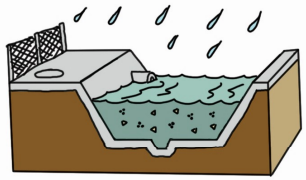
Parramatta River Conceptual Model
Wet Weather

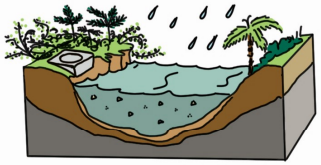
Sydney WATER

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

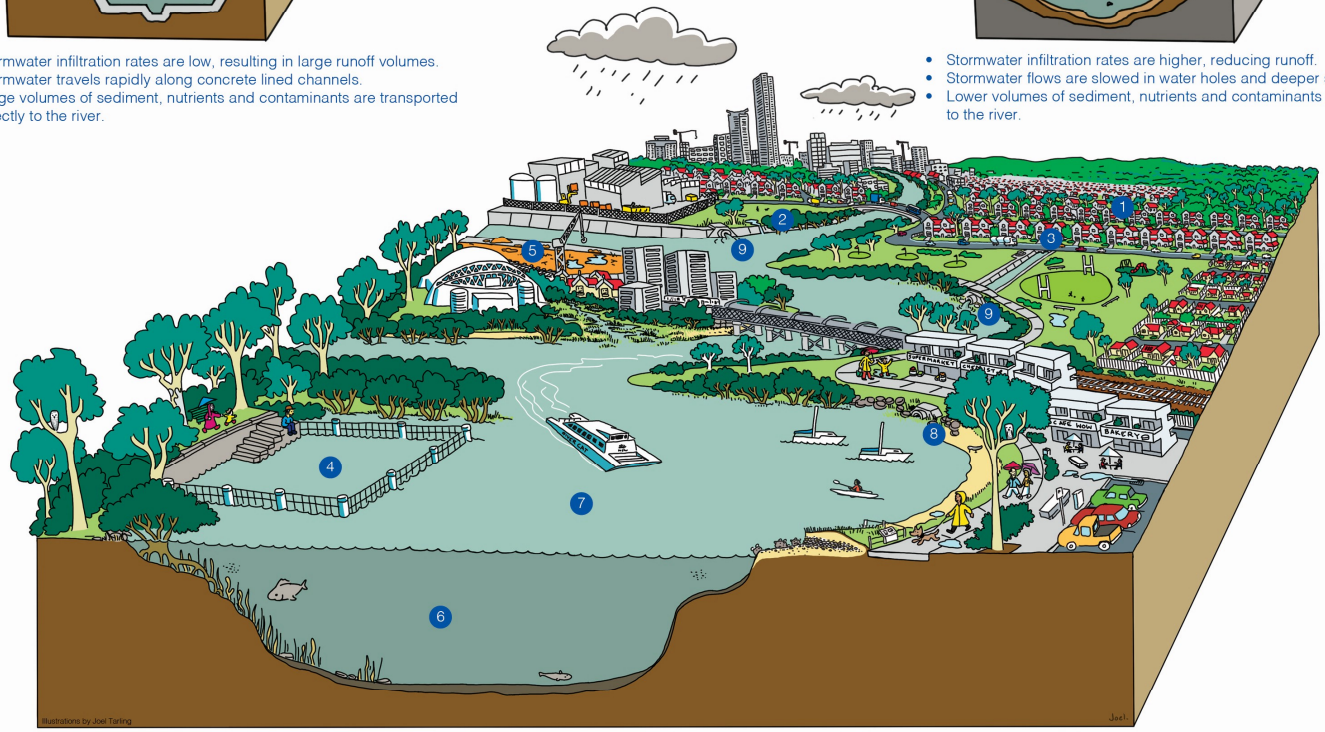


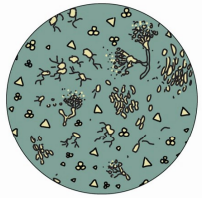
- Stormwater infiltration rates are higher, reducing runoff.
- Stormwater flows are slowed in water holes and deeper section of natural creeks.
- Lower volumes of sediment, nutrients and contaminants are transported to the river.

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.

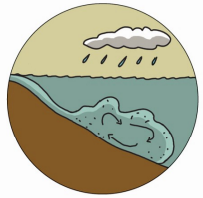
3. Stormwater runoff from urbanised areas transports large volumes of nutrients, chemical contaminants, rubbish and organic matter into creeks and stormwater channels.





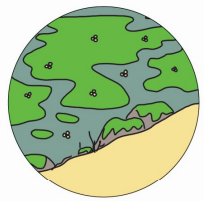
4. Levels of microbial and chemical contaminants in the water are elevated during wet weather, making it unsuitable for swimming.

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

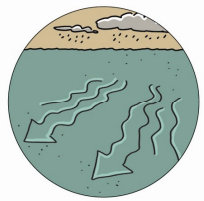


6. Increased sediment loads create turbidity, impacting the health of aquatic organisms and affecting water clarity.

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.