



Wetland Health

What's in our water?

Protecting Your Wetlands

The City of Melville is home to the northern section of the Beeliar chain of wetlands. These wetlands support a great richness and abundance of wildlife, providing habitat, refuge, breeding grounds and sources of food for animals. The Wetlands are surrounded by urban development and are suffering due to human impacts and the effects of climate change.

Stormwater entering the lakes and wetlands through our drainage network often contains pollutants, including rubbish, nutrients, metals, oils and organic matter. High levels of nutrients (in particular phosphorus and nitrogen) can lead to excess algal growth and algal blooms. The influx of nutrients and heavy metals from road and garden runoff, and the loss of fringing vegetation (which filters pollutants) can result in reduced dissolved oxygen and conditions that favour the spread of Botulism. Botulism is a naturally occurring bacteria in the mud that can cause bird and fish deaths and affect domestic animals.

We monitor the state of our wetlands annually, and have a Water Quality Improvement Plan. The City has implemented a number of projects to improve water quality.

For more information, visit www.melvillecity.com.au/water

Tips to reduce pollution in stormwater run-off

- ✎ Reduce fertiliser use on verge gardens, and avoid fertilising right before large rainfall events
- ✎ Wash your car on the lawn as opposed to a hard surface to allow for infiltration and to prevent detergents and chemicals from entering stormwater drains
- ✎ Collect and compost organic matter instead of sweeping or blowing onto the streets
- ✎ Clean up sand, dust and other construction materials before they enter the drains
- ✎ Reduce hard surfaces on your property, such as paving, concrete and artificial turf to reduce volume of surface run-off into drains
- ✎ Don't tip paint, thinners, oil, herbicides or other chemicals down the drain. Take these to your local hazardous waste drop off point.
- ✎ Backwash your pools into a soakwell, not into a roadside drain



How you can help

“The Water Cycle”

How’s it all connected

1 RAIN - Water enters the system via precipitation (such as rain and hail) into our dams, lakes, wetlands and ground water. Perth is experiencing a drying climate, which is reducing water availability on average.

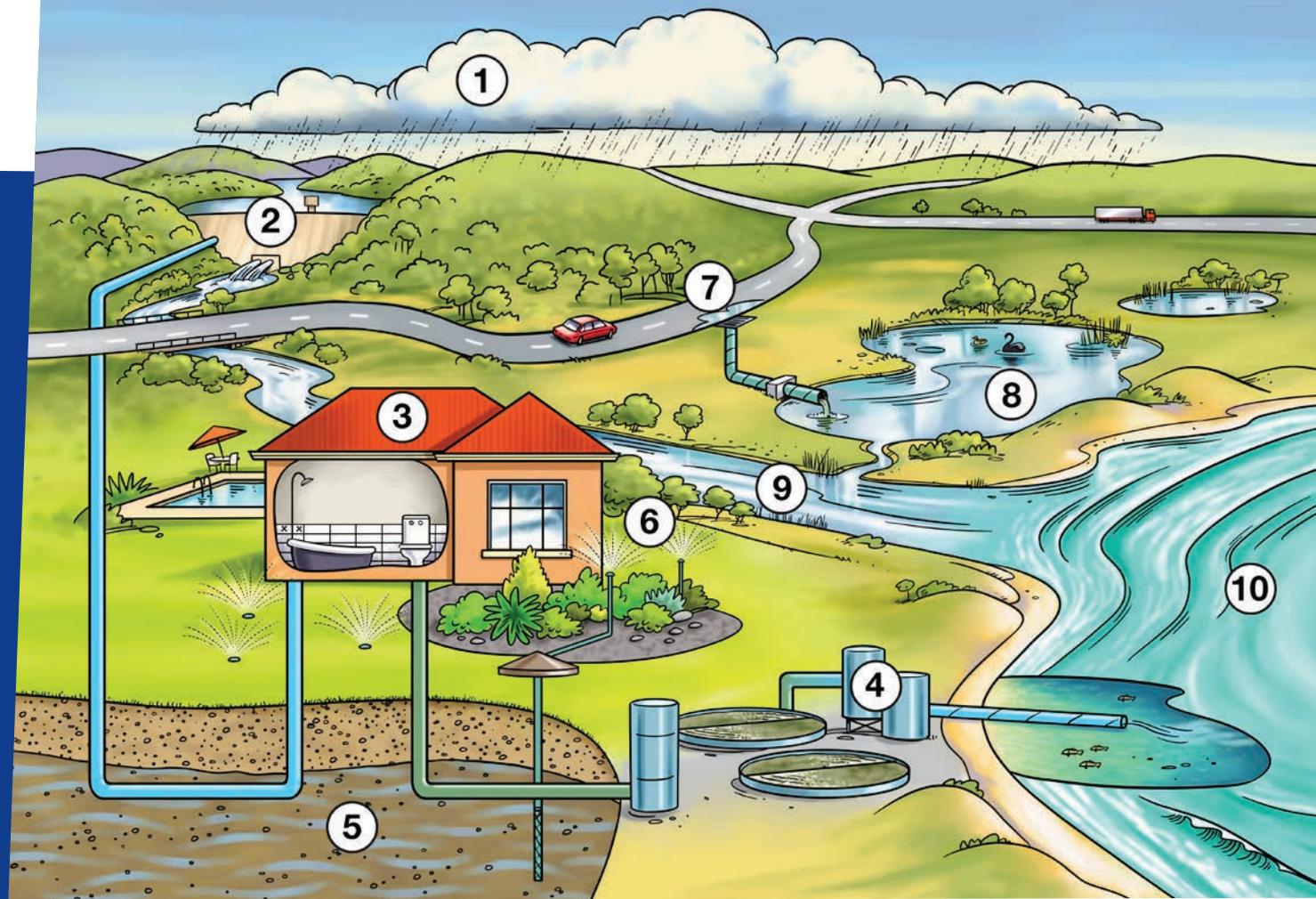
2 DAMS - Dams can alter the down-stream flows of the riversystem. Some of our large dams are on tributaries which feed the Swan and Canning River. Decreasing dam water levels has meant an increase in reliance on ground water and de-salination water.

3 HOUSEHOLD - Water has many uses within the household, and both the amount of water used and quality of water have an impact on the environment. Many products used within the household add pollutants to the waste water or stormwater systems, including Nitrogen and Phosphorus.

4 WASTE WATER - Household wastewater (sewage) enters the wastewater treatment, with over 70% of treated wastewater discharged to the ocean, and the remaining recycled through ground water recharge.

5 GROUND WATER - Groundwater refers to the water held within the soil and differs in depth depending on the location; this water feeds surface water in our natural wetlands. Groundwater levels are affected by climate, infiltration, abstraction and human activities on the surface (e.g. agricultural, industrial and urban processes).

6 GARDENS - According to Water Corporation Australia, more than 40% of household water use is on our gardens or outside the home. Some households use bore-water systems to reticulate their garden which draws directly from the groundwater table. Rainwater tanks are a good alternative.



7 STORMWATER DRAINS - Pollution and litter can enter wetlands from our roads. Stormwater run-off goes DIRECTLY into our wetlands & sumps, often without filtration.

8 WETLANDS - Feeding wildlife, deciduous trees, grass clippings and dog poo can also contribute excess nutrients in the water. High nutrients can result in algal blooms, decreased oxygen availability and avian botulism. Native sedges and rushes act to stabilise banks, filter nutrients and heavy metals from the water and provide habitat.

9 10 RIVER-OCEAN - Pollution from wetlands and drains ultimately feeds into the river system and then into the ocean. Rubbish and plastic can break down into smaller particles known as micro-plastics, which never degrade beyond a certain size. Micro-plastics can enter the food-chain and have significant effects on biodiversity.

