater management plan should be submitted with the building application. If the development requires planning approval it may be identified as a condition of the approval. A Stormwater Management Plan is typically prepared by suitably qualified and/or experienced professionals with expertise in drainage, hydrology, and water-sensitive design. This can include civil contractors/plumbers with experience in the management of stormwater and the capacity to produce a detailed plan outlining how your stormwater will be managed, for submission to the Shire.
- Development on soils that have limited water absorption will require stormwater detention.
- Development on soils that allow effective infiltration can consider the use of soak wells and leach drains as suitable solutions, provided consideration is given to what will occur when capacity has been exceeded.

Commercial/industrial:

A stormwater management plan is typically required to be submitted with the planning application for assessment by the Shire.

Stormwater Detention

Stormwater detention is the temporary collection of rainwater that falls on a property and releases it slowly. Urban growth and development create increased run-off, which puts pressure on existing drainage infrastructure. The Shire requires stormwater detention in areas where soak wells or similar in-ground disposal of water is deemed unsuitable.

This helps:

- Reduce downstream flooding.
- Protect drainage systems from congestion.
- Mimic natural water flow and predevelopment conditions.

How to Meet Shire Requirements

It is the responsibility of the landowner to ensure all run off water from hard surfaces is collected and directed to an onsite detention system before discharging off the property.

- Hard surfaces include:
 - Roofs
 - Driveways
 - Paved areas
- Store it on-site using:
 - Underground storage pits
 - Modular storage
 - Rainwater tanks with buffer storage, and/or
 - Rain gardens
- After storage, water can then be released slowly using a small outlet pipe (30 - 50mm) and discharged to:
 - Rain gardens
 - Existing underground Shire drainage
 - Street surface, or
 - Open drains in the Shire verge

Written Shire approval is strictly required if your runoff cannot be contained on-site or if you intend to connect to the council's public drainage network.

Storage Requirements

As a general rule:

- **0.5 m³ of storage per 100 m² of hard surface**

Alternatively, the storage can be calculated and designed by a civil engineer (or equivalent) to the satisfaction of the Shire.

Information Sheet

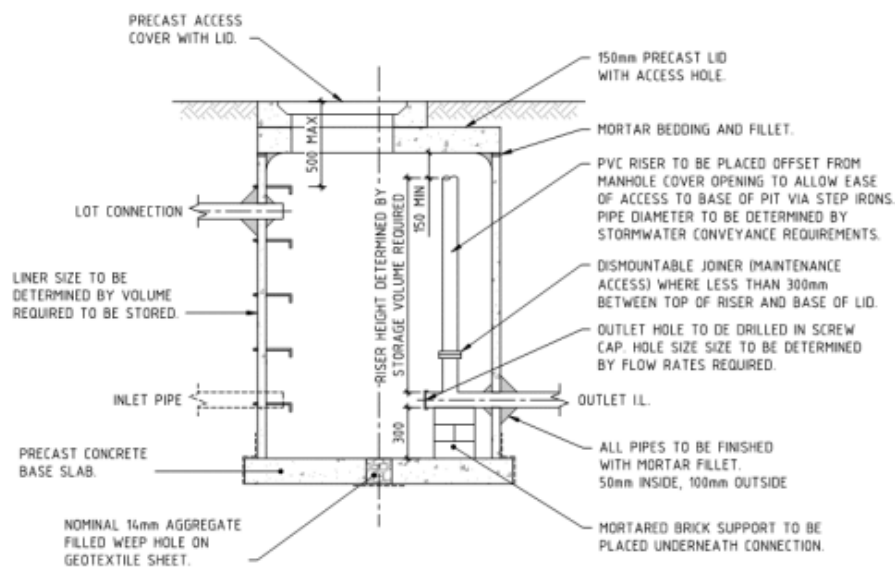
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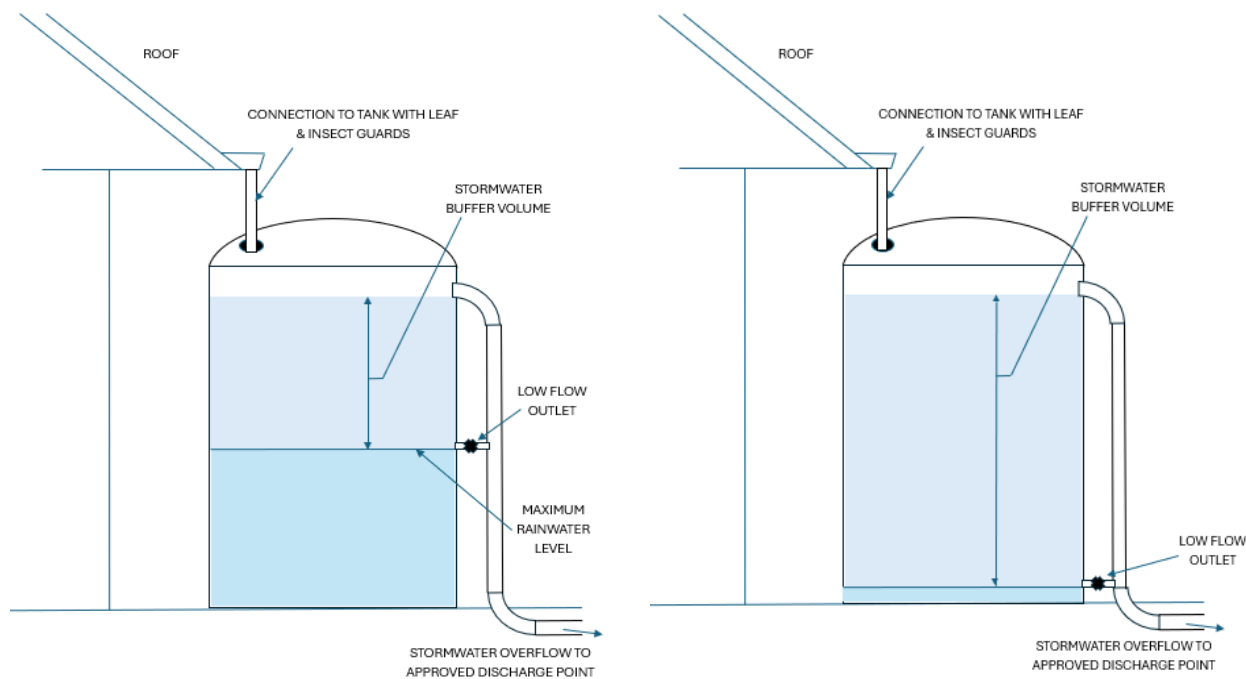
If the impervious area is unknown, the following table can be used:

Total Land Area (m ²)	300	400	500	600	700	800	900	1000
Required storage volume (m ³)	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0

Underground storage pit (example only)



Mid-level and low-level above ground tank systems (example only)



The stormwater buffer or storage volume shown in the examples is designed to temporarily hold water and release it slowly from the property. This buffer area should remain empty except during and shortly after rainfall events.

In above-ground tank systems with a stormwater buffer, the purpose is to control and slow the rate at which water is discharged. This differs from a standard rainwater tank, which simply stores water and does not regulate how quickly it is released.

Frequently Asked Questions

Concentrated water is coming onto my land from my neighbour's property. What do I do?

If a neighbour has altered their land, clearing or downpipes, causing concentrated water to flood your property, it is a civil matter between neighbours. Talk to your neighbour, attempt mediation or seek legal advice.

Concentrated water coming from council roads or public land. What do I do?

Contact the Shire. Provide evidence with photos and videos if possible.

Water is pooling on my property, what can I do?

The responsibility for the management of natural pooling lies with the landowner. You may need to hire a local earthmover or plumber to install soak wells, French drains or retaining well to safely capture and disperse the water. You can naturally mitigate runoff by building swales, planting water heavy trees or creating rain gardens to slow and absorb water.

How do I find out more information?

You may contact the Shire's Works and Services department on (08) 9780 4200 or via email at: shire@donnybrook.wa.gov.au.