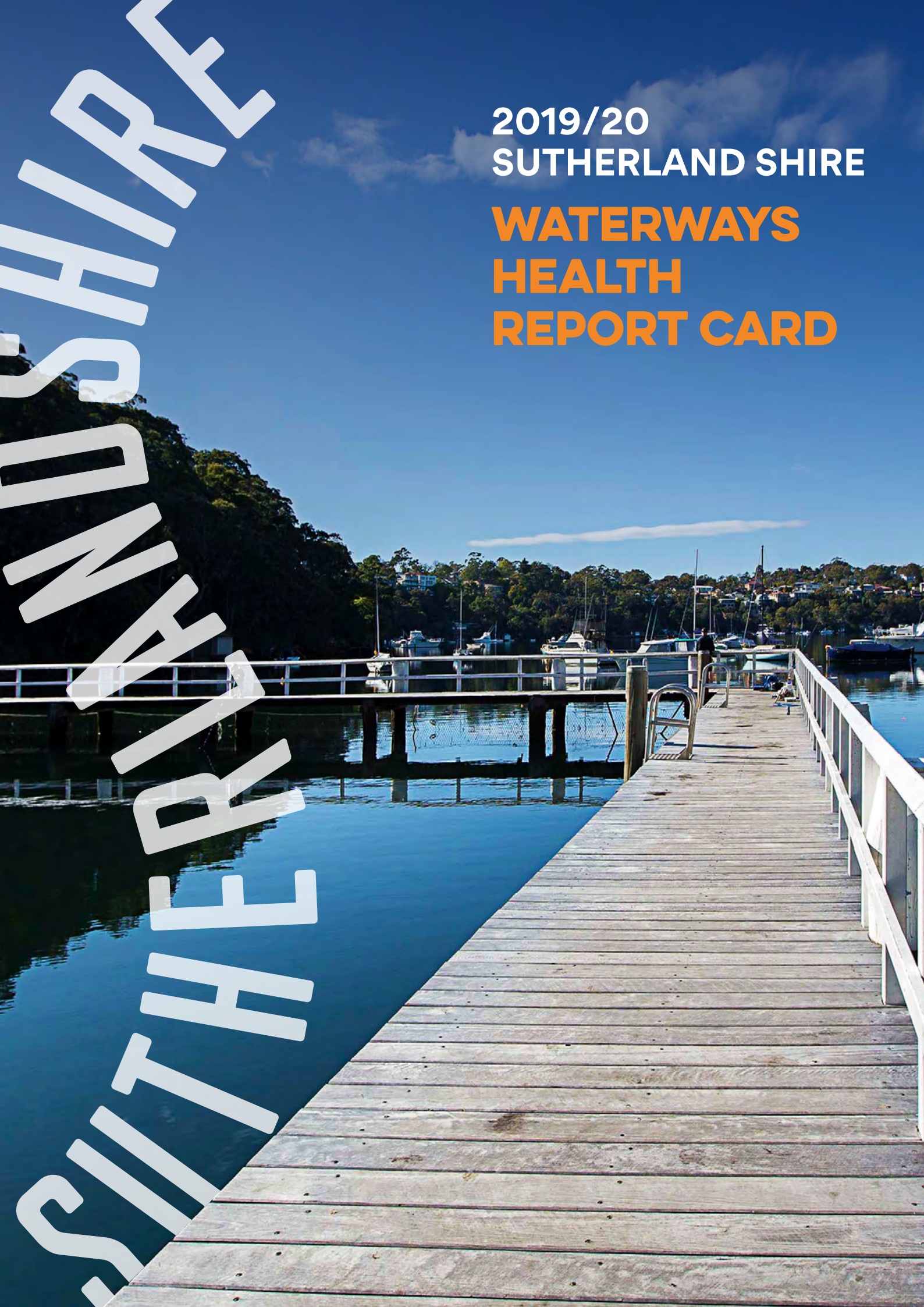


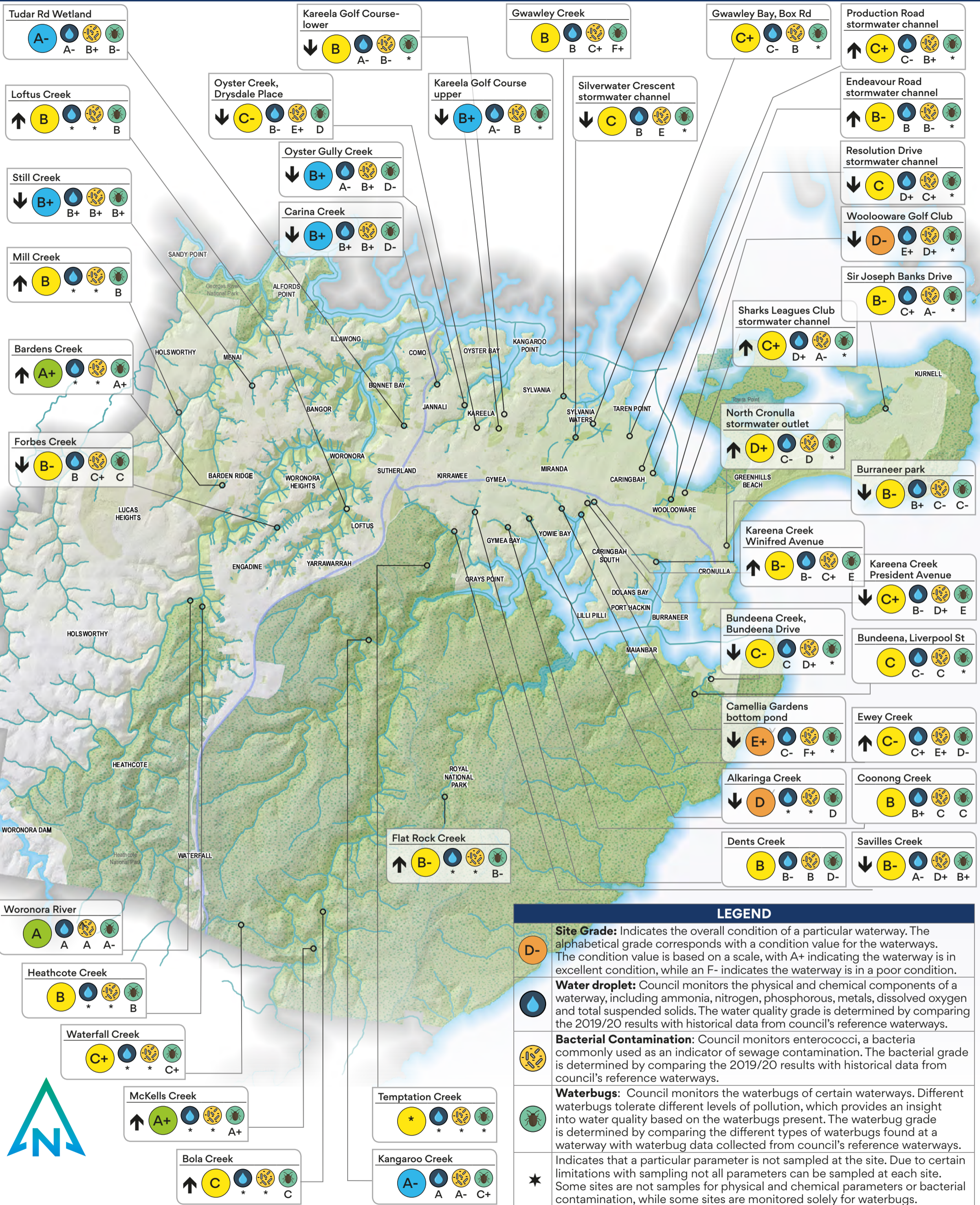
SUTHERLAND SHIRE

2019/20  
SUTHERLAND SHIRE

**WATERWAYS  
HEALTH  
REPORT CARD**

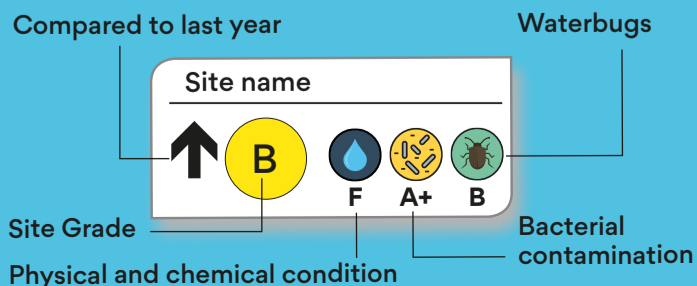


# WATERWAY HEALTH GRADES



## LEGEND

	<b>Site Grade:</b> Indicates the overall condition of a particular waterway. The alphabetical grade corresponds with a condition value for the waterways. The condition value is based on a scale, with A+ indicating the waterway is in excellent condition, while an F- indicates the waterway is in a poor condition.
	<b>Water droplet:</b> Council monitors the physical and chemical components of a waterway, including ammonia, nitrogen, phosphorous, metals, dissolved oxygen and total suspended solids. The water quality grade is determined by comparing the 2019/20 results with historical data from council's reference waterways.
	<b>Bacterial Contamination:</b> Council monitors enterococci, a bacteria commonly used as an indicator of sewage contamination. The bacterial grade is determined by comparing the 2019/20 results with historical data from council's reference waterways.
	<b>Waterbugs:</b> Council monitors the waterbugs of certain waterways. Different waterbugs tolerate different levels of pollution, which provides an insight into water quality based on the waterbugs present. The waterbug grade is determined by comparing the different types of waterbugs found at a waterway with waterbug data collected from council's reference waterways.
	Indicates that a particular parameter is not sampled at the site. Due to certain limitations with sampling not all parameters can be sampled at each site. Some sites are not samples for physical and chemical parameters or bacterial contamination, while some sites are monitored solely for waterbugs.



This report card provides a visual snapshot of the condition of waterways in and around the shire for 2019/20.

The grades are calculated from council's Strategic Water Monitoring Program (SWaMP). The alphabetical grades represent the 2019/20 result for that particular waterway.

WATER QUALITY GRADES	
A+ to A	Excellent
A- to B+	Good
B to D+	Fair
D to F-	Poor
Fail	Degraded
*	Not sampled

## ABOUT THIS REPORT CARD

Community surveys have told council that residents want catchments managed effectively to improve the cleanliness, health and biodiversity of the Shire's waterways.

Council monitors our waterways through its Strategic Water Monitoring Program (SWaMP). In 2017/18 council expanded the traditional physical and chemical SWaMP analysis to include freshwater macroinvertebrates (waterbugs) as an additional indicator of stream health.

This report card provides a visual snapshot of the condition of the shire's waterways for 2019/20. The alphabetical grades provide a familiar rating system to aid in the interpretation of scientific information. To understand how the grades are determined please see SWaMP's Objectives, Sampling Methodology and Data Analysis document, which can be found on Council's water quality webpage [sutherlandshire.nsw.gov.au/Outdoors/Environment/Waterways/Water-Quality](http://sutherlandshire.nsw.gov.au/Outdoors/Environment/Waterways/Water-Quality)



Sampling Loftus Creek



Collecting waterbugs



Sediment contamination



Detergent contamination

## PRESSURES FACING URBAN CREEKS

Creeks flowing through urban catchments generally suffer from increases in sediment, nutrients (nitrogen and phosphorous), metals and rubbish. They also experience a reduction in biological diversity and habitat complexity.

Urban catchments have roads, roofs, driveways and other types of impervious surfaces that direct rainwater, usually via a piped network, into local creeks. This process bypasses water's natural pathway and introduces the contaminants found on impervious surfaces into local waterways.

## MANAGING URBAN WATERWAYS

Sutherland Shire Council's 2019/20 Waterways Rehabilitation Program included a reach of Ewey Creek, which flows from Miranda and into Port Hacking's Yowie Bay. Rehabilitation works included creek bank stabilisation, including planting of more than 4,000 native plants grown at Council's Community Nursery. Woody weeds, exotic vines and scramblers were treated and removed to allow native plants to flourish. The works will help improve water quality of Ewey creek and add to the area's aesthetics and biodiversity.

Due to the Covid-19 pandemic some macroinvertebrate sites were unable to be sampled during autumn.



Coonong Creek



Dragonfly - *Diplacodes bipunctata*