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Sustainable Gardening

How to create a beautiful & waterwise garden

Town of Cottesloe

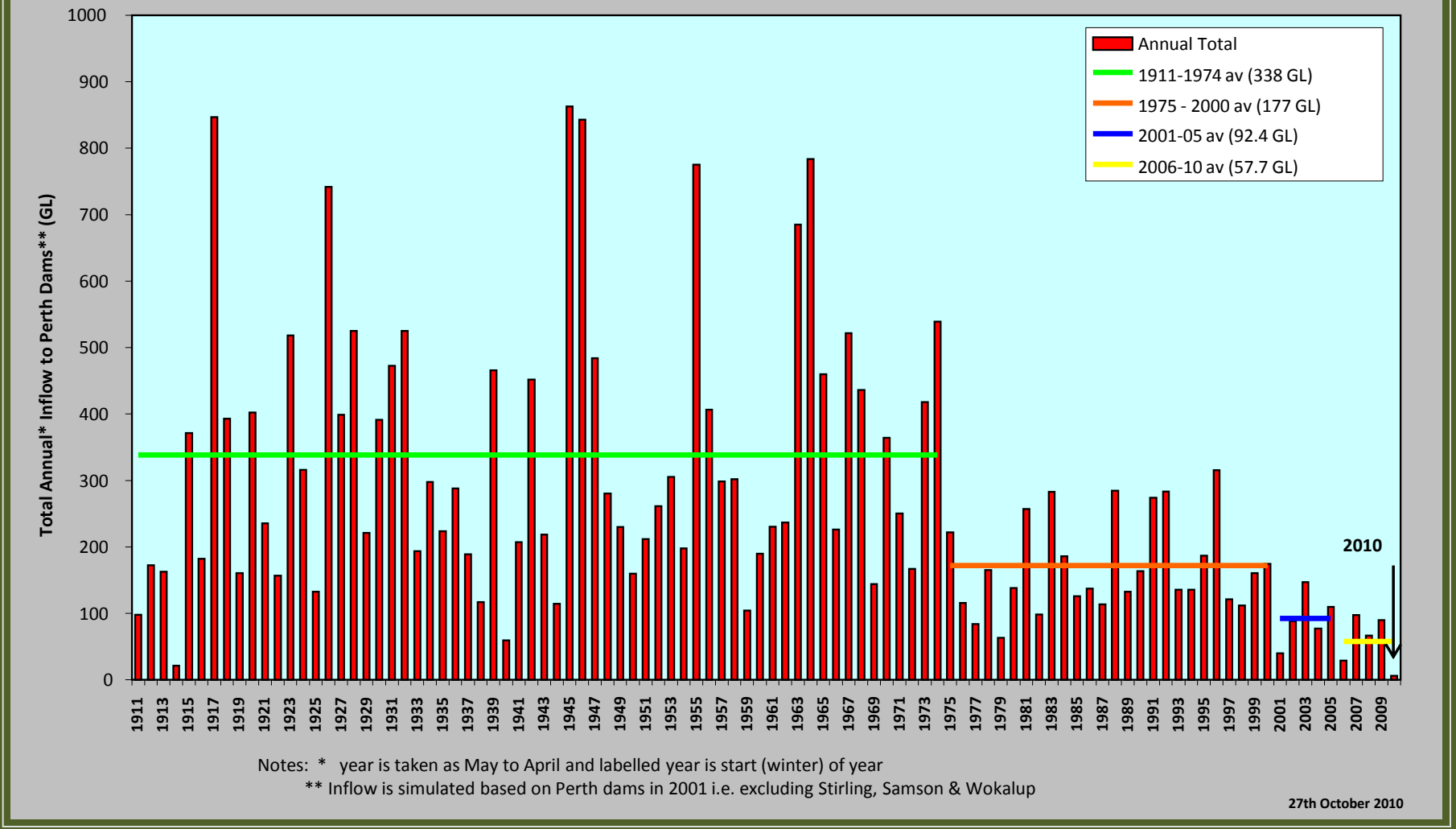
This resource was developed by the Towns of Cottesloe and Mosman Park. Keep turning the pages for useful information and hints on Waterwise Gardening.

The Towns of Cottesloe and Mosman Park and wish to acknowledge the Great Gardens team and Water Corporation for information and images contained within this resource. Information and links to websites are provided for information only. The Towns of Cottesloe and Mosman Park are not responsible for their content and does not endorse products advertised on the websites.

Why sustainable gardening?

- In 2010 Perth had its driest winter on record. We also live on the edge of a desert.
- We only had had **13 gigalitres** (GL) water flow into our dams - compared with an **average of over 100 GL** each year over the past decade
- If 2011 is as bad, there simply won't be any water left in our dams or to recharge our underground aquifers. And that could mean no water for our gardens at all
- By gardening sustainably we can reduce water and fertiliser use and maintenance costs. This leaves much more time to actually enjoy the garden!

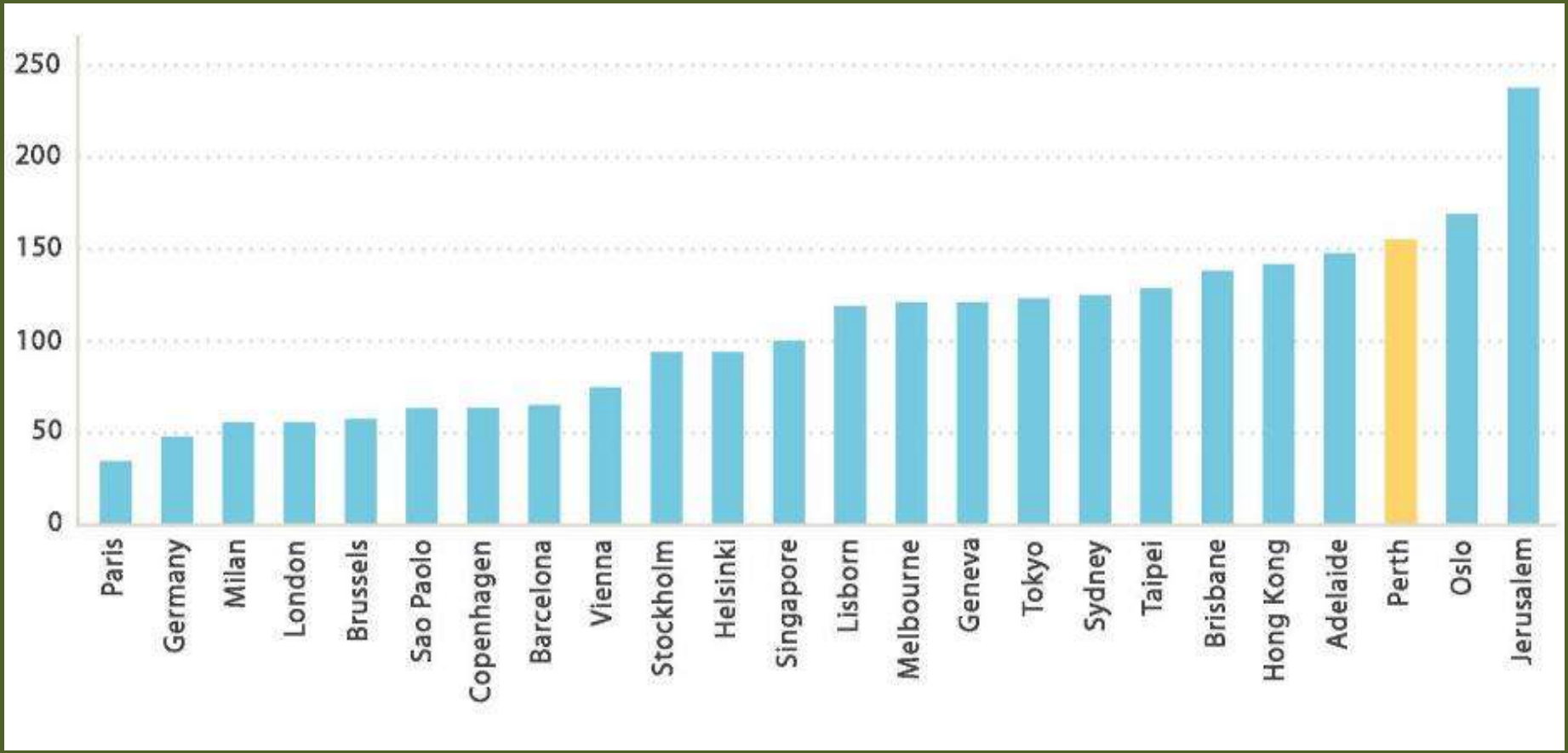
Streamflow into our dams since 1911



Source: Water Corporation, 2011

How Perth's water use compares internationally

(KL per person per year)



Source: Water Corporation, 2011

Water

- Almost **HALF (44%)** of total household water is used outside the home
- Water can be wasted in three ways; 1) through evaporation and wind drift, 2) putting water where it is not needed such as onto paths, 3) watering for too long
- Water only once on your rostered day, before 9am or after 6pm, and don't overwater – it is actually a waste
- Rosters are designed with our climate in mind. We should water just enough to penetrate the top 30cm of soil which is where the feeder roots are
- Water in the morning – this allows the water to soak to the roots and be available to the plant throughout the day when they need it most
- For pop up sprinklers, keep to 10 minutes per station
- During winter your irrigation system should be turned off

Irrigation Systems

This table presents the water efficiency of various irrigation systems

Irrigation emitter[1] efficiency rating[2] 💧 poor 💧💧💧💧 very good

Emitters	Applying the right amount	Watering at the right time	Even watering	Water to the root zone
 Hand-held sprayers and hoses	💧	💧💧💧	💧	💧
 End-of-hose sprayers and sprinklers	💧	💧💧💧	💧	💧
 Micro sprayers	💧	💧💧💧	💧	💧
 Installed sprayers and rotating sprinklers	💧💧💧	💧💧💧	💧💧💧	💧💧
 Drippers and drip line including subsurface	💧💧💧	💧💧💧	💧💧	💧💧💧💧

[1] An emitter is defined here as any watering device including a nozzle on the end of a hose, a sprinkler on a hose, a dripper, a fixed sprayer or a pop up sprayer. It is the piece of equipment that directs water onto the garden. [2] The ratings in this table are based on the irrigation system being correctly designed, installed and operated.

Source: Water Corporation, 2011

Garden Bores

- Garden bores draw water from shallow groundwater aquifers and are generally a better alternative to scheme water for use on gardens
- In Cottesloe and Mosman Park, the aquifer is very thin (less than 10m) and is perched directly above saltwater. The freshwater lens is very vulnerable to saltwater intrusion
- Thus, we must still conserve our precious groundwater so stick to your regular watering days
- Why not share a bore with your neighbour? You can share the cost of installing the bore as well as save money and water

Mulch

- Mulch is **ESSENTIAL**
- Mulching your garden reduces evaporation and is enormously beneficial for all plants
- Up to 7.5cm of a good waterwise mulch can reduce evaporation loss by as much as 70%
- Choose a waterwise mulch - soft and fine mulches can cause greater moisture loss than bare soils
- A good way to check if mulch is waterwise is if it hurts bare feet when you walk on it. Or, look for mulch with the Smart Approved WaterMark

Which is the waterwise mulch?

ANSWER: mulch on the left hand side

Soil Improvement

- Good soil is the foundation of a good garden and is the **KEY** to healthy plant growth
- WA's sandy soils/sands are very nutrient poor and do not retain water well
- The best soil improvers are simply organic matter - animal manures, worm farm residue, bagged soil improvers and composts
- Adding bentonite clay will help the soil retain water
- The easiest time to improve soil is during planting, when it can be thoroughly mixed with the top 30cm of soil. But you can still apply from the top to an established garden or lawn. Just spread a layer of soil improver (about 2cm thick) and then cover it with a layer of waterwise mulch

Wetting Agents

- You have probably seen sprinklers going and water running down the side of the road and straight down the drain. This not only wastes water – it means the garden is still thirsty!
- Soil wetting agents break down the water resistance that soils and lawns build up and allow water to penetrate to the roots
- Apply wetting agents to lawns and gardens in mid spring and again in mid summer
- To make the most of your wetting agent apply soil improvement and mulch
- Look for the Smart Approved WaterMark

Smart Approved WaterMark

Waterwise Plants

- If you are planting new plants, choose waterwise plants, such as natives that have their origins in WA
- Waterwise plants are perfectly adapted for our climate and require a lot less water than other plants

They are also beautiful…


Grevillea preissii


Philotheca spicata


Thelymitra campanulata


Calestasia narragara


Caladenia nana


Anigozanthus


Silky-leaved blood flower


Cats paw


Sea-urchin Hakea


Cockies' tongue


Firewood Banksia


Berry Saltbush

The Town of Mosman Park and Cottesloe offer the **Native Plant Subsidy Scheme** in May each year. Check your local Council website for more information

Lawn

- **A LOT** of water is used on lawns
- We can reduce water use with good design, soil improvements and selecting waterwise varieties
- An even more important question is - how much do you really need? Consider how much lawn you actually use and for the areas you don't use consider replacing it with native plants and mulch
- Waterwise species include - Couch, Buffalo, Saltene, Kikuyu
- Lay lawn in the cooler months and grow it longer
- When planting a new lawn – add soil improvers in top 15cm and apply small amounts of water frequently

Verge or Nature Strip

- Get rid of unnecessary lawn
- There are many verge/nature strip lawns that aren't being utilised even though a lot of time is being spent watering, fertilising, mowing and weeding them
- A verge planted with waterwise plants or groundcovers is not that difficult or expensive to do! Plus they look lovely

Most Councils require approval for any kind of verge treatment

Always check before starting any works

Biodiversity

- The structure of your garden is important – willy wag tails jump from low to medium to high plants. They fly no further than 50m!
- Shrubby native plants provide habitat for honey eaters, lizards, butterflies, bees and other fauna
- Our front and backyards can create corridors for native animals and connect remnant bushland areas

Container gardens

- **Size** - make sure there is enough room in the container for the plants and soil
- **Drainage** - always have drainage holes or at the very least, a 1-2 inch layer of gravel at the bottom of the container
- Use a good **potting mix or compost**
- Choose **drought tolerant** species - most container gardens require daily watering in hot weather
- Balance the **size** of your plants and container
- Try not to **site** containers in full mid-day sun. **Group** together
- **Watering needs** – check daily. Use a **sealant** to prevent water loss through pot

Give your garden an edge with funky recycled options!

IN SUMMARY

1. Dig a hole at least 30cm deep and as wide as possible
2. Remove half of the soil from the hole and replace with a mixture of clay (suitable for sandy soils) and soil improver (eg, compost, animal manure).
3. Place plants into the holes and create a shallow dish to direct water to the roots
4. Add soil wetting agent (as per product directions) while watering in plants
5. Add a 10cm layer of waterwise mulch
6. Water once a week during summer in their first two years

How you can save 60 litres of water a day at home, work and in the community.

In the summer of 2011, the Water Corporation asked everyone in Perth to save 60 litres of water, per person, per day. Thanks to your outstanding efforts we have reached our initial target of 13 billion litres - one month early.

In order for our dams to fill this winter we must abide by the Winter Sprinkler Ban that is effective from June to August each year.

For more tips and ideas on saving water in the garden, please contact the Water Corporation:

www.watercorporation.com.au

13 10 39 (Waterwise Helpline)

For Council specific information, contact the Sustainability Officers at the Towns of Cottesloe and Mosman Park:

Town of Cottesloe: 9285 5000

Town of Mosman Park: 9384 1633