

Parramatta River Conceptual Model

Wet Weather

Modified sub-catchments



- Stormwater infiltration rates are low, resulting in large runoff volumes.
- Stormwater travels rapidly along concrete lined channels.
- Large volumes of sediment, nutrients and contaminants are transported directly to the river.

Natural sub-catchments



- Stormwater infiltration rates are higher, reducing runoff.
- Stormwater flows are slowed in water holes and deeper section of natural creeks.
- Lower volumes of sediment, nutrients and contaminants are transported to the river.



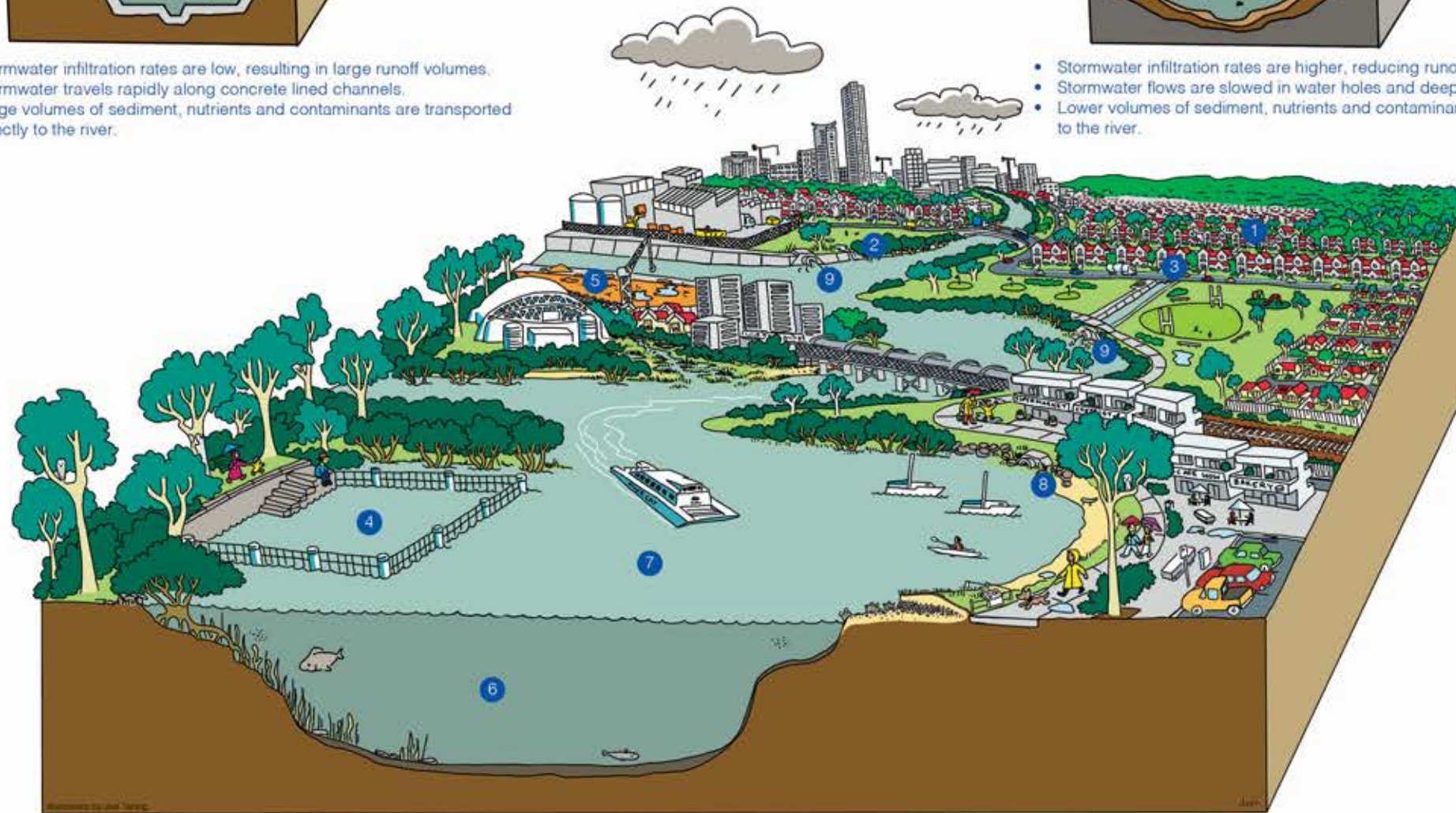
- 1 Stormwater enters the wastewater system through infiltration and illegal stormwater connections (eg roof downpipes). As a result wastewater is discharged contributing nutrients and microbial contaminants to the river.



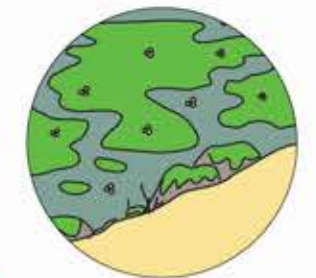
- 2 Animal faeces from parks, properties and bushland are washed into waterways.



- 3 Stormwater runoff from urbanised areas transports large volumes of nutrients, chemical contaminants, rubbish and organic matter into creeks and stormwater channels.



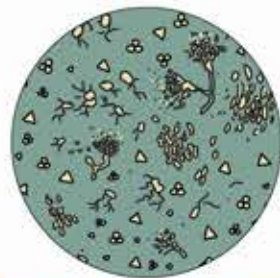
- 9 Contaminants, organic matter and sediments accumulate around stormwater outlets, creating pollution hot spots.



- 8 High nutrient loads from stormwater runoff may lead to algal blooms.



- 7 High stormwater flows transport microbial and chemical contaminants along the river.



- 4 Levels of microbial and chemical contaminants in the water are elevated during wet weather, making it unsuitable for swimming.



- 5 Poor management of sand, soil and other materials on building sites results in sediments, nutrients and contaminants washing into the river.



- 6 Increased sediment loads create turbidity, impacting the health of aquatic organisms and affecting water clarity.