



Beachwatch

State of the beaches 2022–23

Sydney Region

© 2023 State of NSW and Department of Planning and Environment (DPE)

With the exception of photographs, the State of NSW and Department of Planning and Environment are pleased to allow this material to be reproduced in whole or in part for educational and non-commercial use, provided the meaning is unchanged and its source, publisher and authorship are acknowledged. Specific permission is required for the reproduction of photographs.

The Department of Planning and Environment (DPE) has compiled this report in good faith, exercising all due care and attention. No representation is made about the accuracy, completeness or suitability of the information in this publication for any particular purpose. DPE shall not be liable for any damage which may occur to any person or organisation taking action or not on the basis of this publication. Readers should seek appropriate advice when applying the information to their specific needs.

Every effort has been made to ensure that the information in this document is accurate at the time of publication. However, as appropriate, readers should obtain independent advice before making any decision based on this information.

All content in this publication is owned by DPE and is protected by Crown Copyright, unless credited otherwise. It is licensed under the Creative Commons Attribution 4.0 International (CC BY 4.0), subject to the exemptions contained in the licence. The legal code for the licence is available at Creative Commons.

DPE asserts the right to be attributed as author of the original material in the following manner: © State of New South Wales and Department of Planning and Environment 2023.

Front cover: Camp Cove, Sydney Harbour (Cameron Board/DPE)

Published by:

Environment and Heritage

Department of Planning and Environment

Locked Bag 5022, Parramatta NSW 2124

Phone: +61 2 9995 5000 (switchboard)

Phone: 1300 361 967 (Environment, Energy and Science enquiries)

TTY users: phone 133 677, then ask for 1300 361 967

Speak and listen users: phone 1300 555 727, then ask for 1300 361 967

Email: info@environment.nsw.gov.au

Website: www.environment.nsw.gov.au

Report pollution and environmental incidents

Environment Line: 131 555 (NSW only)

or info@environment.nsw.gov.au

See also www.environment.nsw.gov.au

ISBN 978-1-923076-63-1

EHG 2023/0279

July 2023

Contents

Sydney region summary 2022–2023	1
Monitoring water quality for swimming in New South Wales	1
Rainfall impacts	2
Northern Sydney (Pittwater to Manly)	10
Overall results	10
Palm Beach	16
Whale Beach	17
Avalon Beach	18
Bilgola Beach	19
Newport Beach	20
Bungan Beach	21
Mona Vale Beach	22
Warriewood Beach	23
Turimetta Beach	24
North Narrabeen Beach	25
Narrabeen Lagoon (Birdwood Park)	26
Bilarong Reserve	27
Collaroy Beach	28
Long Reef Beach	29
Dee Why Beach	30
North Curl Curl Beach	31
South Curl Curl Beach	32
Freshwater Beach	33
Queenscliff Beach	34
North Steyne Beach	35
South Steyne Beach	36
Shelly Beach	37
Barrenjoey Beach	38
Paradise Beach Baths	39
Clareville Beach	40

Taylors Point Baths	41
Bayview Baths	42
Elvina Bay	43
North Scotland Island	44
South Scotland Island	45
The Basin	46
Great Mackerel Beach	47
Central Sydney (Bondi to Little Bay & Sydney Harbour)	48
Overall results	48
Bondi Beach	54
Tamarama Beach	55
Bronte Beach	56
Clovelly Beach	57
Gordons Bay	58
Coogee Beach	59
Maroubra Beach	60
South Maroubra Beach	61
South Maroubra Rockpool	62
Malabar Beach	63
Little Bay Beach	64
Camp Cove	65
Watsons Bay	66
Parsley Bay	67
Nielsen Park	68
Rose Bay Beach	69
Murray Rose Pool	70
Dawn Fraser Pool	71
Chiswick Baths	72
Cabarita Beach	73
Woolwich Baths	74
Tambourine Bay	75
Woodford Bay	76
Greenwich Baths	77
Hayes Street Beach	78

Clifton Gardens	79
Balmoral Baths	80
Edwards Beach	81
Chinamans Beach	82
Northbridge Baths	83
Davidson Reserve	84
Gurney Crescent Baths	85
Clontarf Pool	86
Forty Baskets Pool	87
Fairlight Beach	88
Manly Cove	89
Little Manly Cove	90
Southern Sydney (Sutherland beaches, lower Georges River, Botany Bay & Port Hacking)	91
Overall results	91
Boat Harbour	97
Greenhills Beach	98
Wanda Beach	99
Elouera Beach	100
North Cronulla Beach	101
South Cronulla Beach	102
Shelly Beach	103
Oak Park	104
Silver Beach	105
Como Baths	106
Jew Fish Bay Baths	107
Oatley Bay Baths	108
Carss Point Baths	109
Sandringham Baths	110
Dolls Point Baths	111
Ramsgate Baths	112
Monterey Baths	113
Brighton-Le-Sands Baths	114
Kyeemagh Baths	115

Foreshores Beach	116
Yarra Bay	117
Frenchmans Bay	118
Congwong Bay	119
Jibbon Beach	120
Horderns Beach	121
GyMEA Bay Baths	122
Lilli Pilli Baths	123
Gunnamatta Bay Baths	124
Western Sydney (Blue Mountains)	125
Overall results	125
Megalong Creek	128
Yosemite Creek – Minnehaha Falls	129
Wentworth Falls Lake – Jetty	130
Wentworth Falls Lake - Beach	131
How to read this report	132
Beach Suitability Grades	132
Explanation of tables	136
Explanation of graphs, charts, and information bars on beach pages	136
References	141
More information	141

Recreational water quality has been monitored in the Sydney region since 1989 by the Department of Planning and Environment's Beachwatch program and since 2022 by Blue Mountains City Council under the Beachwatch Partnership Program. This report summarises the performance of 101 swimming sites in the Sydney region, providing a long-term assessment of how suitable a site is for swimming. Monitored sites include ocean beaches, a lagoon, a rockpool, estuarine sites in Pittwater, Sydney Harbour, Botany Bay, lower Georges River and Port Hacking and freshwater creeks in the Blue Mountains.

In 2022–2023, 73% of swimming sites in the Sydney region were graded as Good or Very Good, including 36 ocean beaches. These sites were suitable for swimming for most or almost all of the time. While this is a decline in overall performance from the previous year, it reflects the wet weather conditions and significant rainfall events over winter and spring, including the wettest July on record. The Sydney region has a large proportion of lagoon and estuarine swimming locations, which have been most susceptible to impacts from significant rain events.

Sydney region summary 2022–2023

Monitoring water quality for swimming in New South Wales



North Steyne Beach
Photo: Beachwatch/DPE

The water quality of beaches and other swimming locations is monitored under the NSW Government’s Beachwatch programs to provide the community with accurate information on the cleanliness of the water and to enable individuals to make informed decisions about where and when to swim. Routine assessment also measures the impact of pollution sources, enables the effectiveness of stormwater and wastewater management practices to be assessed and highlights areas where further work is needed.

Swimming sites in New South Wales are graded as Very Good, Good, Fair, Poor or Very Poor in accordance with the National Health and Medical Research Council’s 2008 *Guidelines for Managing Risks in Recreational Waters*. These Beach Suitability Grades provide a long-term assessment of how suitable a beach is for swimming. The grades are determined from the most recent 100 water quality results (2–4 years’ worth of data depending on the sampling frequency) and a risk assessment of potential pollution sources.

See the section on **Quality assurance** in the Statewide Summary for results of the quality assurance program.

Recreational water quality has been monitored in the Sydney region by the Department of Planning and Environment’s Beachwatch program since 1989 and Blue Mountains City Council since 2022 under the Beachwatch Partnership Program.

A **quality assurance** program ensures the information collected and reported by Beachwatch is accurate and reliable.

During 2022–2023, 101 swimming sites were monitored including ocean beaches, a lagoon, a rockpool, estuarine sites in Pittwater, Sydney Harbour, Botany Bay, lower Georges River and Port Hacking, and freshwater sites in the Blue Mountains.

See the section on **How to read this report** on page 132 for an explanation of the graphs, tables and Beach Suitability Grades.



Debris and discoloured water at Queenscliff Beach following extreme wet weather and flooding
Photo: Beachwatch/DPE

Rainfall impacts

Rainfall is the major driver of pollution to recreational waters, generating stormwater runoff and triggering untreated discharges from the wastewater treatment and transport systems. Changes in rainfall patterns are reflected in beach water quality over time due to variation in the frequency and extent of stormwater and wastewater inputs.

The Beach Suitability Grades for 2022–2023 are based on water quality data collected over the last 2–4 years. Rainfall over this period has been diverse:

- 2019–2020: average to below average rainfall, except for some isolated wet weather events and wet February
- 2020–2021: variable rainfall with some very wet months over summer and early autumn
- 2021–2022: varied rainfall, with extreme wet weather conditions over summer and early autumn, and significant flooding
- 2022–2023: varied rainfall, with some very wet months over winter and spring, including the wettest July on record.

Sydney’s total rainfall in winter 2022 was above the long-term average. While June was very dry, total rainfall in July made it the wettest July on record with 404 mm of rainfall recorded at Sydney (Observatory Hill). Most rain fell in the first week of July with heavy rainfall and major flooding to the Hawkesbury–Nepean catchment. Drier conditions returned in August 2022 with below average rainfall recorded.

Wet conditions returned in spring 2022 with rainfall totals more than double their average in some areas. Mona Vale recorded more than double the long-term monthly average rainfall for September and more than triple the monthly average for October with 203 mm and 260 mm of rain for the month, respectively. Significant wet weather at the start of October included a daily rainfall total of 99 mm at Sydney Airport. Drier conditions followed in November with extended dry periods in some areas and below average rainfall recorded for the month. Mona Vale recorded 28 mm total rainfall for November, which was well below the long-term monthly average.

Summer rainfall totals were average to above average along the Sydney coast. December 2022 was drier than average with Rose Bay recording 47 mm of total rainfall for the month. Wet conditions returned in January and February 2023 with rainfall totals average or above average across most areas. Heavy rainfall was associated

with summer storms in February, with daily rainfall totals of 82 mm, 90 mm and 65 mm recorded at Randwick, Mona Vale and Sydney Airport, respectively.

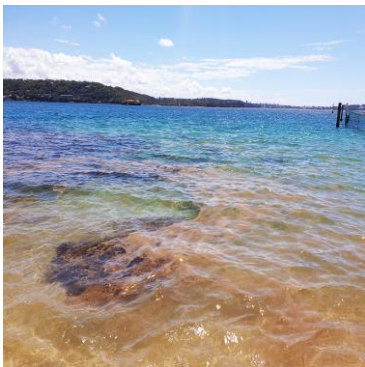
In March 2023, extended dry periods in many areas resulted in well below average total rainfall for the month. Mona Vale recorded a monthly rainfall total of 35 mm, which is just over a quarter of the long-term average of 136 mm of rainfall. Total rainfall in April returned to average with a significant rainfall event at the start of the month with Sydney (Observatory Hill) recording a daily total of 89 mm of rainfall.

Flooding and water quality

Beachwatch monitoring showed flooding events in 2022 impacted waterways beyond the flood zones, including Pittwater, Sydney Harbour and Sydney ocean beaches, making microbial water quality unsuitable for swimming. The most affected areas were in estuaries, which have a lower level of flushing and took longer to recover from the floodwater events than the ocean beaches.

As microbial levels returned to normal at swim sites monitored by Beachwatch there was still a large amount of debris or other hazards, such as murky water, which posed a risk to recreational activities.

Marine algal blooms



Marine algal bloom present in the water

Photo: Chad Weston/NPWS, DPE

WaterNSW reported several occurrences of marine algal blooms along the Sydney coast in 2022–2023. Blooms of *Alexandrium pacificum* occurred in a number of estuaries including Broken Bay and Pittwater during October 2022 to February 2023. *Noctiluca* sp. were reported at Coogee Beach in March 2023. Marine algae advisories were issued on the Beachwatch and WaterNSW websites.

The appearance of **marine algae** is sometimes mistaken for **sewage contamination** or **oil slicks**, due to a strong odour and red or brown discolouration in the water caused by the blooms.

As a precaution, direct contact with algae should be avoided as it can cause skin and eye irritations. The marine algal blooms dissipated with changes in tide and wind conditions.

Beachwatch issues daily **beach pollution forecasts** to enable beach goers to make informed decisions about where and when to swim.

Pollution forecasts for the Sydney region can be accessed via the Beachwatch website, email subscription, Twitter and Facebook.

Health risks











































Contamination of recreational waters with faecal material from animal and human sources can pose significant health problems to beach users owing to the presence of pathogens (disease-causing micro-organisms) in the faecal material. The most common groups of pathogens found in recreational waters are bacteria, protozoans and viruses.

Exposure to contaminated water can cause gastroenteritis, with symptoms including vomiting, diarrhoea, stomach-ache, nausea, headache and fever. Eye, ear, skin and upper respiratory tract infections can also be contracted when pathogens come into contact with small breaks and tears in the skin or ruptures of the delicate membranes in the ear or nose.

Certain groups of users may be more vulnerable to microbial infection than others. Children, the elderly, people with compromised immune systems, tourists, and people from culturally and linguistically diverse backgrounds are generally most at risk.













































Beach Suitability Grades for Sydney region

Swimming site	Site type	Beach Suitability Grade	Change
Northern Sydney – Ocean beaches			
Palm Beach	Ocean beach	VG	<input type="radio"/>
Whale Beach	Ocean beach	VG	<input type="radio"/>
Avalon Beach	Ocean beach	VG	<input type="radio"/>
Bilgola Beach	Ocean beach	G	<input type="radio"/>
Newport Beach	Ocean beach	G	<input type="radio"/>
Bungan Beach	Ocean beach	G	<input type="radio"/>
Mona Vale Beach	Ocean beach	G	↓
Warriewood Beach	Ocean beach	G	<input type="radio"/>
Turimetta Beach	Ocean beach	G	<input type="radio"/>
North Narrabeen Beach	Ocean beach	G	<input type="radio"/>
Narrabeen Lagoon (Birdwood Park)	Lagoon	P	<input type="radio"/>
Bilarong Reserve	Lagoon	P	<input type="radio"/>
Collaroy Beach	Ocean beach	G	<input type="radio"/>
Long Reef Beach	Ocean beach	G	<input type="radio"/>
Dee Why Beach	Ocean beach	G	<input type="radio"/>
North Curl Curl Beach	Ocean beach	G	<input type="radio"/>
South Curl Curl Beach	Ocean beach	G	↓
Freshwater Beach	Ocean beach	G	<input type="radio"/>
Queenscliff Beach	Ocean beach	G	<input type="radio"/>
North Steyne Beach	Ocean beach	G	<input type="radio"/>
South Steyne Beach	Ocean beach	G	<input type="radio"/>
Shelly Beach	Ocean beach	G	<input type="radio"/>

Swimming site	Site type	Beach Suitability Grade	Change
Northern Sydney – Pittwater			
Barrenjoey Beach	Estuarine		
Paradise Beach Baths	Estuarine		
Clareville Beach	Estuarine		
Taylors Point Baths	Estuarine		
Bayview Baths	Estuarine		
Elvina Bay	Estuarine		
North Scotland Island	Estuarine		
South Scotland Island	Estuarine		
The Basin	Estuarine		
Great Mackerel Beach	Estuarine		
Central Sydney – Ocean beaches			
Bondi Beach	Ocean beach		
Tamarama Beach	Ocean beach		
Bronte Beach	Ocean beach		
Clovelly Beach	Ocean beach		
Gordons Bay	Ocean beach		
Coogee Beach	Ocean beach		
Maroubra Beach	Ocean beach		
South Maroubra Beach	Ocean beach		
South Maroubra Rockpool	Ocean baths		
Malabar Beach	Ocean beach		
Little Bay Beach	Ocean beach		

NSW State of the beaches 2022–2023

Swimming site	Site type	Beach Suitability Grade	Change
Central Sydney – Sydney Harbour			
Camp Cove	Estuarine		
Watsons Bay	Estuarine		
Parsley Bay	Estuarine		
Nielsen Park	Estuarine		
Rose Bay Beach	Estuarine		
Murray Rose Pool	Estuarine		
Dawn Fraser Pool	Estuarine		
Chiswick Baths	Estuarine		
Cabarita Beach	Estuarine		
Woolwich Baths	Estuarine		
Tambourine Bay	Estuarine		
Woodford Bay	Estuarine		
Greenwich Baths	Estuarine		
Hayes St Beach	Estuarine		
Clifton Gardens	Estuarine		
Balmoral Baths	Estuarine		
Edwards Beach	Estuarine		
Chinamans Beach	Estuarine		
Northbridge Baths	Estuarine		
Davidson Reserve	Estuarine		
Gurney Crescent Baths	Estuarine		
Clontarf Pool	Estuarine		
Forty Baskets Pool	Estuarine		

Swimming site	Site type	Beach Suitability Grade	Change
Central Sydney – Sydney Harbour (continued)			
Fairlight Beach	Estuarine		
Manly Cove	Estuarine		
Little Manly Cove	Estuarine		
Southern Sydney – Ocean beaches			
Boat Harbour	Ocean beach		
Greenhills Beach	Ocean beach		
Wanda Beach	Ocean beach		
Elouera Beach	Ocean beach		
North Cronulla Beach	Ocean beach		
South Cronulla Beach	Ocean beach		
Shelly Beach	Ocean beach		
Oak Park	Ocean beach		
Southern Sydney – Botany Bay and lower Georges River			
Silver Beach	Estuarine		
Como Baths	Estuarine		
Jew Fish Bay Baths	Estuarine		
Oatley Bay Baths	Estuarine		
Carss Point Baths	Estuarine		
Sandringham Baths	Estuarine		
Dolls Point Baths	Estuarine		
Ramsgate Baths	Estuarine		
Monterey Baths	Estuarine		
Brighton-Le-Sands Baths	Estuarine		
Kyeemagh Baths	Estuarine		

Swimming site	Site type	Beach Suitability Grade	Change
Southern Sydney – Botany Bay and lower Georges River (continued)			
Foreshores Beach	Estuarine	VP	○
Yarra Bay	Estuarine	P	○
Frenchmans Bay	Estuarine	P	○
Congwong Bay	Estuarine	G	○
Southern Sydney – Port Hacking			
Jibbon Beach	Estuarine	G	○
Horderns Beach	Estuarine	G	○
GyMEA Bay Baths	Estuarine	VP	↓
Lilli Pilli Baths	Estuarine	G	○
Gunnamatta Bay Baths	Estuarine	P	↓
Western Sydney – Blue Mountains Council			
Megalong Creek	Freshwater	P	○
Yosemite Creek – Minnehaha Falls	Freshwater	VP	○
Wentworth Falls Lake – Jetty	Freshwater	P	○
Wentworth Falls Lake – Beach	Freshwater	P	↓
Beach Suitability Grade		Change	
Very Good	Good	Fair	Poor
Very Poor	Improved	Stable	Declined

Northern Sydney (Pittwater to Manly)

Overall results

Twenty-nine of the 32 swimming sites were graded as Very Good or Good in 2022–2023. This is a very good result and a similar performance to the previous year.



Percentage of sites graded as Very Good or Good

	2020–2021	2021–2022	2022–2023	Trend
Ocean beaches (20 sites)	100%	100%	100%	
Estuarine sites (10 sites)	100%	90%	90%	
Lake/lagoon sites (2 sites)	0%	0%	0%	

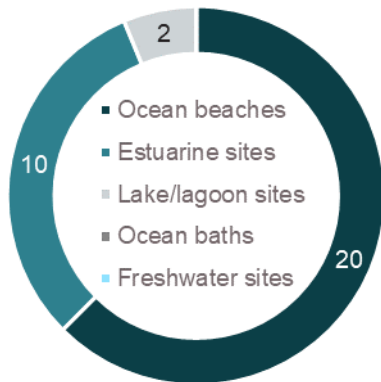
See the section on **How to read this report** on page 132 for an explanation of the graphs, tables and Beach Suitability Grades.

Beachwatch samples the ocean beaches and Narrabeen Lagoon every sixth day throughout the year, and estuarine beaches every sixth day between October and April, and monthly from May to September.

Best beaches

Palm Beach, Whale Beach, Avalon Beach, The Basin and Great Mackerel Beach.

These sites had excellent water quality and were suitable for swimming almost all of the time.



Site types in Northern Sydney region

Swimming sites monitored in the Northern Sydney region include ocean beaches, estuarine areas in Pittwater and lagoon sites in Narrabeen Lagoon, with each site type having a different response to rainfall-related impacts.

Estuarine and lagoon swimming sites did not perform as well as ocean beaches due to lower levels of flushing, which increase the time needed to disperse and dilute pollution inputs, taking longer to recover from stormwater events.

As a general precaution swimming should be avoided during and for at least one day after heavy rain at ocean beaches, and for up to 3 days in estuarine and lagoon areas, or if there are signs of stormwater pollution such as discoloured water or floating debris.

Swimming is not recommended at ocean beaches located near lagoon entrances if the lagoon is open, due to the possibility of pollution from the outflow.



Beach Suitability Grades for Northern Sydney ocean beaches

Ocean beaches

All 20 ocean beaches were graded as Very Good or Good in 2022–2023.

Palm Beach, Whale Beach and Avalon Beach were graded as Very Good. The water quality at these sites was of a very high standard and suitable for swimming almost all of the time.

Bilgola Beach, Newport Beach, Bungun Beach, Mona Vale Beach, Warriewood Beach, Turimetta Beach, North Narrabeen Beach, Collaroy Beach, Long Reef Beach, Dee Why, North Curl Curl Beach, South Curl Curl Beach, Freshwater Beach, Queenscliff Beach, North Steyne Beach, South Steyne Beach and Shelly Beach were graded as Good. Water quality was frequently suitable for swimming during dry weather conditions, with elevated levels of enterococci recorded following heavy rainfall.

Mona Vale and South Curl Curl Beach were downgraded to Good, due to a slight decline in microbial water quality.

It is recommended that swimming be avoided at ocean beaches during and for up to one day following rainfall, or if there are signs of pollution such as discoloured water, flowing drains or floating debris.

Estuarine beaches



Beach Suitability Grades for Northern Sydney estuarine beaches

Nine of the 10 estuarine swimming sites in Pittwater were graded as Very Good or Good in 2022–2023.

The Basin and Great Mackerel Beach were graded as Very Good. These sites had excellent water quality and were suitable for swimming almost all of the time.

Elvina Bay was downgraded to Good from Very Good in the previous year. The microbial water quality at this site is close to the threshold between Good and Very Good and has changed between these grades over recent years. While water quality is mostly suitable for swimming during dry weather and after light to moderate rainfall, elevated bacterial levels were regularly recorded following heavy rainfall.

Barrenjoey Beach, Paradise Beach Baths, Clareville Beach, Taylors Point Baths, North Scotland Island, South Scotland Island and Elvina Bay were graded as Good. Water quality at these sites was suitable for swimming most of the time, with elevated levels of enterococci mostly recorded following rainfall. Bacterial levels were occasionally elevated at Barrenjoey Beach during dry weather conditions.

Bayview Baths was graded as Poor, a similar result to the previous year. Elevated enterococci levels were occasionally recorded during dry weather conditions, and regularly after moderate to heavy rainfall. Water quality at this site can take longer to recover from stormwater events than at other Pittwater swimming sites due to lower levels of flushing.

Lake/lagoon swimming sites



Beach Suitability Grades for Northern Sydney lake/lagoon swimming sites

The 2 swimming sites in Narrabeen Lagoon, Birdwood Park and Bilarong Reserve, continued to be graded as Poor in 2022–2023, as in the previous year. Water quality at these sites was mostly suitable for swimming during dry weather, with 82% and 73% of dry weather samples within the safe swimming limit for Birdwood Park and Bilarong Reserve, respectively. However, enterococci levels increased with increasing rainfall, and often exceeded the safe swimming limit after light rainfall.

Birdwood Park is located at the entrance to the lagoon and water quality at this site is influenced by wet weather events and whether the lagoon is open to the ocean. Discharge from Narrabeen Lagoon is a significant source of faecal contamination.

Bilarong Reserve in Narrabeen Lagoon retains pollution inputs because it is located away from the lagoon entrance and is not well flushed by clean ocean water. A significant source of faecal contamination is stormwater runoff to the lagoon.

The amount of time the lagoon is open or closed influences water quality at Birdwood Park and Bilarong Reserve lagoon sites. During periods of entrance closure, water quality is likely to decline as pollution inputs are not as readily dissipated or flushed. The lagoon entrance will open and close naturally depending on how much rainfall has occurred and how much sand has accumulated in the mouth. When there are very large accumulations of sand, the entrance will often close and stay closed until the sand is removed by Northern Beaches Council. Historically this process happens every 4–5 years, with the last sand clearance operation being completed in December 2021. With the adoption of the Narrabeen Lagoon Entrance Management Strategy in September 2022, council will be trialling more frequent but smaller sand clearance operations (every 2–3 years rather than 4–5 years).



Sampling sites and Beach Suitability Grades at Sydney's Northern Beaches



Sampling sites and Beach Suitability Grades in Pittwater

Palm Beach

Beach grade:



Palm Beach is 2.3 km long, with rock baths in the southern corner. Lifeguards patrol the beach from September to April.

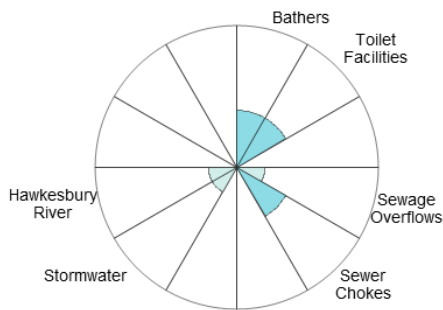
The Beach Suitability Grade of Very Good indicates microbial water quality is considered suitable for swimming almost all of the time, with few potential sources of faecal contamination.

Enterococci levels increased slightly with increasing rainfall, occasionally exceeding the safe swimming limit after 10 mm or more of rain, and often after 20 mm or more.

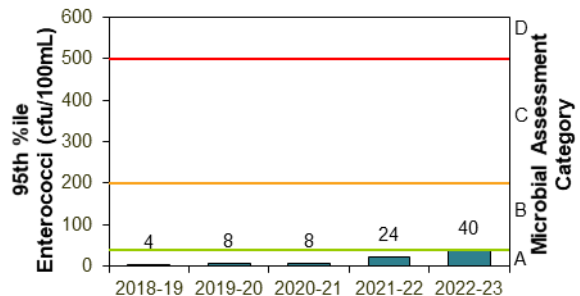
See 'How to read this report' for key to map. The site has been monitored since 1989.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Ocean beach	Aug 2021 to Apr 2023	98%	100	Stable

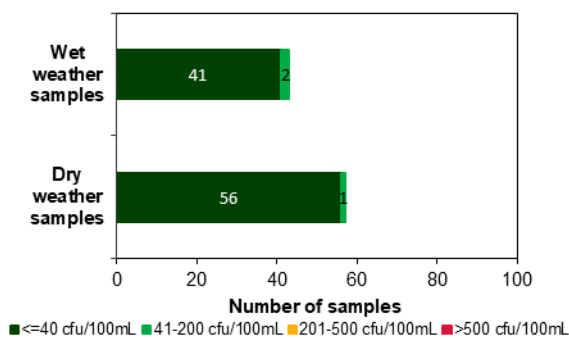
Sanitary inspection: Low



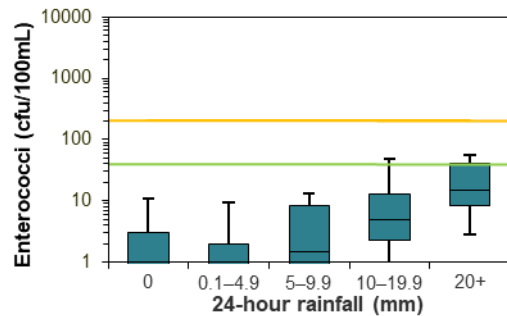
Microbial Assessment Category: A



Dry and wet weather water quality

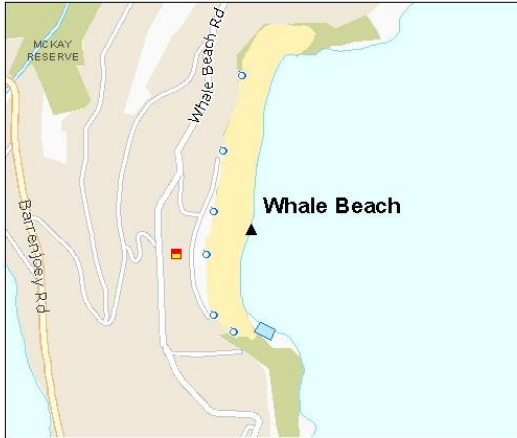


Water quality in response to rainfall



Whale Beach

Beach grade: VG



Whale Beach is 600 m long, with rock baths at the southern rock platform. Lifeguards patrol the beach from September to April.

The Beach Suitability Grade of Very Good indicates microbial water quality is considered suitable for swimming almost all of the time, with few potential sources of faecal contamination.

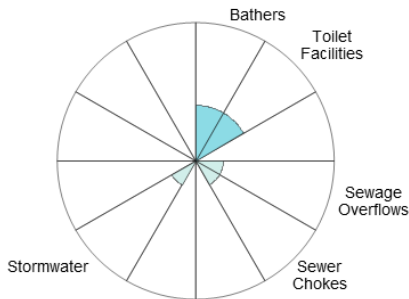
Enterococci levels increased slightly with increasing rainfall, occasionally exceeding the safe swimming limit after 10 mm or more of rain.

The site has been monitored since 1989.

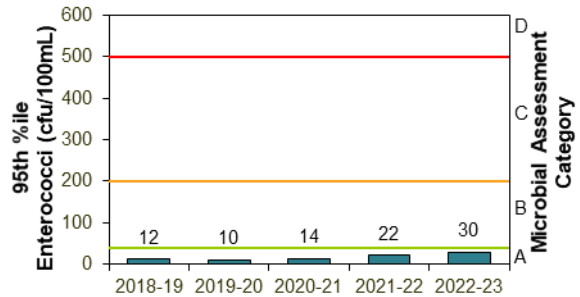
See 'How to read this report' for key to map.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status	
Ocean beach	Aug 2021 to Apr 2023	98%	100	Stable	

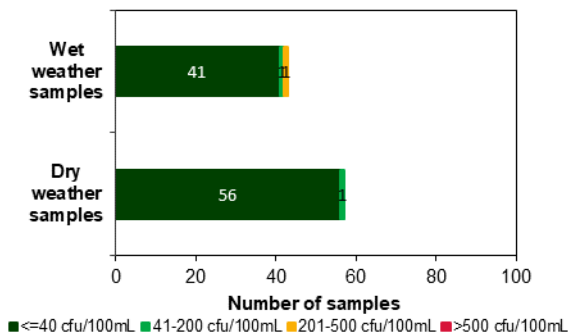
Sanitary inspection: Low



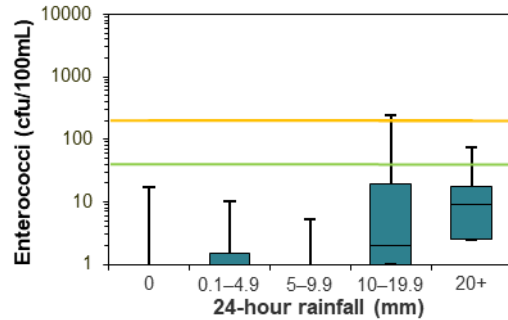
Microbial Assessment Category: A



Dry and wet weather water quality



Water quality in response to rainfall



Avalon Beach

Beach grade: VG



Avalon Beach is 500 m long and backed by a park and picnic area. Lifeguards patrol the beach from September to April.

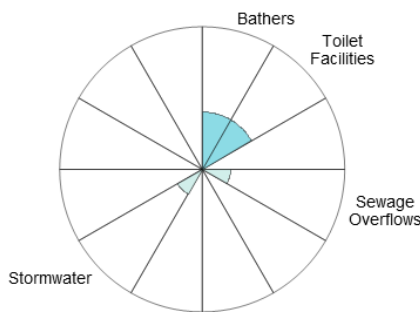
The Beach Suitability Grade of Very Good indicates microbial water quality is considered suitable for swimming almost all of the time, with few potential sources of faecal contamination.

Enterococci levels increased slightly with increasing rainfall, occasionally exceeding the safe swimming limit in response to 20 mm or more of rain.

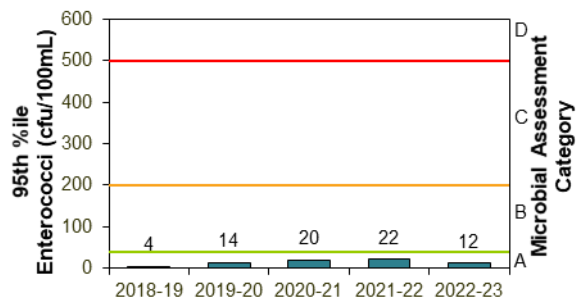
See 'How to read this report' for key to map. The site has been monitored since 1989.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status	
Ocean beach	Aug 2021 to Apr 2023	100%	100	Stable	○

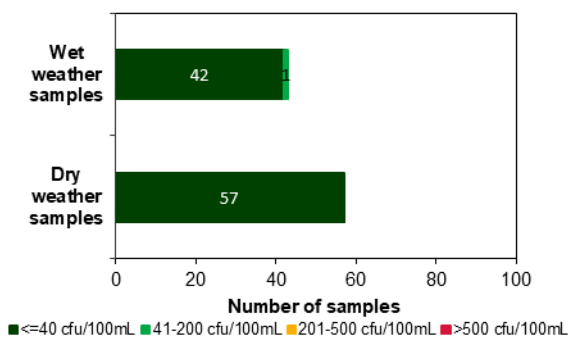
Sanitary inspection: Low



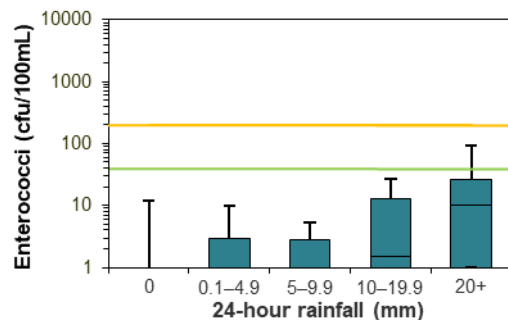
Microbial Assessment Category: A



Dry and wet weather water quality



Water quality in response to rainfall



Bilgola Beach

Beach grade:



Bilgola Beach is 500 m long, with rock baths at the southern end. Lifeguards patrol the beach from September to April.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but can be susceptible to pollution after rain, with several potential sources of minor faecal contamination.

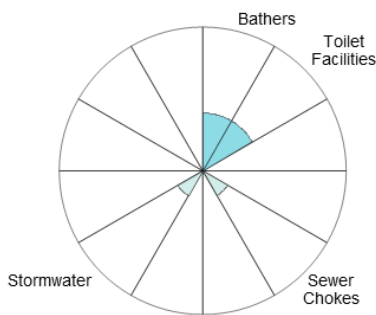
Enterococci levels generally increased with increasing rainfall, occasionally exceeding the safe swimming limit after 10 mm or more of rain, and often after 20 mm or more.

See 'How to read this report' for key to map.

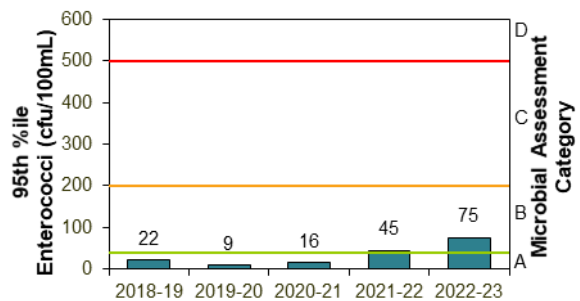
The site has been monitored since 1989.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Ocean beach	Aug 2021 to Apr 2023	96%	100	Stable

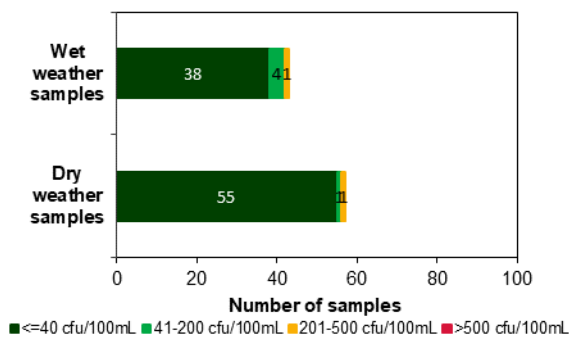
Sanitary inspection: Low



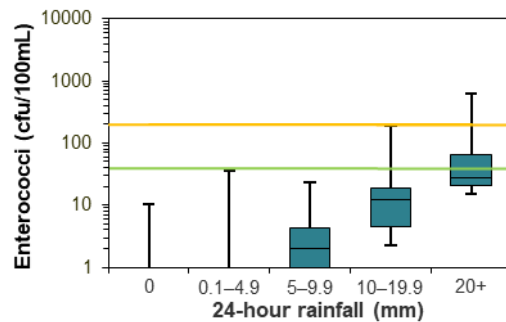
Microbial Assessment Category: B



Dry and wet weather water quality



Water quality in response to rainfall



Newport Beach

Beach grade: **G**



Newport Beach is an open, east facing beach around 1.3 km long. Lifeguards patrol the beach from September to April.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but can be susceptible to pollution after rain, with several potential sources of minor faecal contamination.

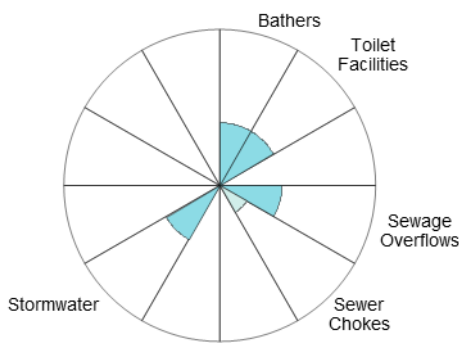
Enterococci levels generally increased with increasing rainfall, occasionally exceeding the safe swimming limit after light rain, and often after 20 mm or more.

See 'How to read this report' for key to map.

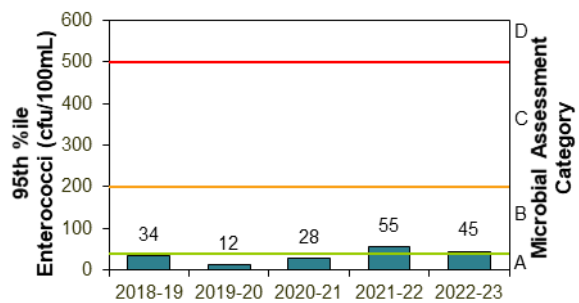
The site has been monitored since 1989.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Ocean beach	Aug 2021 to Apr 2023	100%	100	Stable

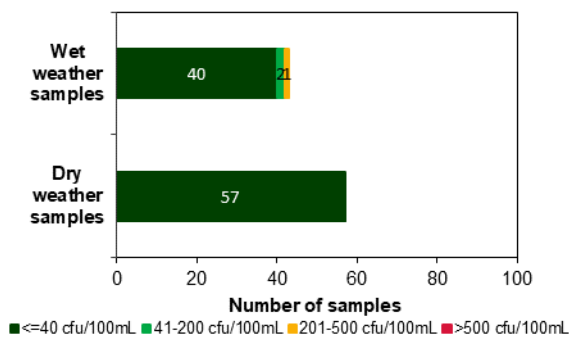
Sanitary inspection: Low



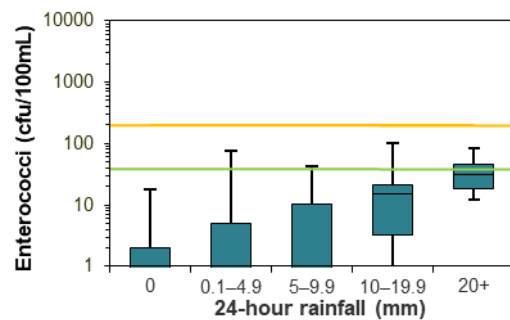
Microbial Assessment Category: B



Dry and wet weather water quality



Water quality in response to rainfall



Bungan Beach

Beach grade:



Bungan Beach is 600 m long and backed by a steep escarpment. Lifeguards patrol the beach from late December to the end of January.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but can be susceptible to pollution after rain, with several potential sources of minor faecal contamination.

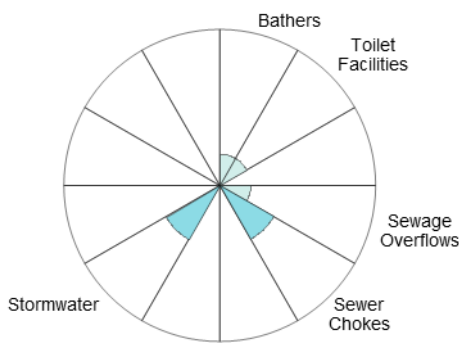
Enterococci levels generally increased with increasing rainfall, occasionally exceeding the safe swimming limit in response to light rain, and often after 20 mm or more of rain.

See 'How to read this report' for key to map.

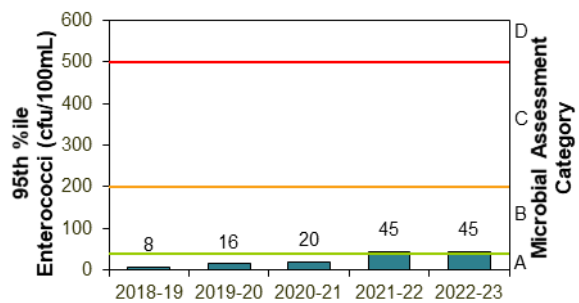
The site has been monitored since 1989.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Ocean beach	Aug 2021 to Apr 2023	98%	100	Stable

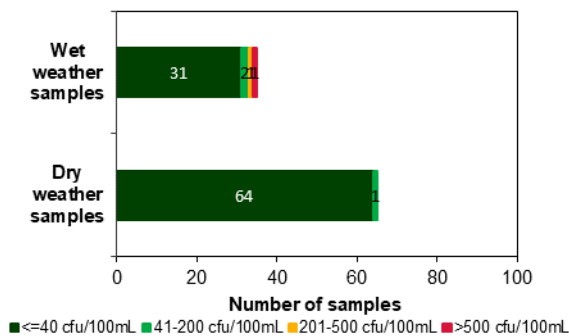
Sanitary inspection: Low



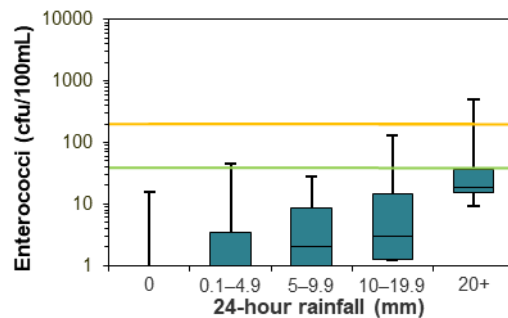
Microbial Assessment Category: B



Dry and wet weather water quality

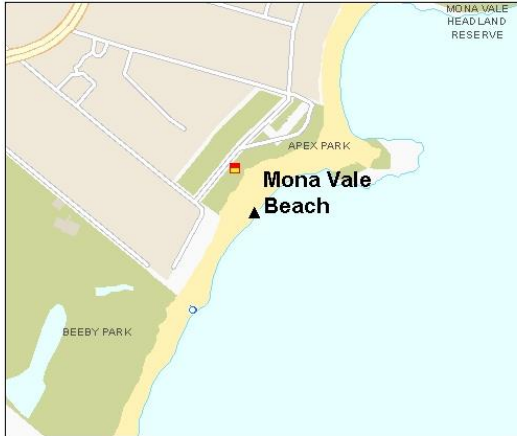


Water quality in response to rainfall



Mona Vale Beach

Beach grade: **G**



Mona Vale Beach is 1 km long. Lifeguards patrol the beach from September to April.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but can be susceptible to pollution after rain, with several potential sources of minor faecal contamination.

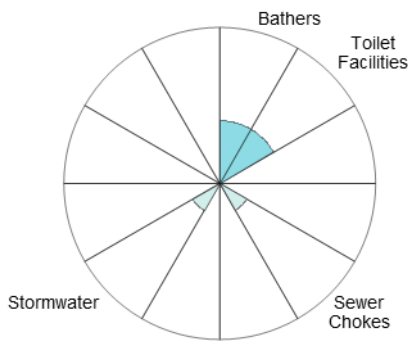
Enterococci levels generally increased with increasing rainfall, occasionally exceeding the safe swimming limit after light rain, and often after 20 mm or more.

See 'How to read this report' for key to map.

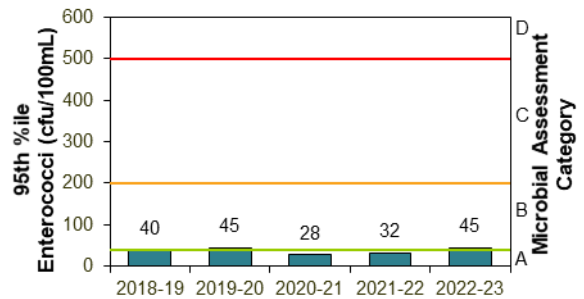
The site has been monitored since 1989.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Ocean beach	Aug 2021 to Apr 2023	100%	100	Declined

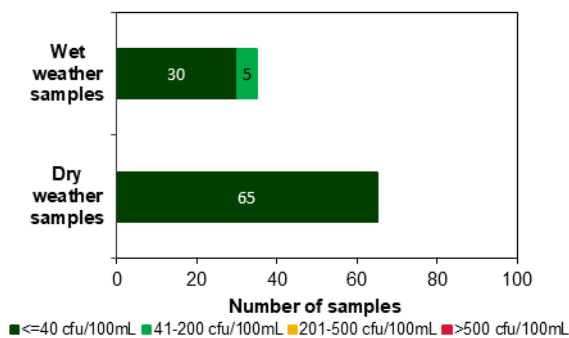
Sanitary inspection: Low



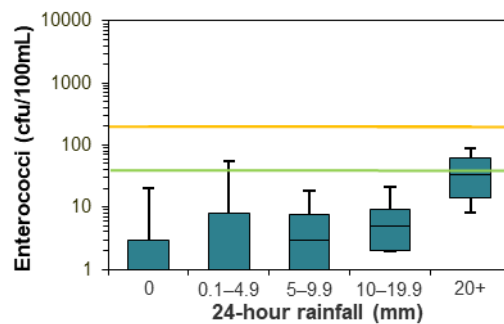
Microbial Assessment Category: B



Dry and wet weather water quality

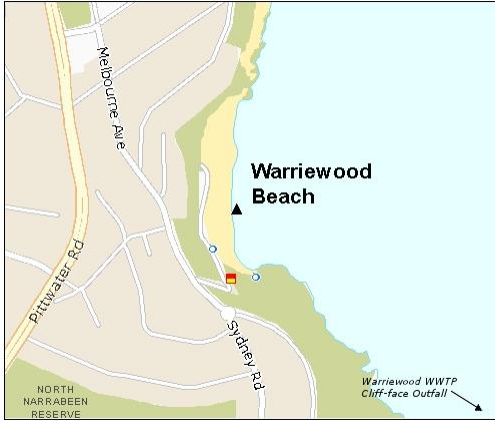


Water quality in response to rainfall



Warriewood Beach

Beach grade: G



See 'How to read this report' for key to map.

Warriewood Beach is 500 m long and located below a steep bluff. The beach is patrolled during holiday periods.

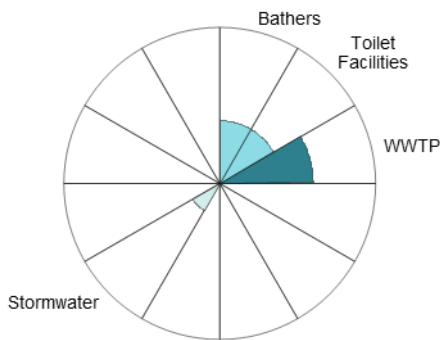
The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but can be susceptible to pollution after rain, with several potential sources of faecal contamination including Warriewood Wastewater Treatment Plant (WWTP).

Enterococci levels generally increased with increasing rainfall, occasionally exceeding the safe swimming limit after 5 mm or more of rain, and regularly after 20 mm or more.

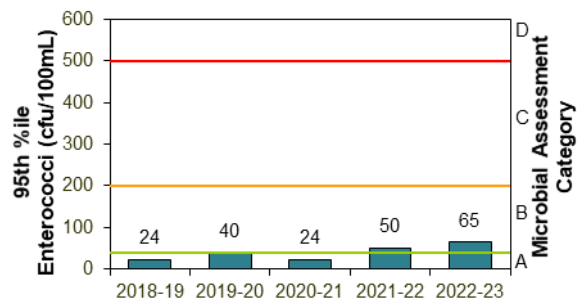
The site has been monitored since 1989.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Ocean beach	Aug 2021 to Apr 2023	95%	100	Stable

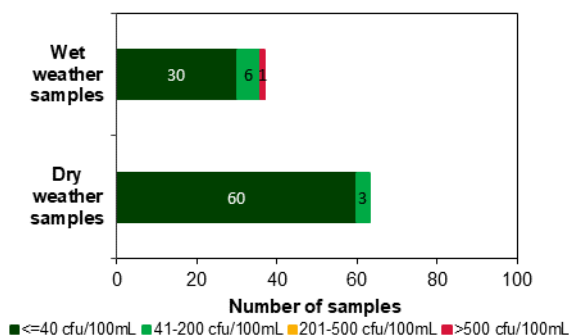
Sanitary inspection: Moderate



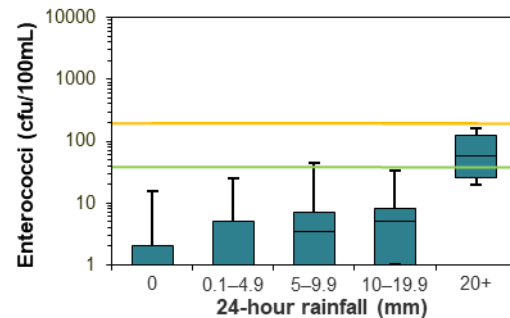
Microbial Assessment Category: B



Dry and wet weather water quality

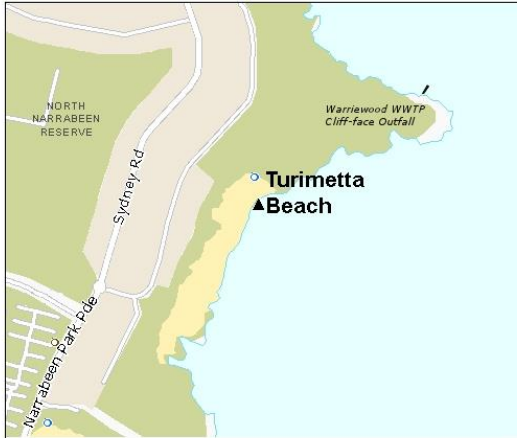


Water quality in response to rainfall



Turimetta Beach

Beach grade: G



Turimetta Beach is 350 m long and is backed by steep bluffs. This beach is not patrolled by lifeguards.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of faecal contamination including Warriewood WWTP.

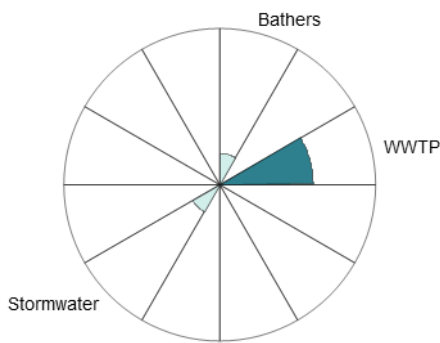
Enterococci levels generally increased with increasing rainfall, occasionally exceeding the safe swimming limit after light rain, and regularly after 20 mm or more.

See 'How to read this report' for key to map.

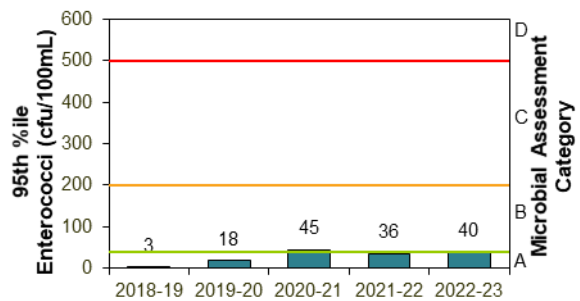
The site has been monitored since 1994.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Ocean beach	Aug 2021 to Apr 2023	95%	100	Stable

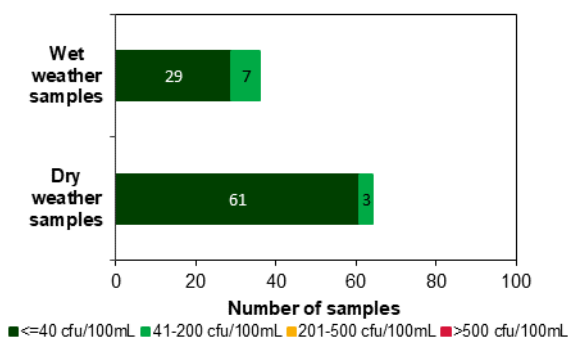
Sanitary inspection: Moderate



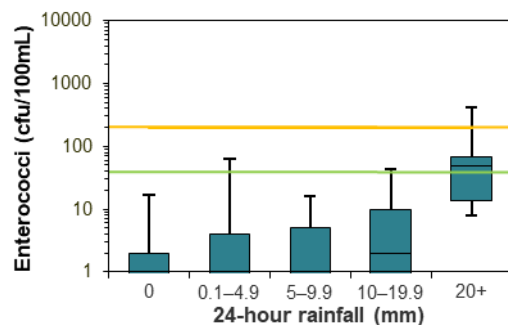
Microbial Assessment Category: A



Dry and wet weather water quality



Water quality in response to rainfall



North Narrabeen Beach

Beach grade: G



North Narrabeen Beach is located at the northern end of the 3.5 km long beach and is patrolled from September to April.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of faecal contamination including discharge from Narrabeen Lagoon.

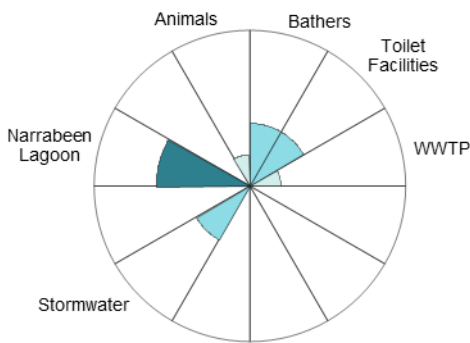
Enterococci levels generally increased with increasing rainfall, occasionally exceeding the safe swimming limit after light rain, and regularly after 20 mm or more.

See 'How to read this report' for key to map.

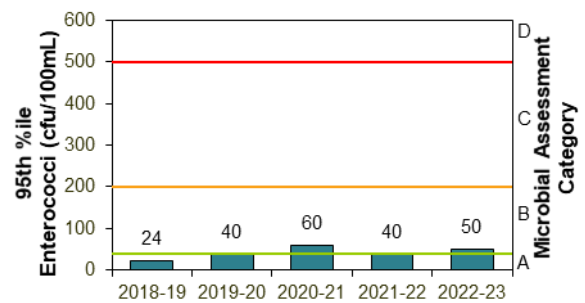
The site has been monitored since 1989.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Ocean beach	Aug 2021 to Apr 2023	95%	100	Stable

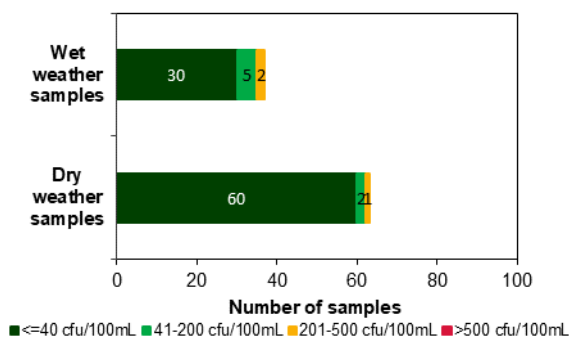
Sanitary inspection: Moderate



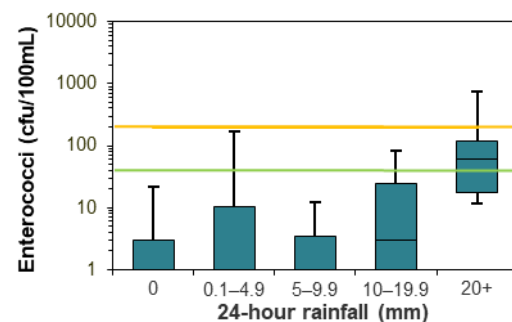
Microbial Assessment Category: B



Dry and wet weather water quality



Water quality in response to rainfall



Narrabeen Lagoon (Birdwood Park)

Beach grade: P



See 'How to read this report' for key to map.

The Birdwood Park swimming site is a sandy beach on the southern side of the entrance to Narrabeen Lagoon. The lagoon entrance has been periodically open and closed at times.

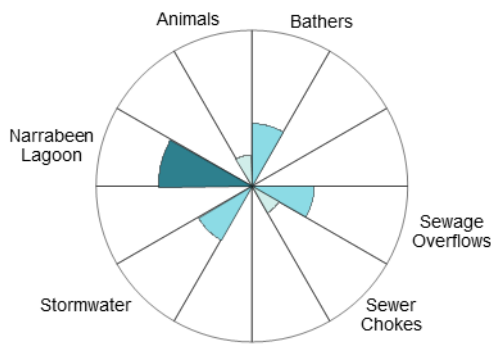
The Beach Suitability Grade of Poor indicates microbial water quality is susceptible to faecal pollution, particularly after rainfall and occasionally during dry weather conditions, with several potential sources of faecal contamination including from elsewhere within the lagoon.

Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit after no rain, and often after rain.

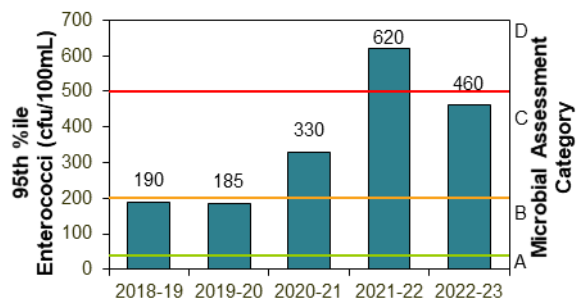
The site has been monitored since 2004.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Lagoon	Jul 2021 to Apr 2023	82%	100	Stable

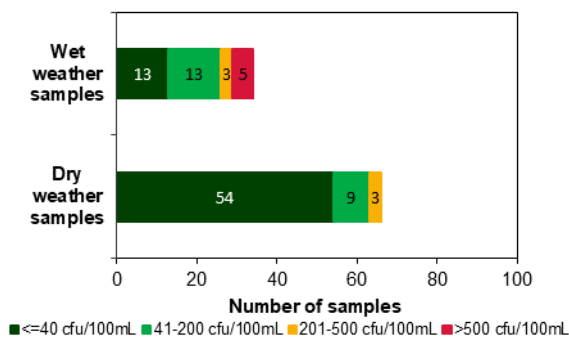
Sanitary inspection: Moderate



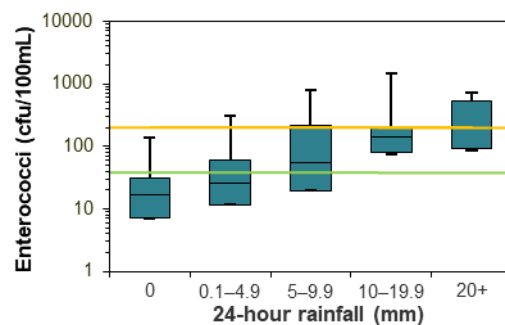
Microbial Assessment Category: C



Dry and wet weather water quality



Water quality in response to rainfall



Bilarong Reserve

Beach grade: P



Bilarong Reserve is located on the northern shoreline of Narrabeen Lagoon.

The Beach Suitability Grade of Poor indicates microbial water quality is susceptible to faecal pollution, particularly after rainfall and occasionally during dry weather conditions, with several potential sources of faecal contamination including from elsewhere within the lagoon.

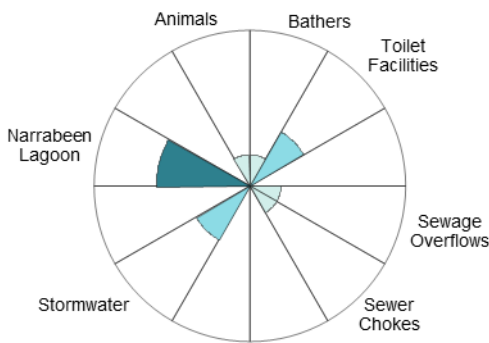
Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit in response to no rain, and often after rain.

See 'How to read this report' for key to map.

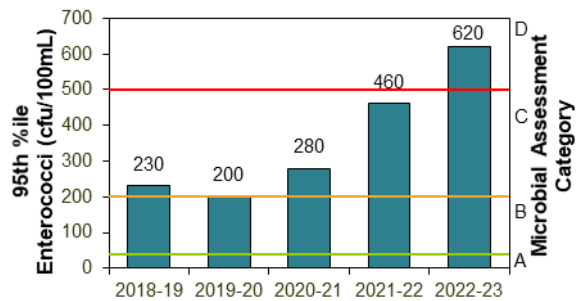
The site has been monitored since 2014.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Lagoon	Jul 2021 to Apr 2023	73%	100	Stable

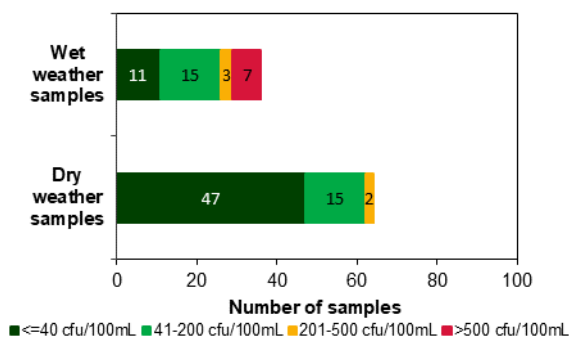
Sanitary inspection: Moderate



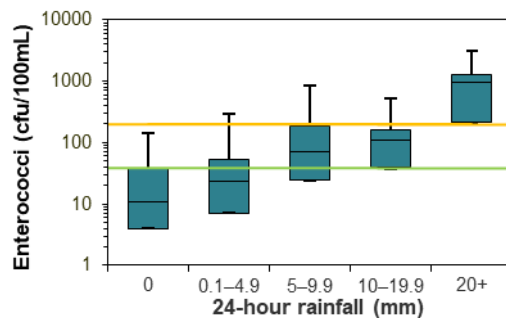
Microbial Assessment Category: D



Dry and wet weather water quality

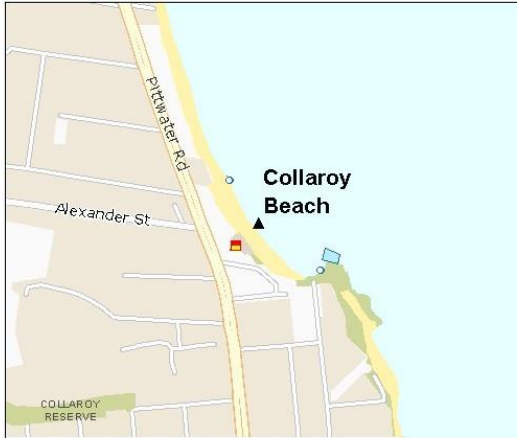


Water quality in response to rainfall



Collaroy Beach

Beach grade: G



See 'How to read this report' for key to map.

Collaroy Beach is backed by a park and picnic area. Lifeguards patrol the beach from September to April.

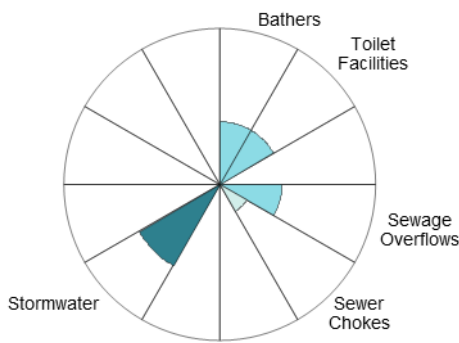
The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of faecal contamination including stormwater.

Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit after light rain and often after 5 mm or more.

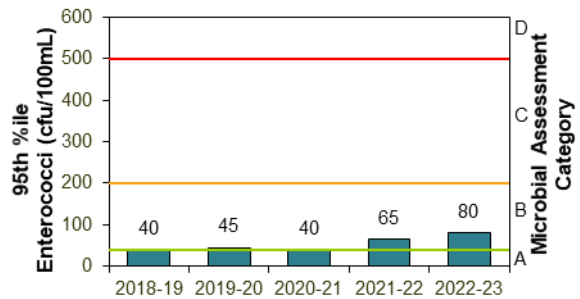
The site has been monitored since 1989.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Ocean beach	Aug 2021 to Apr 2023	97%	100	Stable

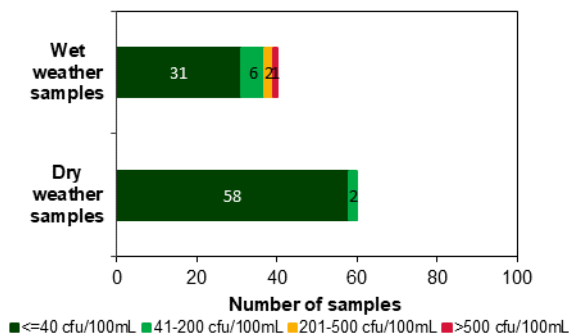
Sanitary inspection: Moderate



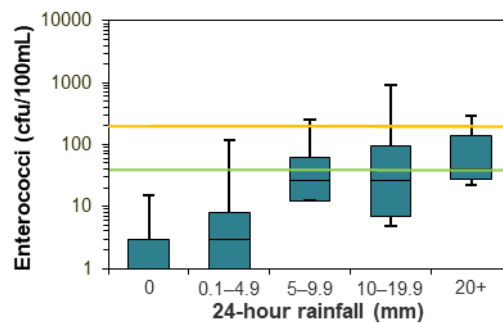
Microbial Assessment Category: B



Dry and wet weather water quality



Water quality in response to rainfall



Long Reef Beach

Beach grade:



Long Reef Beach is located near the entrance of Dee Why Lagoon. Lifeguards patrol the beach from September to April.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with potential faecal contamination from discharge from Dee Why Lagoon.

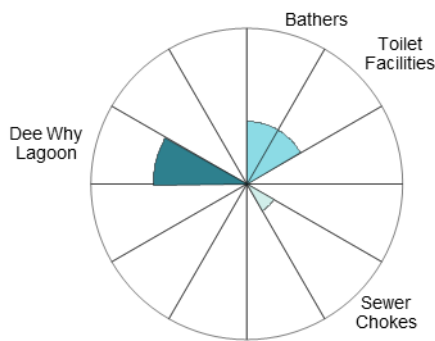
Enterococci levels generally increased with increasing rainfall, occasionally exceeding the safe swimming limit after 5 mm or more of rain, and often after 20 mm or more.

See 'How to read this report' for key to map.

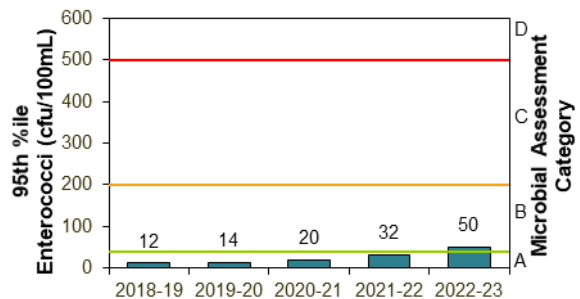
The site has been monitored since 1989.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Ocean beach	Aug 2021 to Apr 2023	98%	100	Stable

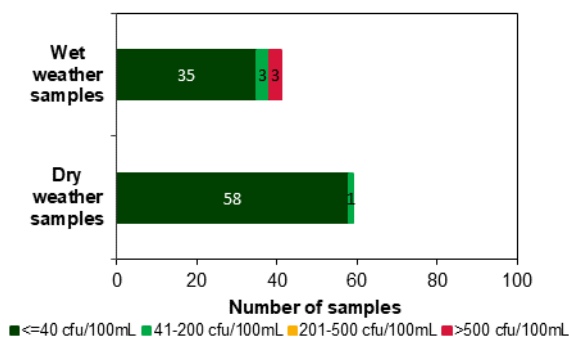
Sanitary inspection: Moderate



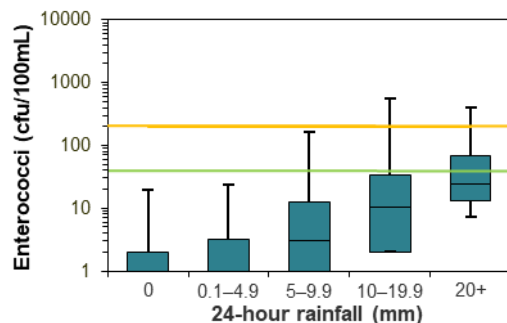
Microbial Assessment Category: B



Dry and wet weather water quality

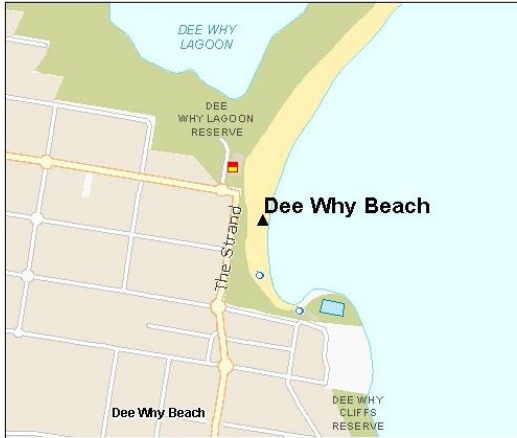


Water quality in response to rainfall



Dee Why Beach

Beach grade: **G**



Dee Why Beach is located at the southern end of the stretch of beach and is patrolled by lifeguards from late August to May.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but can be susceptible to pollution after rain, with several potential sources of faecal contamination.

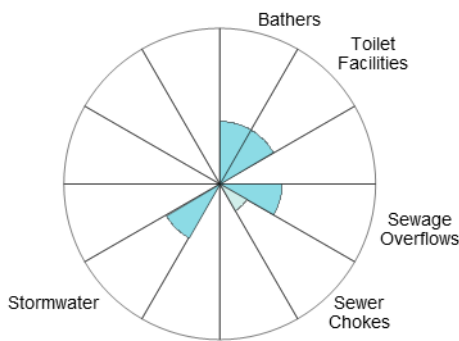
Enterococci levels generally increased with increasing rainfall, occasionally exceeding the safe swimming limit in response to 10 mm or more of rain, and regularly after 20 mm or more.

See 'How to read this report' for key to map.

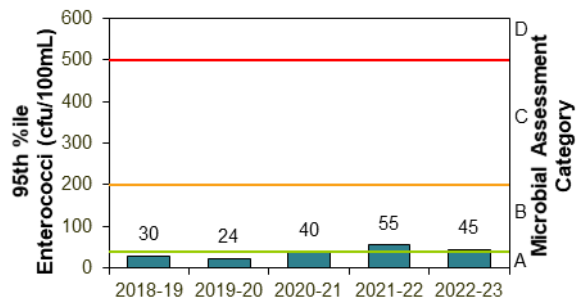
The site has been monitored since 1989.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Ocean beach	Aug 2021 to Apr 2023	98%	100	Stable

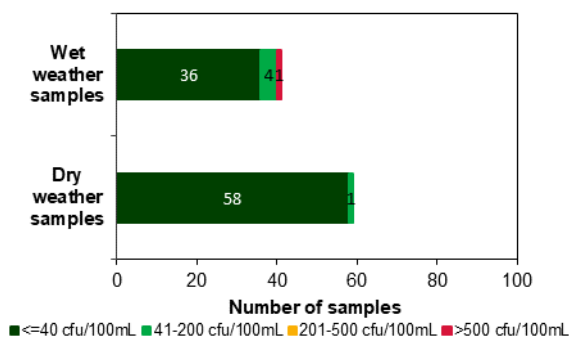
Sanitary inspection: Low



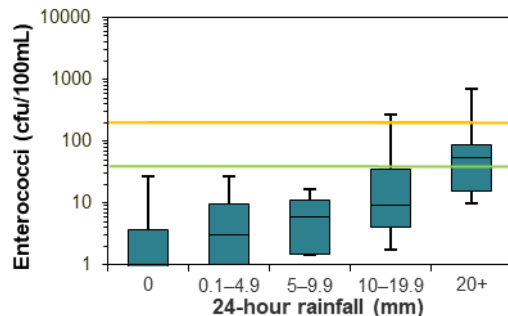
Microbial Assessment Category: B



Dry and wet weather water quality



Water quality in response to rainfall



North Curl Curl Beach

Beach grade: G



North Curl Curl Beach is located near the entrance to Curl Curl Lagoon. Lifeguards patrol the beach from September to April.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of faecal contamination including discharge from Curl Curl Lagoon.

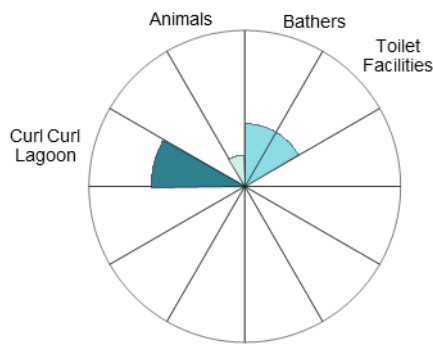
Enterococci levels generally increased with increasing rainfall, occasionally exceeding the safe swimming limit after 10 mm or more of rain, and frequently after 20 mm or more.

See 'How to read this report' for key to map.

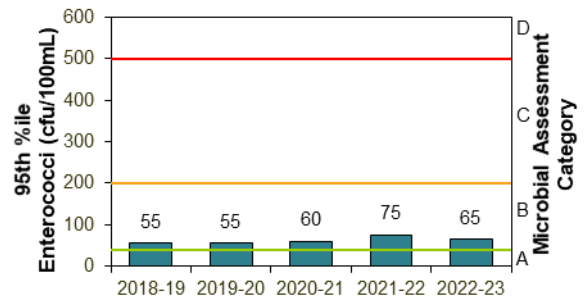
The site has been monitored since 1989.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Ocean beach	Aug 2021 to Apr 2023	93%	100	Stable

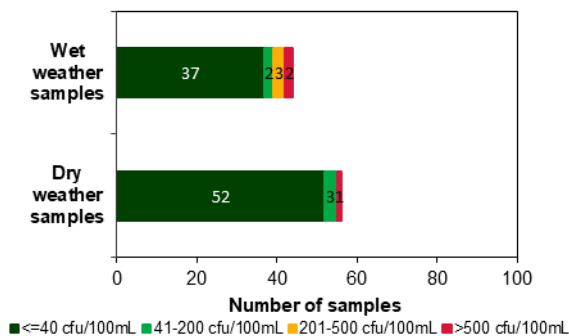
Sanitary inspection: Moderate



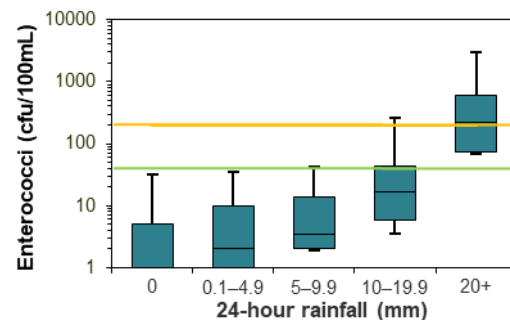
Microbial Assessment Category: B



Dry and wet weather water quality



Water quality in response to rainfall



South Curl Curl Beach

Beach grade:



South Curl Curl Beach is at the southern end of Curl Curl Beach and is patrolled by lifeguards from September to April.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but can be susceptible to pollution after rain, with several potential sources of faecal contamination.

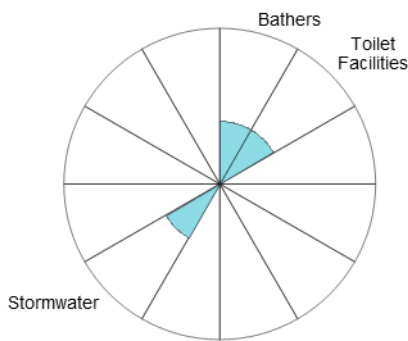
Enterococci levels generally increased with increasing rainfall, occasionally exceeding the safe swimming limit in response to 5 mm or more of rain, and regularly after 20 mm or more.

See 'How to read this report' for key to map.

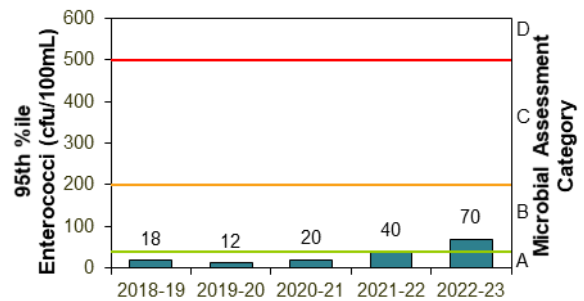
The site has been monitored since 1989.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Ocean beach	Aug 2021 to Apr 2023	93%	100	Declined

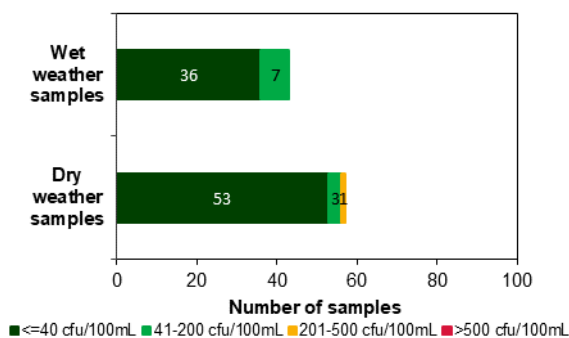
Sanitary inspection: Low



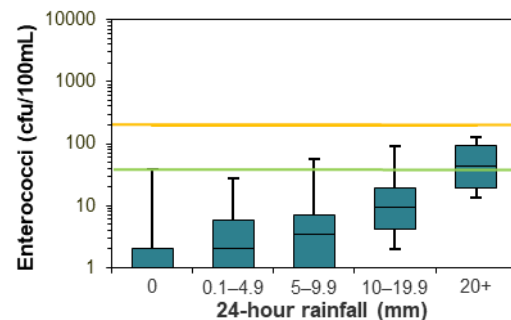
Microbial Assessment Category: B



Dry and wet weather water quality



Water quality in response to rainfall



Freshwater Beach

Beach grade: G



Freshwater Beach is approximately 350 m long and is patrolled by lifeguards from late August to May.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of faecal contamination including stormwater.

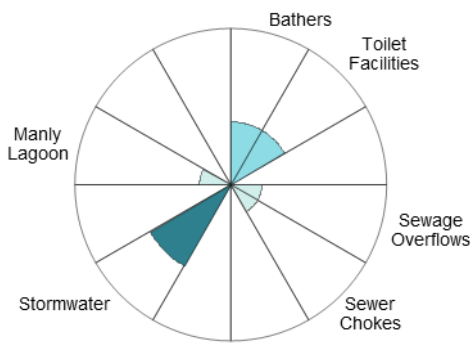
Enterococci levels generally increased with increasing rainfall, occasionally exceeding the safe swimming limit after light rain, and regularly after 20 mm or more.

See 'How to read this report' for key to map.

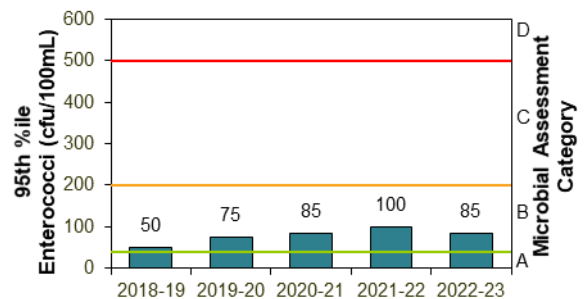
The site has been monitored since 1989.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Ocean beach	Aug 2021 to Apr 2023	93%	100	Stable

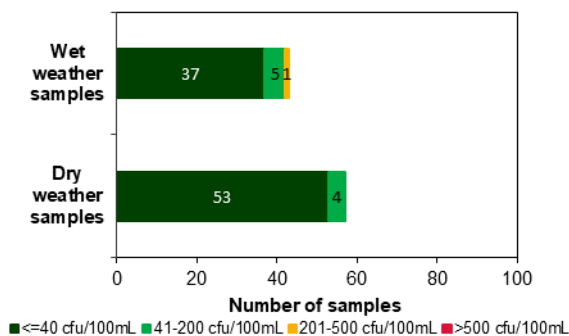
Sanitary inspection: Moderate



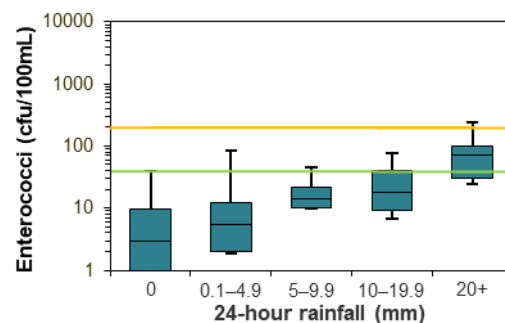
Microbial Assessment Category: B



Dry and wet weather water quality



Water quality in response to rainfall



Queenscliff Beach

Beach grade: G



Queenscliff Beach is located at the northern end of Manly Beach. Lifeguards patrol the beach from September to April.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of faecal contamination, including discharge from Manly Lagoon.

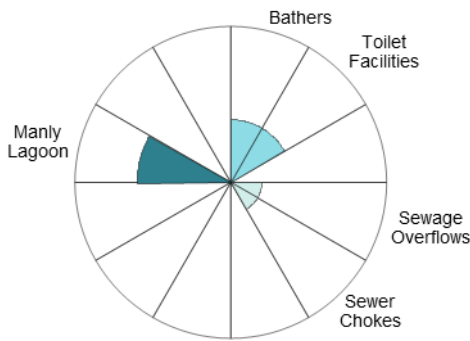
Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit after light rain, and often after 10 mm or more.

See 'How to read this report' for key to map.

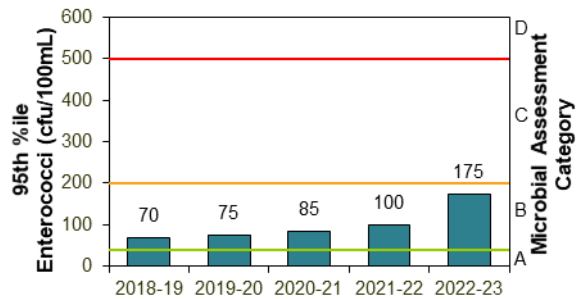
The site has been monitored since 1989.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Ocean beach	Aug 2021 to Apr 2023	97%	100	Stable

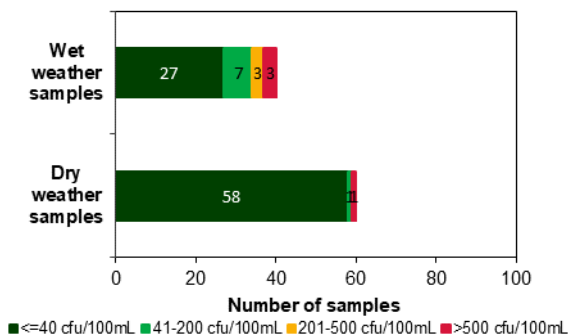
Sanitary inspection: Moderate



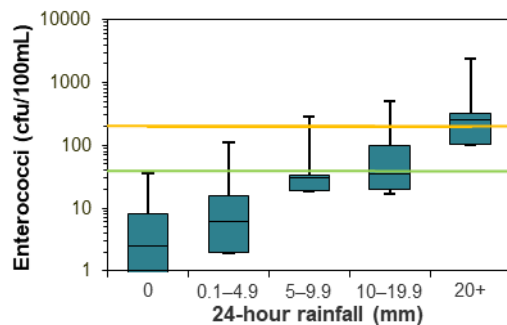
Microbial Assessment Category: B



Dry and wet weather water quality

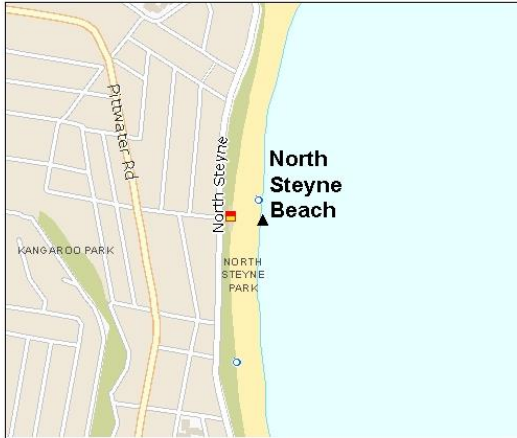


Water quality in response to rainfall



North Steyne Beach

Beach grade: G



See 'How to read this report' for key to map.

North Steyne Beach is the middle section of Manly Beach. Lifeguards patrol the beach from September to April.

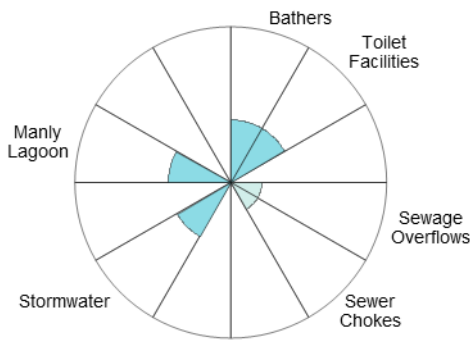
The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of faecal contamination including stormwater and discharge from Manly Lagoon.

Enterococci levels generally increased with increasing rainfall, occasionally exceeding the safe swimming limit after 5 mm or more of rain, and regularly after 20 mm or more.

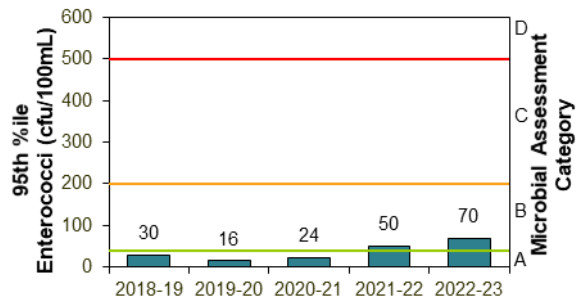
The site has been monitored since 1989.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Ocean beach	Aug 2021 to Apr 2023	98%	100	Stable

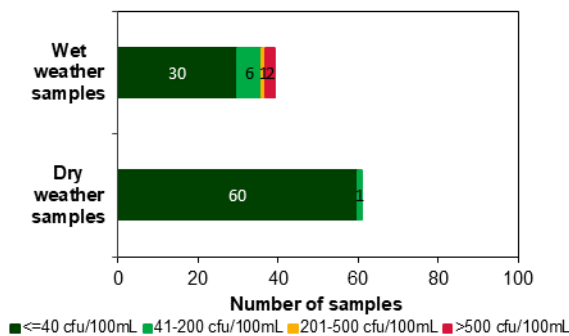
Sanitary inspection: Moderate



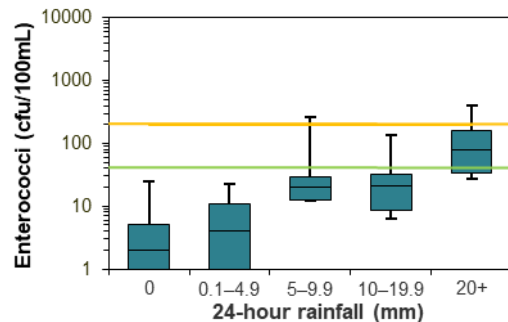
Microbial Assessment Category: B



Dry and wet weather water quality



Water quality in response to rainfall



South Steyne Beach

Beach grade: G



South Steyne Beach is at the southern end of Manly Beach. Lifeguards patrol the beach year round.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of faecal contamination including stormwater.

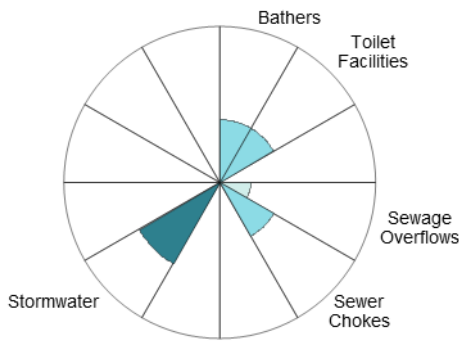
Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit after no rain, and often after 10 mm or more.

See 'How to read this report' for key to map.

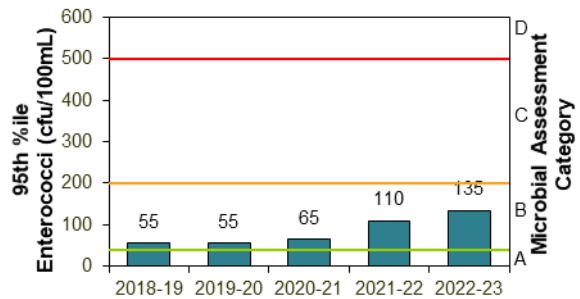
The site has been monitored since 1989.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Ocean beach	Aug 2021 to Apr 2023	95%	100	Stable

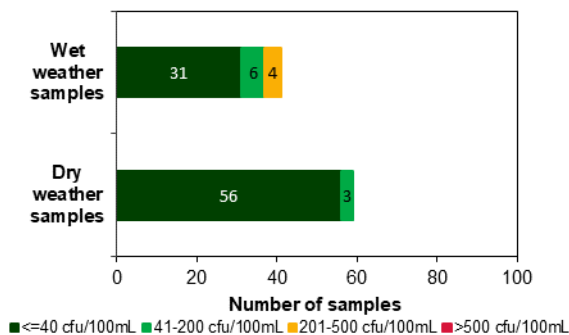
Sanitary inspection: Moderate



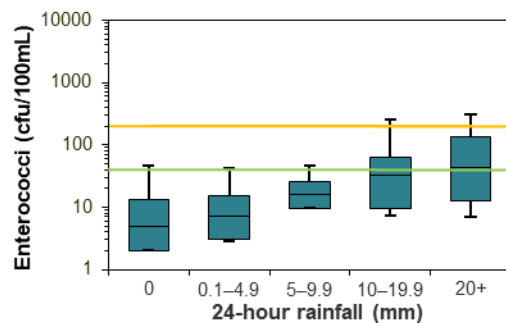
Microbial Assessment Category: B



Dry and wet weather water quality



Water quality in response to rainfall



Shelly Beach

Beach grade: **G**



Shelly Beach is backed by a picnic area and reserve and is not patrolled by lifeguards.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time, but may be susceptible to pollution after rain, with several potential sources of minor faecal contamination.

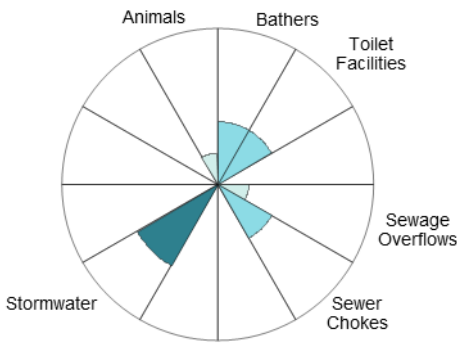
Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit after little or no rain, and regularly after 10 mm or more.

See 'How to read this report' for key to map.

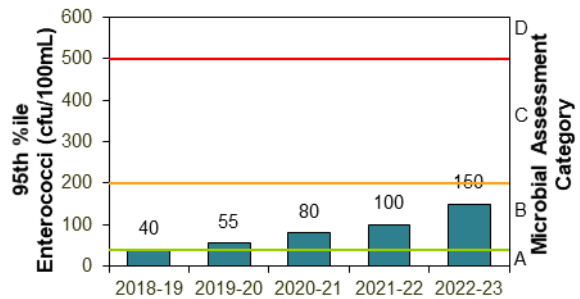
The site has been monitored since 1989.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Ocean beach	Aug 2021 to Apr 2023	95%	100	Stable

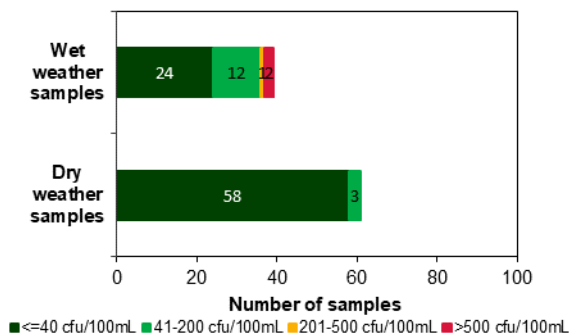
Sanitary inspection: Moderate



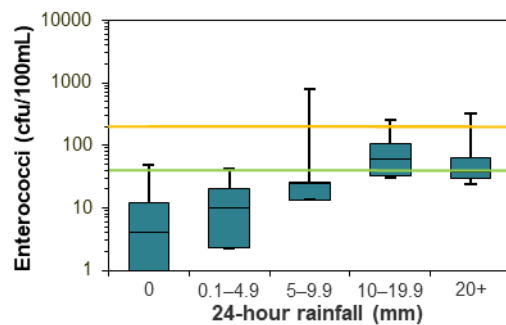
Microbial Assessment Category: B



Dry and wet weather water quality



Water quality in response to rainfall



Barrenjoey Beach

Beach grade: **G**



Barrenjoey Beach is approximately 1.5 km long and located on the north-eastern foreshore of Pittwater.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of faecal contamination.

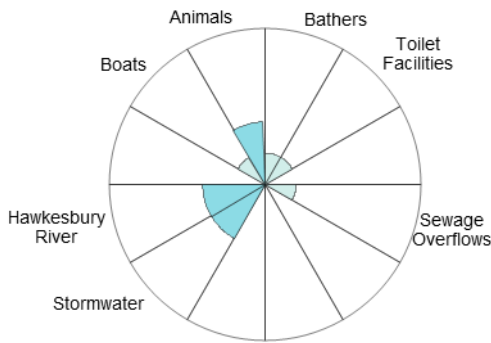
Enterococci levels generally increased with increasing rainfall, occasionally exceeding the safe swimming limit after little or no rain, and often after 20 mm or more.

See 'How to read this report' for key to map.

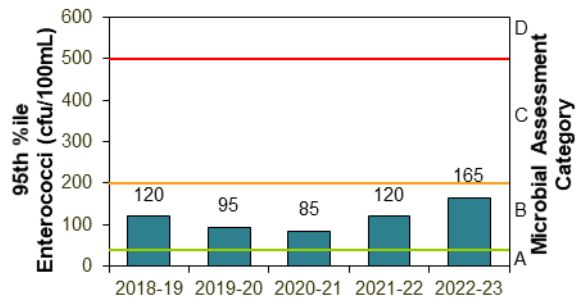
The site has been monitored since 1996.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	85%	100	Stable

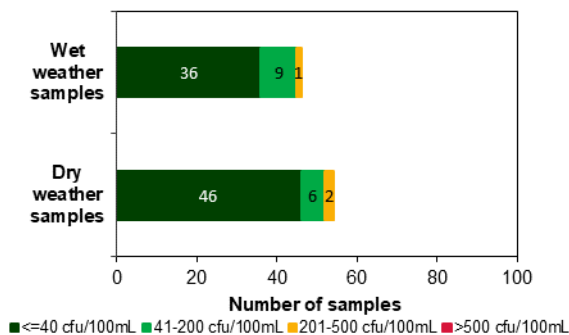
Sanitary inspection: Moderate



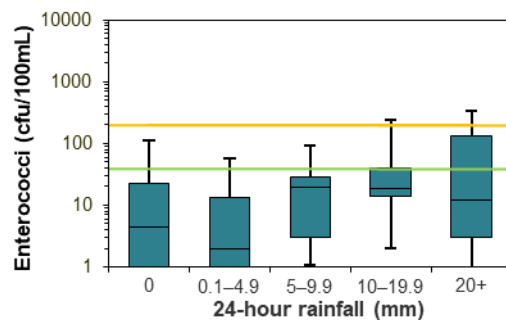
Microbial Assessment Category: B



Dry and wet weather water quality

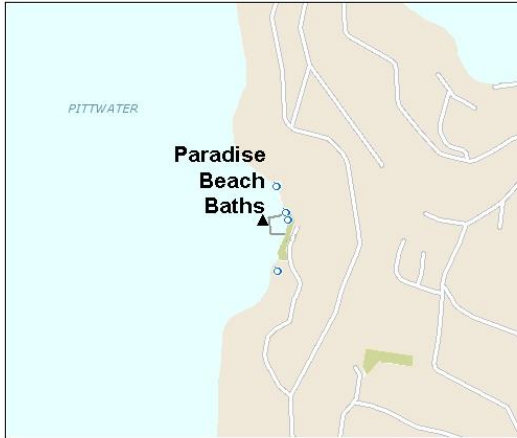


Water quality in response to rainfall



Paradise Beach Baths

Beach grade: G



Paradise Beach Baths is a 30 by 20 m netted swimming enclosure on the eastern foreshore of Pittwater.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of faecal contamination including stormwater.

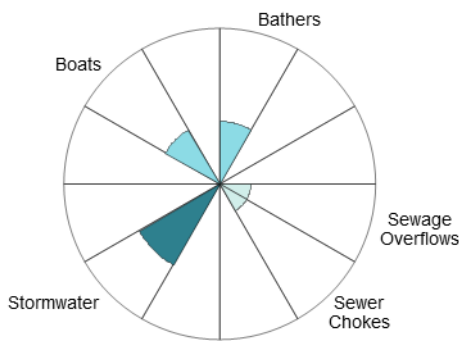
Enterococci levels generally increased with increasing rainfall, occasionally exceeding the safe swimming limit in response to light rain, and often after 10 mm or more.

See 'How to read this report' for key to map.

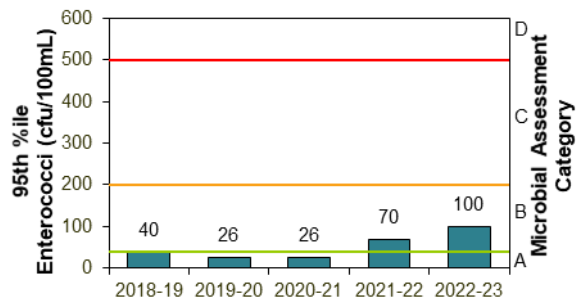
The site has been monitored since 1996.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	98%	100	Stable

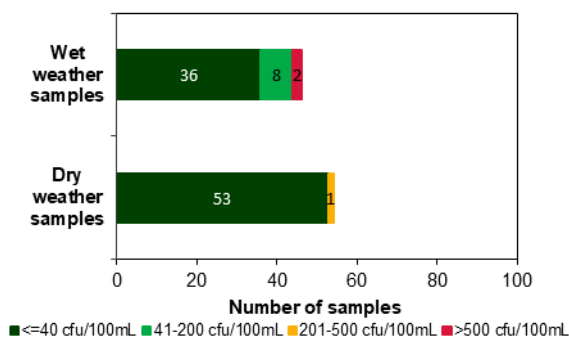
Sanitary inspection: Moderate



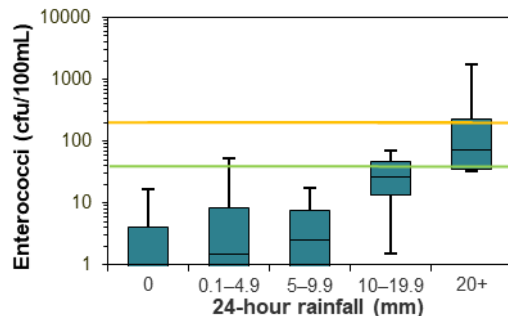
Microbial Assessment Category: B



Dry and wet weather water quality

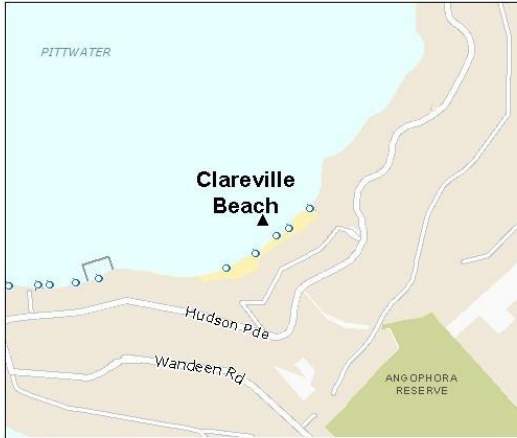


Water quality in response to rainfall



Clareville Beach

Beach grade: G



Clareville Beach is a narrow 250 m long beach located on the eastern foreshore of Pittwater.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of faecal contamination including stormwater.

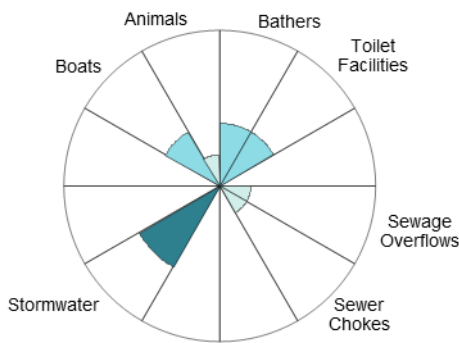
Enterococci levels generally increased with increasing rainfall, occasionally exceeding the safe swimming limit after light rain, and often after 10 mm or more.

See 'How to read this report' for key to map.

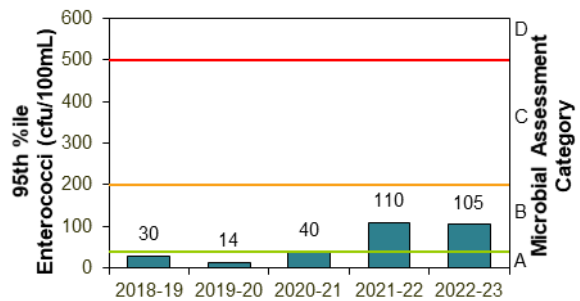
The site has been monitored since 1995.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	100%	100	Stable

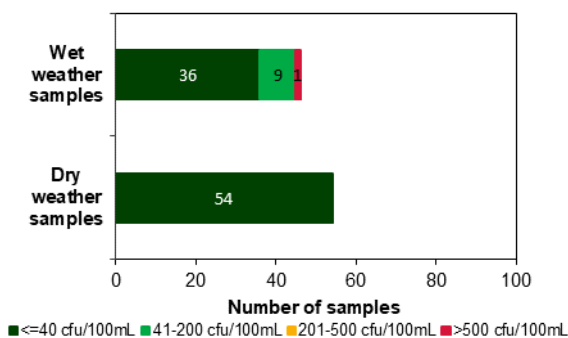
Sanitary inspection: Moderate



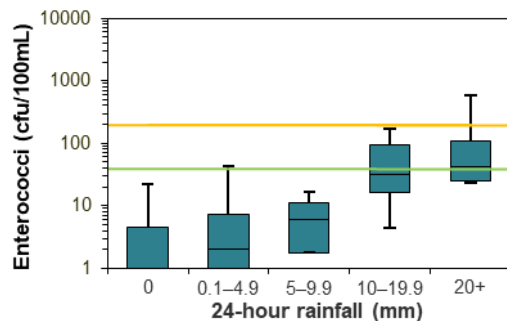
Microbial Assessment Category: B



Dry and wet weather water quality

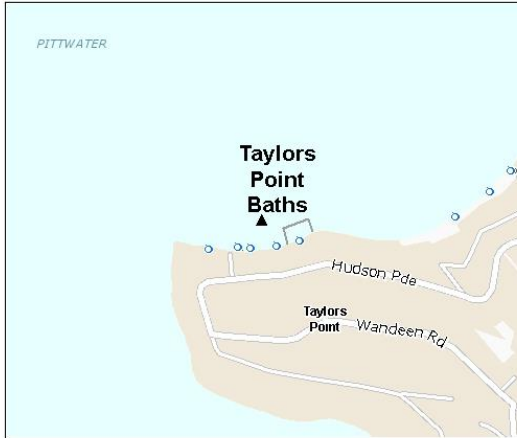


Water quality in response to rainfall



Taylor's Point Baths

Beach grade:



See 'How to read this report' for key to map.

Taylor's Point Baths is a 15 by 20 m netted swimming enclosure on the eastern foreshore of Pittwater.

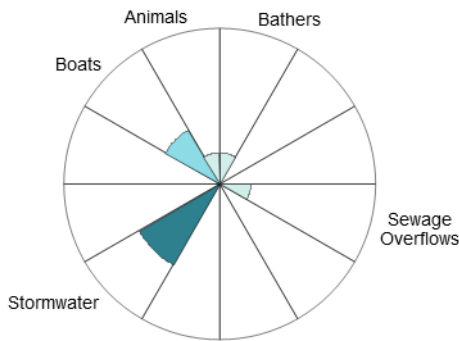
The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of faecal contamination including stormwater.

Enterococci levels generally increased with increasing rainfall, occasionally exceeding the safe swimming limit after 10 mm or more of rain, and regularly after 20 mm or more.

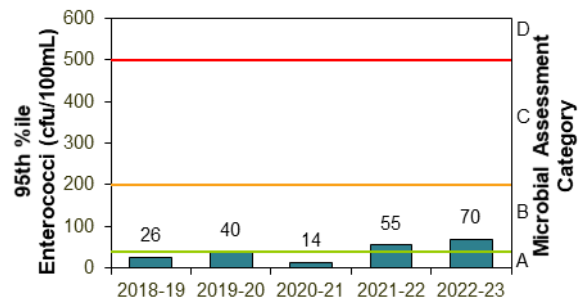
The site has been monitored since 2010.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	98%	100	Stable

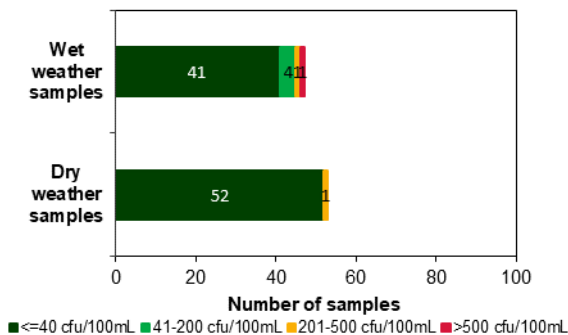
Sanitary inspection: Moderate



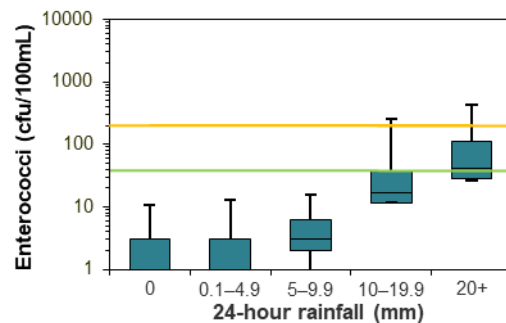
Microbial Assessment Category: B



Dry and wet weather water quality



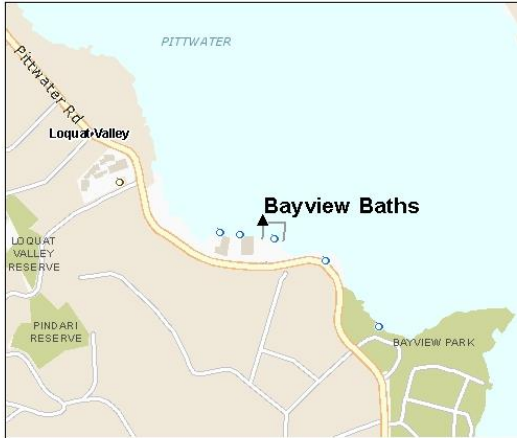
Water quality in response to rainfall



Bayview Baths



Beach grade:



Bayview Baths is a 20 by 40 m swimming enclosure on the southern foreshore of Pittwater.

The Beach Suitability Grade of Poor indicates microbial water quality is susceptible to faecal pollution, particularly after rainfall and occasionally during dry weather conditions, with several potential sources of faecal contamination including stormwater and sewage overflows.

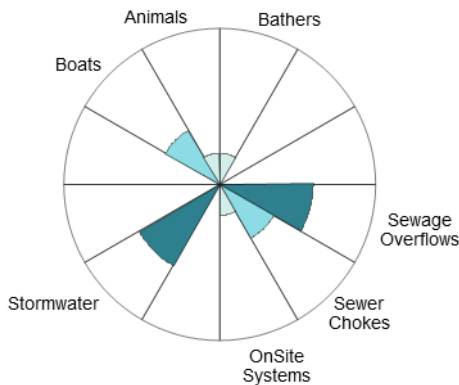
Enterococci levels generally increased with increasing rainfall, occasionally exceeding the safe swimming limit after little or no rain, and regularly after 10 mm or more.

See 'How to read this report' for key to map.

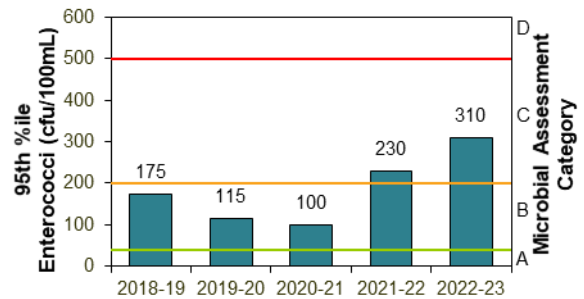
The site has been monitored since 1995.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	78%	100	Stable

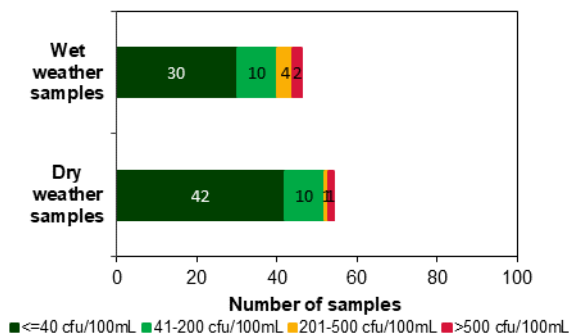
Sanitary inspection: Moderate



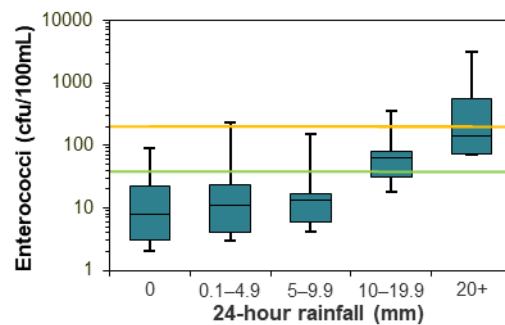
Microbial Assessment Category: C



Dry and wet weather water quality



Water quality in response to rainfall



Elvina Bay

Beach grade: G



Elvina Bay is located on the south-western foreshore of Pittwater. The swimming area is not netted.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of faecal contamination including stormwater.

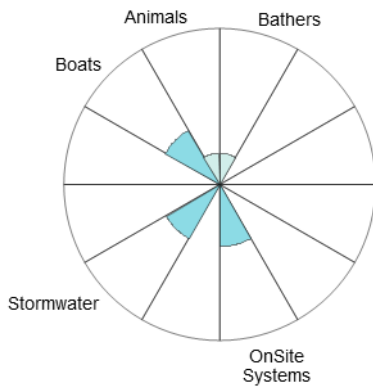
Enterococci levels generally increased with increasing rainfall, often exceeding the safe swimming limit after 10 mm or more of rain.

See 'How to read this report' for key to map.

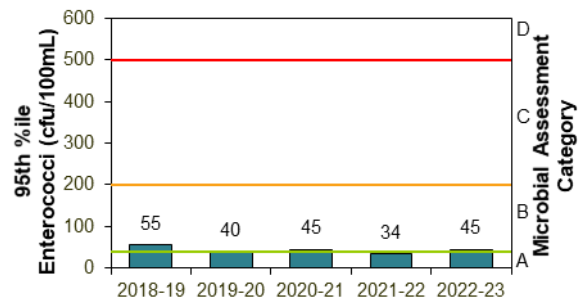
The site has been monitored since 1995.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Aug 2020 to Apr 2023	96%	100	Declined ↓

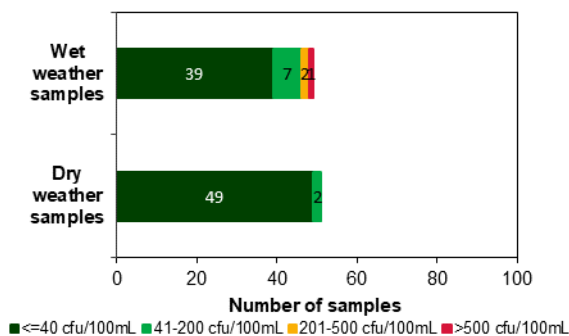
Sanitary inspection: Low



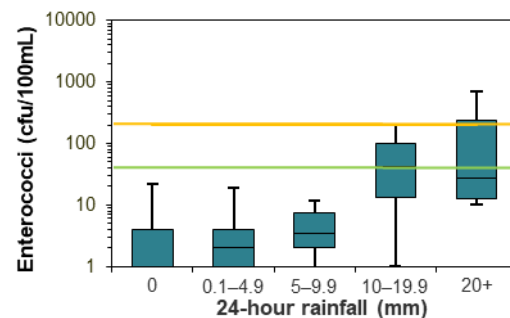
Microbial Assessment Category: B



Dry and wet weather water quality

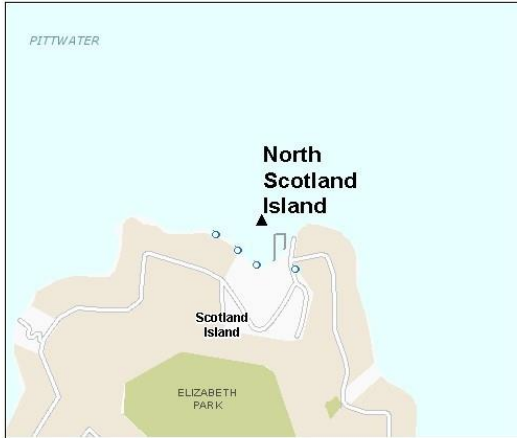


Water quality in response to rainfall



North Scotland Island

Beach grade: G



See 'How to read this report' for key to map.

The North Scotland Island swimming site is a 15 by 50 m netted enclosure located on the north side of Scotland Island in Pittwater.

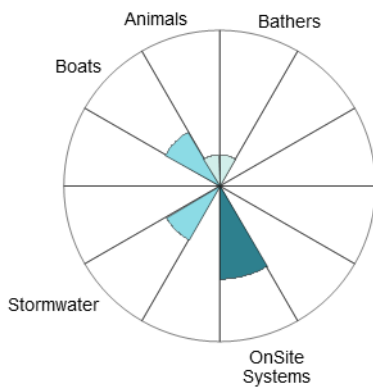
The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of faecal contamination including onsite systems.

Enterococci levels generally increased with increasing rainfall, occasionally exceeding the safe swimming limit after 10 mm or more of rain, and often after 20 mm or more.

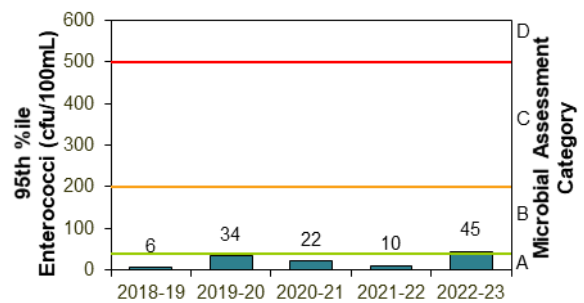
The site has been monitored since 1995.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Jul 2020 to Apr 2023	100%	100	Stable

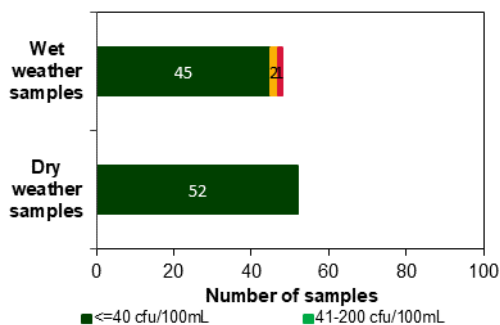
Sanitary inspection: Moderate



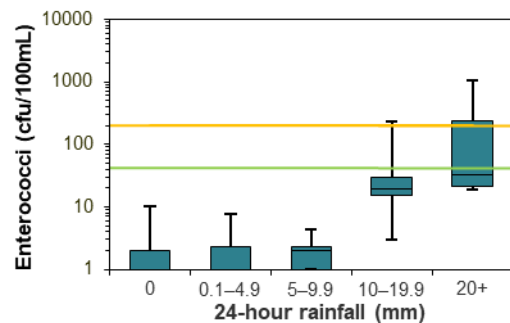
Microbial Assessment Category: B



Dry and wet weather water quality



Water quality in response to rainfall



South Scotland Island

Beach grade: G



The South Scotland Island swimming site is located at Carols Wharf on the southern side of Scotland Island. The location is not netted and is backed by a reserve.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of faecal contamination including onsite systems.

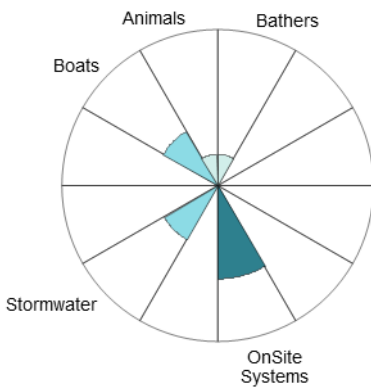
Enterococci levels generally increased with increasing rainfall, often exceeding the safe swimming limit after 10 mm or more of rain, and regularly after 20 mm or more.

The site has been monitored since 1996.

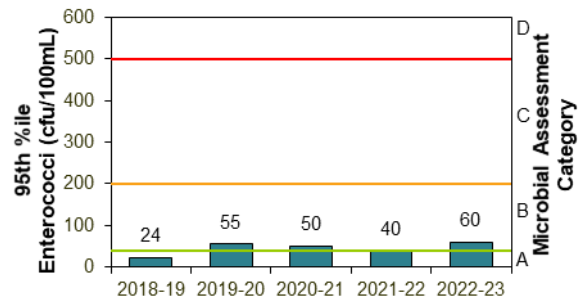
See 'How to read this report' for key to map.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Sep 2020 to Apr 2023	98%	100	Stable

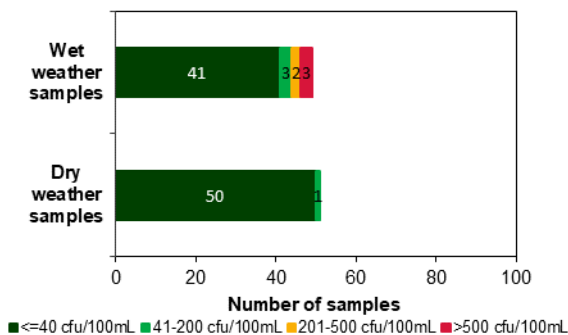
Sanitary inspection: Moderate



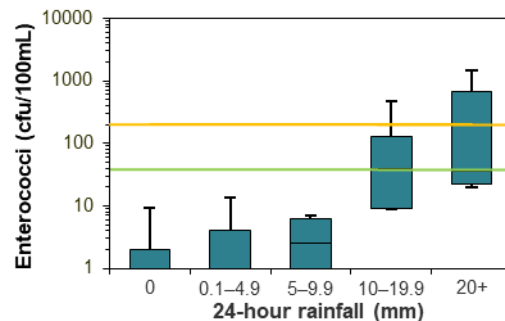
Microbial Assessment Category: B



Dry and wet weather water quality



Water quality in response to rainfall



The Basin

Beach grade:



The Basin is a 500 m sandy beach on the western side of Pittwater, backed by Ku-ring-gai Chase National Park.

The Beach Suitability Grade of Very Good indicates microbial water quality is considered suitable for swimming almost all of the time with few potential sources of significant faecal contamination.

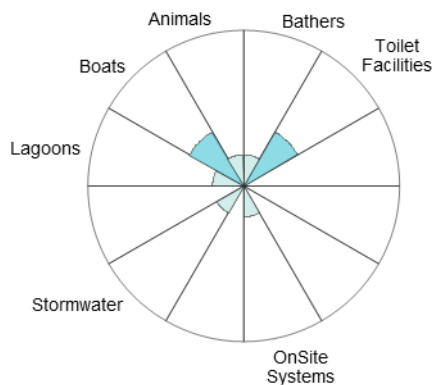
Enterococci levels generally increased with increasing rainfall, occasionally exceeding the safe swimming limit in response to 10 mm or more of rain, and often after 20 mm or more.

See 'How to read this report' for key to map.

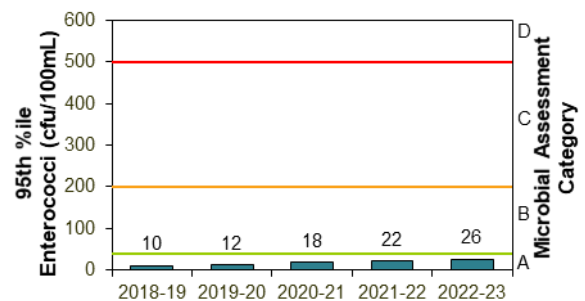
The site has been monitored since 1999.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Aug 2020 to Apr 2023	94%	100	Stable

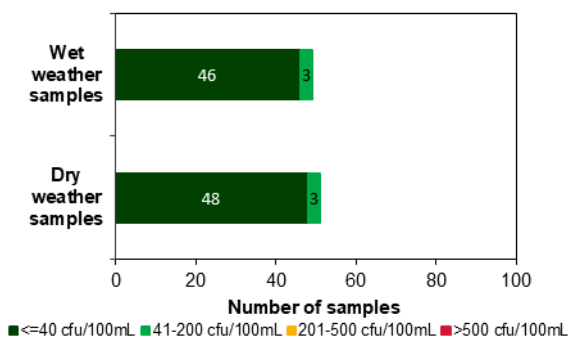
Sanitary inspection: Low



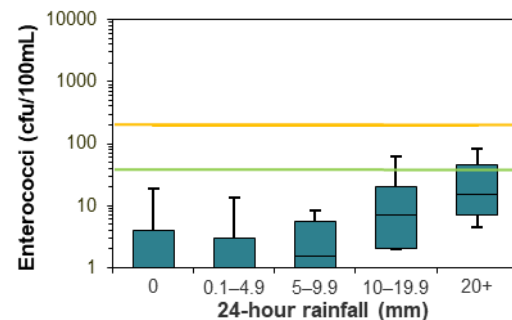
Microbial Assessment Category: A



Dry and wet weather water quality



Water quality in response to rainfall



Great Mackerel Beach

Beach grade:



Great Mackerel Beach is a 500 m long sandy beach on the north-western side of Pittwater.

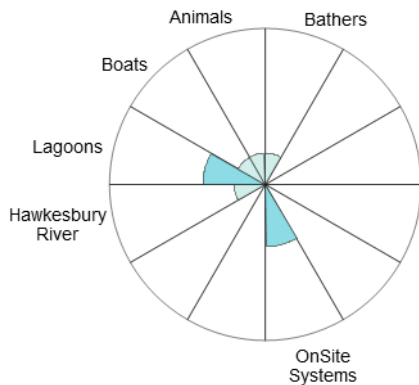
The Beach Suitability Grade of Very Good indicates microbial water quality is considered suitable for swimming almost all of the time with few potential sources of significant faecal contamination.

Enterococci levels generally increased with increasing rainfall, occasionally exceeding the safe swimming limit in response to 10 mm or more of rain, and often after 20 mm or more.

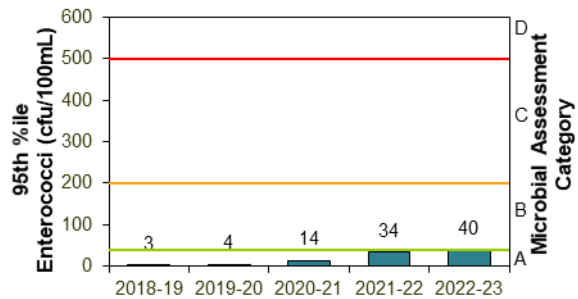
See 'How to read this report' for key to map. The site has been monitored since 1999.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Aug 2020 to Apr 2023	100%	100	Stable

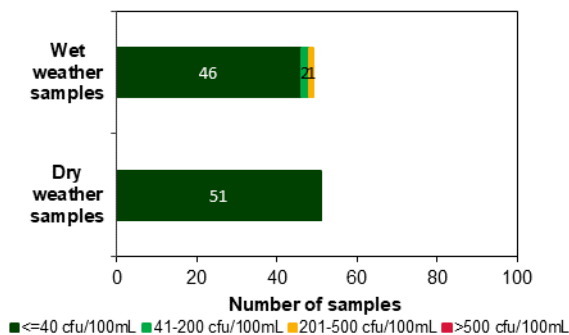
Sanitary inspection: Low



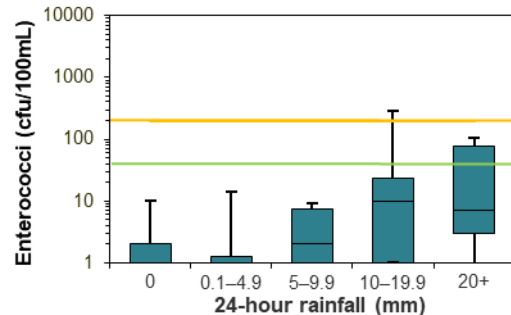
Microbial Assessment Category: A



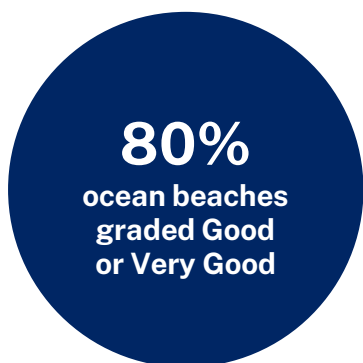
Dry and wet weather water quality



Water quality in response to rainfall



Central Sydney (Bondi to Little Bay & Sydney Harbour)



Overall results

Twenty-nine of the 37 swimming sites were graded as Very Good or Good in 2022–2023, a slight decline in performance from the previous year.

Percentage of sites graded as Very Good or Good

	2020–2021	2021–2022	2022–2023	Trend
Ocean beaches (10 sites)	100%	90%	80%	
Estuarine sites (26 sites)	85%	81%	77%	
Ocean baths (1 site)	100%	100%	100%	

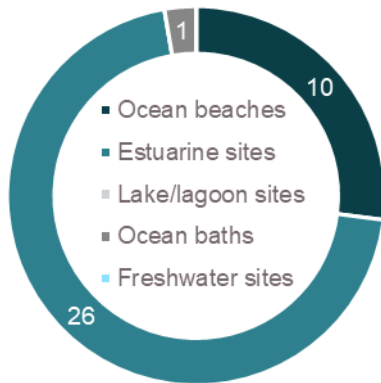
Beachwatch samples the ocean beaches every sixth day throughout the year, and the estuarine beaches every sixth day between October and April, and monthly from May to September.

See the section on **How to read this report** on page 132 for an explanation of the graphs, tables and Beach Suitability Grades.

Best beaches

Bondi Beach, Tamarama Beach, Bronte Beach, Clovelly Beach, Gordons Bay, Maroubra Beach, South Maroubra Beach and Little Bay Beach.

These sites had good water quality and were suitable for swimming most of the time.



Site types in Central Sydney region

Swimming sites monitored in the Central Sydney region include ocean beaches, ocean baths, and estuarine areas in Sydney Harbour and lower Parramatta River, with each site type having a different response to rainfall-related impacts.

Estuarine swimming sites did not perform as well as ocean beaches due to lower levels of flushing, which increase the time needed to disperse and dilute pollution inputs, taking longer to recover from stormwater events.

As a general precaution swimming should be avoided during and for at least one day after heavy rain at ocean beaches, and for up to 3 days at harbour beaches, or if there are signs of stormwater pollution such as discoloured water or floating debris.

Ocean beaches

Eight of the 10 ocean beaches were graded as Very Good or Good in 2022–2023.



Beach Suitability Grades for Central Sydney ocean beaches

Bondi Beach, Tamarama Beach, Bronte Beach, Clovelly Beach, Gordons Bay, Maroubra Beach, South Maroubra Beach and Little Bay Beach were graded as Good. Clovelly Beach and South Maroubra Beach were downgraded to Good from Very Good in the previous year, due to a decline in microbial water quality. These sites were frequently suitable for swimming during dry weather conditions but recorded elevated enterococci levels following rainfall. Elevated enterococci levels were occasionally recorded at Little Bay Beach in dry weather conditions.

Coogee Beach and Malabar Beach were graded as Poor. Malabar Beach was downgraded to Poor from Good in the previous year. Microbial water quality at these sites is frequently suitable for swimming during dry weather conditions, with 86% and 88% of dry weather samples within the safe swimming limit, respectively. However, enterococci levels increase following rainfall.

It is recommended that swimming be avoided at ocean beaches during and for up to one day following rainfall, or if there are signs of pollution such as discoloured water, flowing drains or floating debris.

The Coogee Beach Stormwater Quality Working Group was established in 2017 to improve water quality at Coogee Beach. The group consists of representatives from the community, Sydney Water, Beachwatch, council staff and the State Member for Coogee. In August 2017, the working group put recommendations to council to

investigate the feasibility of diverting more stormwater from the beach, and the development of a community education and marketing campaign to better inform the local community about stormwater and its impact on local beaches.

In May 2022, with funding from the NSW Department of Planning and Environment, a consultant was appointed and met with the Coogee Beach Stormwater Quality Working Group to investigate and design (including water harvesting assessment) a solution for stormwater diversion at Coogee Beach. The final detailed design for stormwater diversion was endorsed by the working group in June 2023.



Beach Suitability Grades for Central Sydney estuarine beaches

Estuarine beaches

Twenty of the 26 estuarine swimming sites in Sydney Harbour were graded as Very Good or Good in 2022–2023.

Twenty of the estuarine swimming sites in Sydney Harbour were graded as Good: Nielsen Park, Camp Cove, Watsons Bay, Parsley Bay, Murray Rose Pool, Dawn Fraser Pool, Chiswick Baths, Cabarita Beach, Woodford Bay, Greenwich Baths, Hayes St Beach, Clifton Gardens, Balmoral Baths, Edwards Beach, Chinamans Beach, Clontarf Pool, Forty Baskets Pool, Fairlight Beach, Manly Cove and Little Manly Cove. Nielsen Park was downgraded to Good, due to a slight decline in microbial water quality. These sites had mostly good water quality, although enterococci levels increased following rainfall.

Six estuarine swimming sites in Sydney Harbour were graded as Poor in 2022–2023: Rose Bay Beach, Tambourine Bay, Woolwich Baths, Northbridge Baths, Gurney Crescent Baths and Davidson Reserve. Water quality at these swimming sites was mostly suitable for swimming during dry weather conditions, with elevated bacterial levels recorded following rainfall.

While Tambourine Bay in Lane Cove River, Davidson Reserve in Middle Harbour, Rose Bay Beach in Port Jackson and Northbridge Baths in Middle Harbour continued to be graded as Poor from the previous year, Woolwich Baths in lower Lane Cove River and Gurney Crescent Baths in Middle Harbour were downgraded to Poor from Good and Fair grades, respectively, due to a decline in microbial water quality. Microbial water quality at Woolwich Baths and Gurney Crescent Baths is frequently suitable for swimming during dry weather conditions, with 83% and 93% of dry weather samples within the safe swimming limit, respectively. However,

enterococci levels increase following rainfall. These sites are more susceptible to wet weather impacts and have several significant sources of faecal contamination including upstream sources, stormwater and sewage overflows.

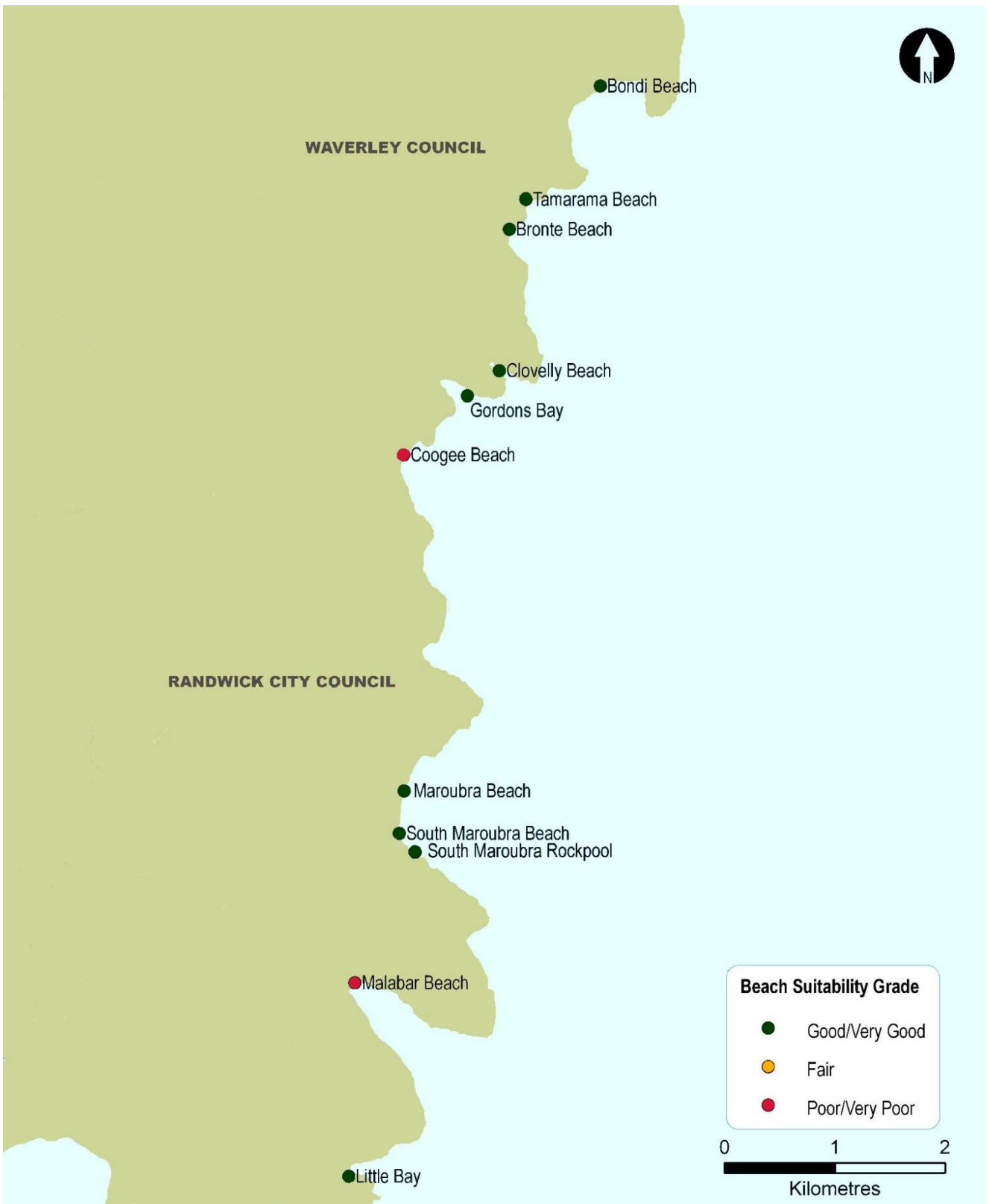
Estuarine sites are not as well flushed as ocean beaches, and so can take longer to recover from stormwater events. As a precaution, swimming should be avoided at Sydney Harbour swimming sites during and for up to 3 days following rainfall or if there are signs of pollution such as discoloured water, flowing stormwater drains or floating debris.



Beach Suitability Grades for Central Sydney ocean baths

Ocean baths

South Maroubra Rockpool was graded as Good in 2022–2023, similar to previous years. Water quality is frequently suitable for swimming during dry weather conditions, with 88% of dry weather samples within the safe swimming limit. Enterococci levels increased with increasing rainfall. Swimming should be avoided during and for up to one day following rainfall, or if there are any signs of pollution such as the stormwater drain discharging to the site, discoloured water or floating debris.



Sampling sites and Beach Suitability Grades at Sydney's central beaches



Sampling sites and Beach Suitability Grades in Sydney Harbour

Bondi Beach

Beach grade: G



Bondi Beach is 800 m long and backed by a promenade, carpark and parklands, and lifeguards patrol the beach year round.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of faecal contamination including stormwater.

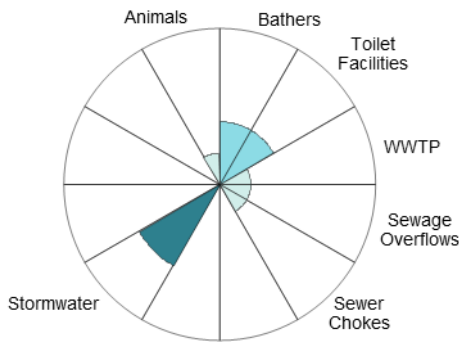
Enterococci levels generally increased with increasing rainfall, occasionally exceeding the safe swimming limit after 5 mm of rainfall, and regularly after 20 mm or more.

See 'How to read this report' for key to map.

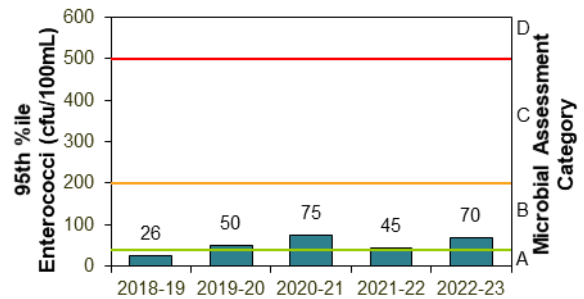
The site has been monitored since 1989.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Ocean beach	Aug 2021 to Apr 2023	98%	100	Stable

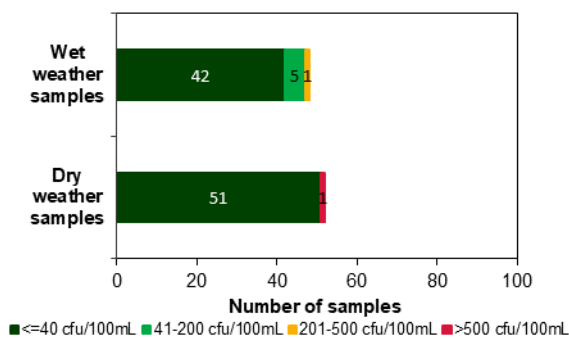
Sanitary inspection: Moderate



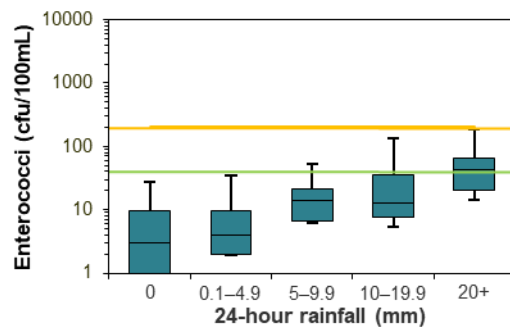
Microbial Assessment Category: B



Dry and wet weather water quality



Water quality in response to rainfall



Tamarama Beach

Beach grade: G



Tamarama Beach is approximately 80 m long and lifeguards patrol the beach from late September to April.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of faecal contamination including stormwater.

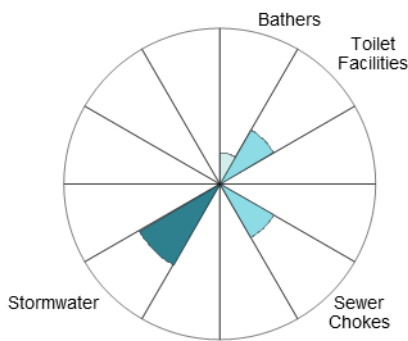
Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit after light rain, and often in response to 5 mm or more.

See 'How to read this report' for key to map.

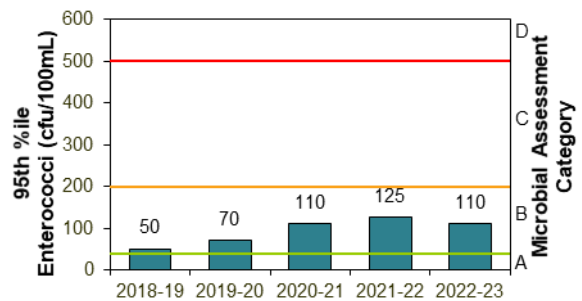
The site has been monitored since 1989.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Ocean beach	Aug 2021 to Apr 2023	98%	100	Stable

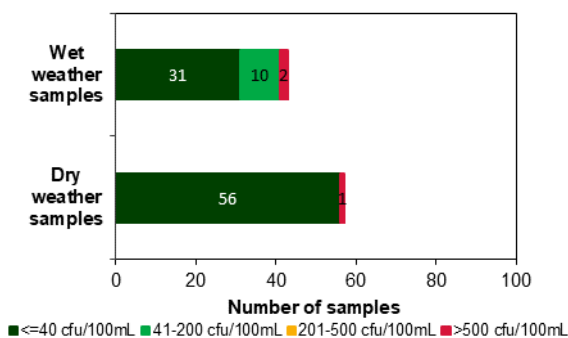
Sanitary inspection: Moderate



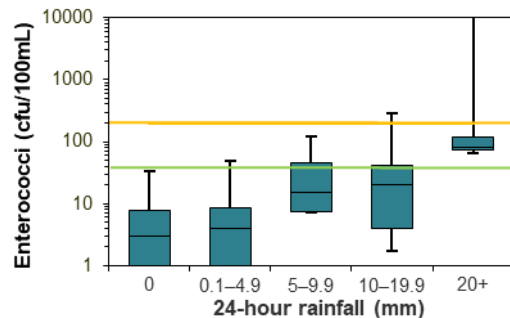
Microbial Assessment Category: B



Dry and wet weather water quality



Water quality in response to rainfall



Bronte Beach

Beach grade: G



Bronte Beach is 250 m long and backed by a large park and picnic area. Lifeguards patrol the beach from September to May.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of faecal contamination including stormwater.

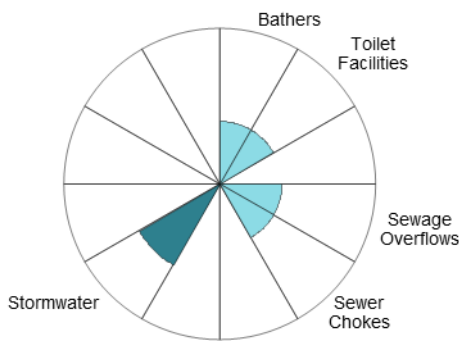
Enterococci levels generally increased with increasing rainfall, occasionally exceeding the safe swimming limit after light rain, and often after 10 mm or more.

See 'How to read this report' for key to map.

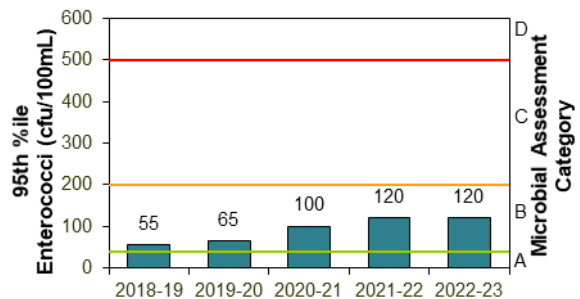
The site has been monitored since 1989.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Ocean beach	Aug 2021 to Apr 2023	90%	100	Stable

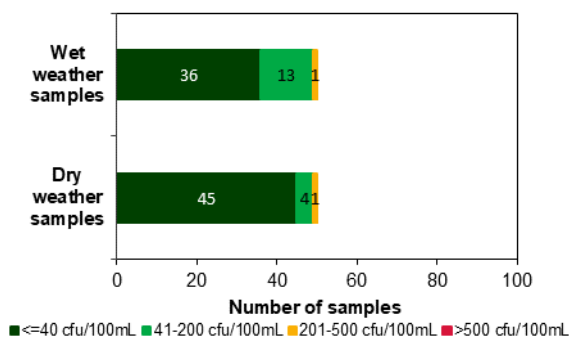
Sanitary inspection: Moderate



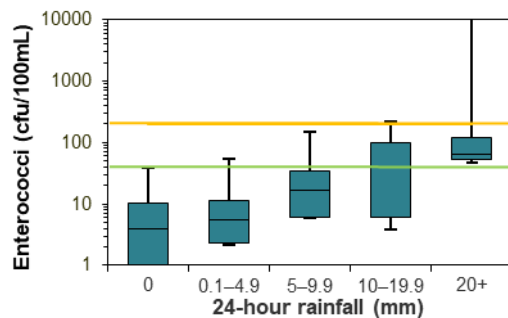
Microbial Assessment Category: B



Dry and wet weather water quality

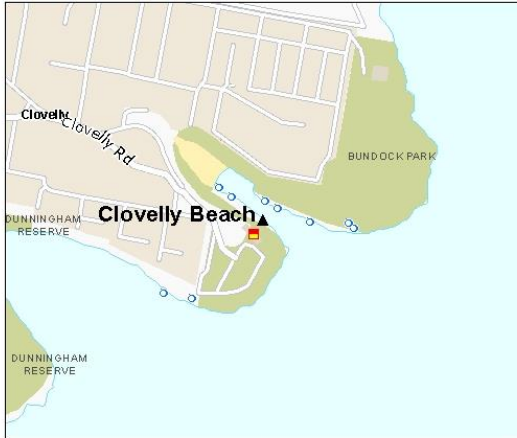


Water quality in response to rainfall



Clovelly Beach

Beach grade:



Clovelly Beach is at the end of a long and narrow bay and is protected from ocean swells, and is patrolled from late September to April.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of faecal contamination including stormwater.

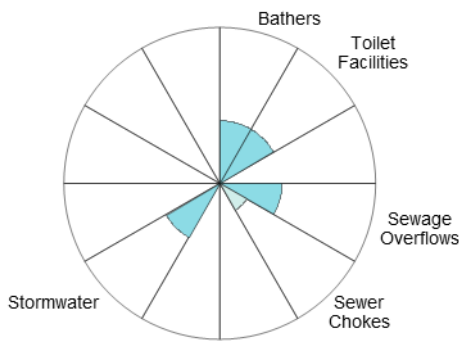
Enterococci levels generally increased with increasing rainfall, occasionally exceeding the safe swimming limit after 10 mm or more of rain, and often after 20 mm or more.

The site has been monitored since 1989.

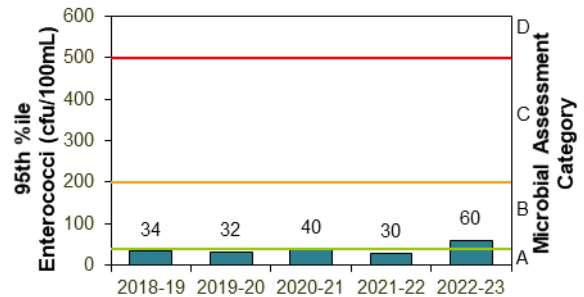
See 'How to read this report' for key to map.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Ocean beach	Aug 2021 to Apr 2023	98%	100	Declined

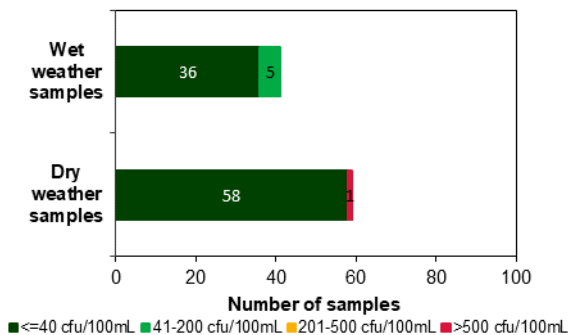
Sanitary inspection: Low



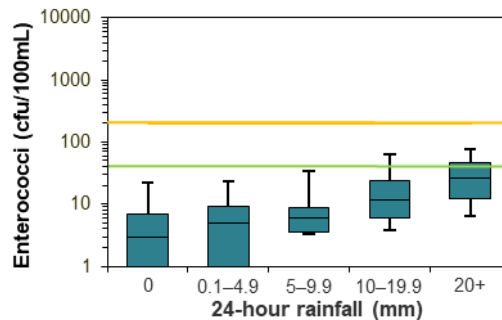
Microbial Assessment Category: B



Dry and wet weather water quality



Water quality in response to rainfall



Gordons Bay

Beach grade:



Gordons Bay is long and narrow with a small beach located at the end of the bay and is not patrolled by lifeguards.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of faecal contamination.

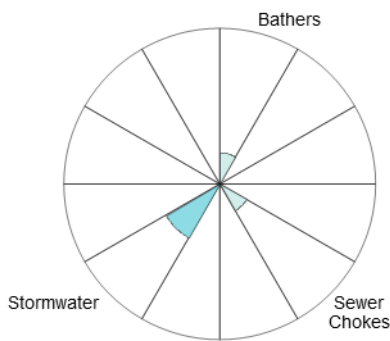
Enterococci levels generally increased with increasing rainfall, occasionally exceeding the safe swimming limit after light rain, and often after 10 mm or more.

See 'How to read this report' for key to map.

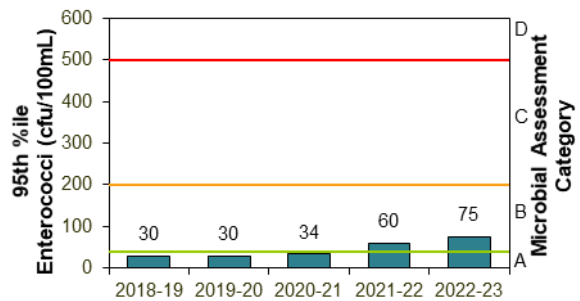
The site has been monitored since 2013.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Ocean beach	Jul 2021 to Apr 2023	97%	100	Stable

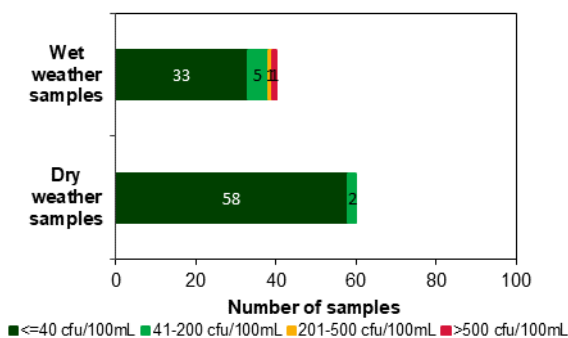
Sanitary inspection: Low



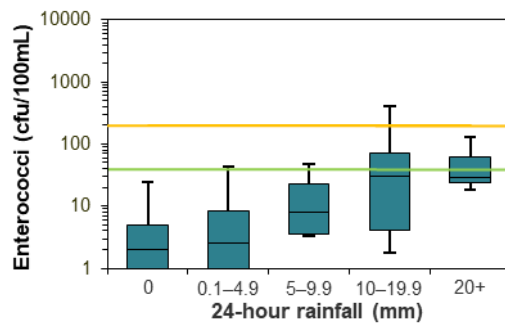
Microbial Assessment Category: B



Dry and wet weather water quality



Water quality in response to rainfall



Coogee Beach

Beach grade: P



Coogee Beach is 400 m long and is backed by a promenade and parklands and is patrolled by lifeguards all year round.

The Beach Suitability Grade of Poor indicates microbial water quality is susceptible to faecal pollution, particularly after rainfall and occasionally during dry weather conditions, with several potential sources of faecal contamination including stormwater.

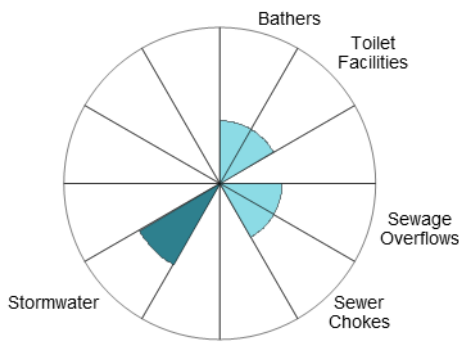
Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit after little or no rain, and regularly after 10 mm or more.

See 'How to read this report' for key to map.

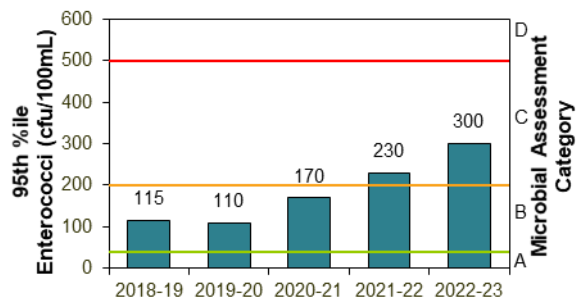
The site has been monitored since 1989.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Ocean beach	Aug 2021 to Apr 2023	86%	100	Stable

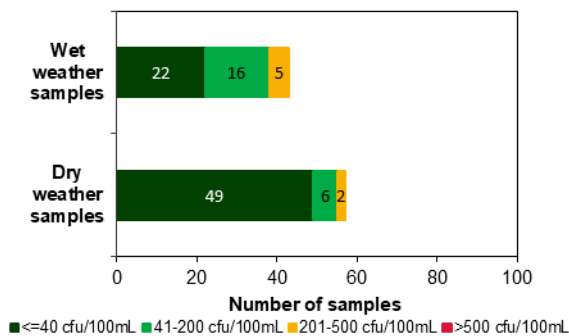
Sanitary inspection: Moderate



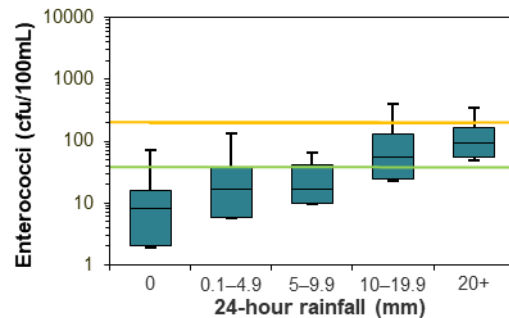
Microbial Assessment Category: C



Dry and wet weather water quality



Water quality in response to rainfall



Maroubra Beach

Beach grade:



Maroubra Beach is 1 km long and lifeguards patrol the beach all year round.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of faecal contamination.

Enterococci levels generally increased with increasing rainfall, occasionally exceeding the safe swimming limit after 5 mm or more of rain, and often after 20 mm or more.

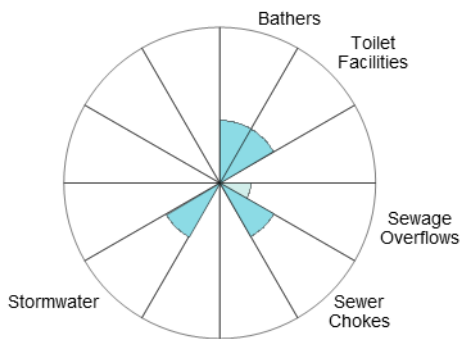
The site has been monitored since 1989.



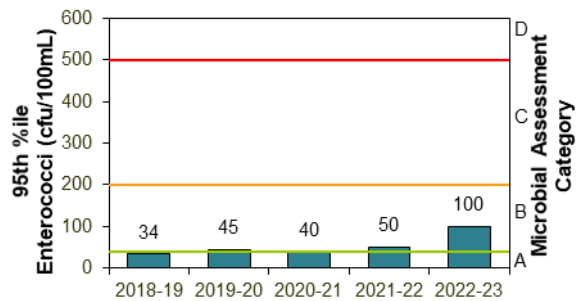
See 'How to read this report' for key to map.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Ocean beach	Aug 2021 to Apr 2023	95%	100	Stable

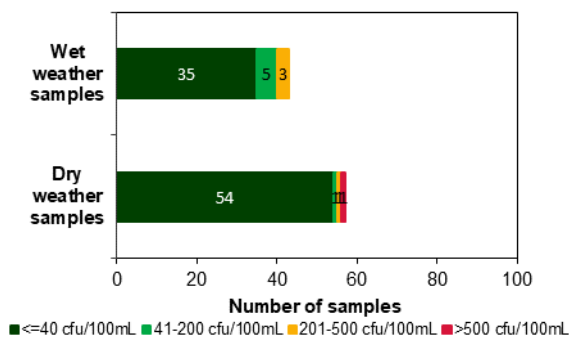
Sanitary inspection: Low



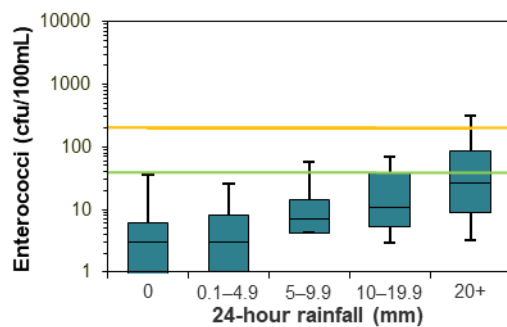
Microbial Assessment Category: B



Dry and wet weather water quality



Water quality in response to rainfall



South Maroubra Beach

Beach grade: **G**



South Maroubra Beach is located at the southern end of Maroubra Beach and lifeguards patrol the beach all year round.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of faecal contamination.

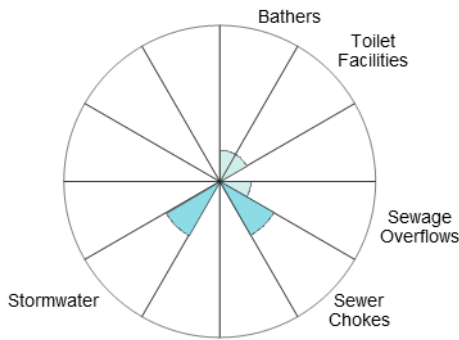
Enterococci levels generally increased with increasing rainfall, occasionally exceeding the safe swimming limit after 5 mm or more of rain, and often after 20 mm or more.

See 'How to read this report' for key to map.

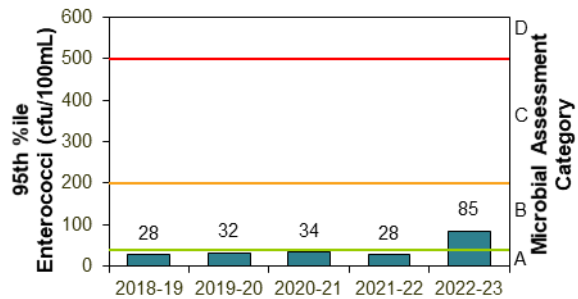
The site has been monitored since 2012.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Ocean beach	Aug 2021 to Apr 2023	91%	100	Declined

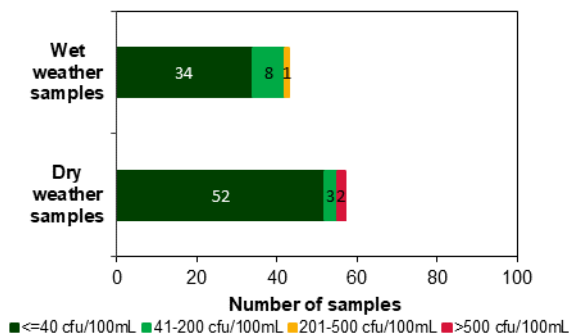
Sanitary inspection: Low



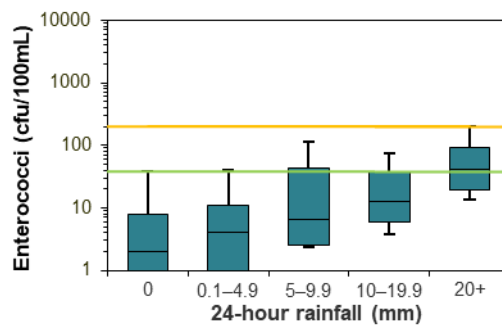
Microbial Assessment Category: B



Dry and wet weather water quality



Water quality in response to rainfall



South Maroubra Rockpool

Beach grade: G



See 'How to read this report' for key to map.

South Maroubra Rockpool is located at the southern end of Maroubra Beach and is not patrolled. During very low tides, the rockpool may be empty.

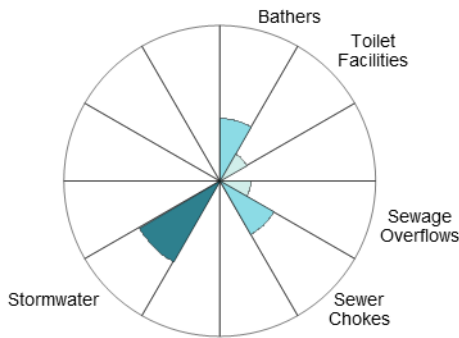
The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of faecal contamination including stormwater.

Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit after little or no rain, and often after 5 mm or more.

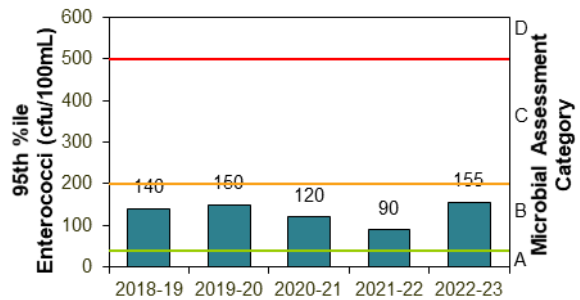
The site has been monitored since 2012.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Ocean baths	Aug 2021 to Apr 2023	88%	100	Stable

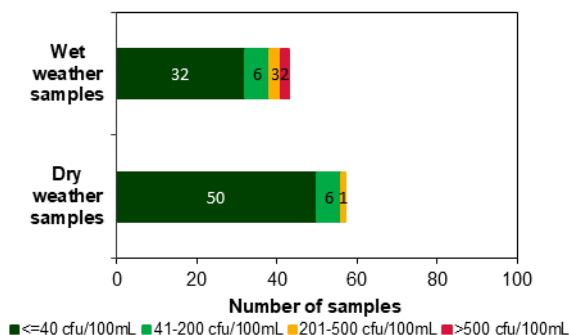
Sanitary inspection: Moderate



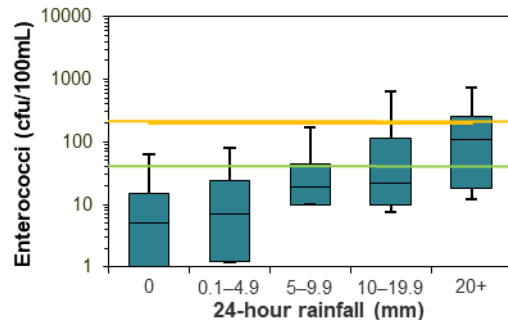
Microbial Assessment Category: B



Dry and wet weather water quality

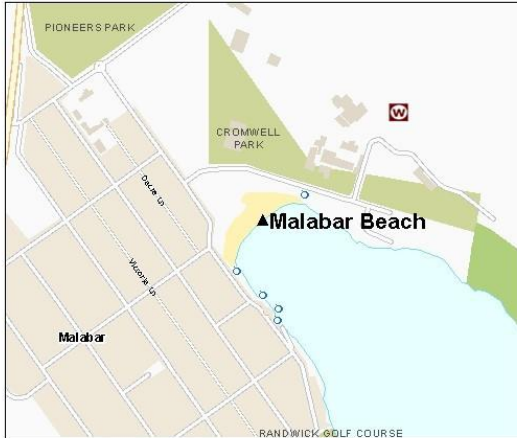


Water quality in response to rainfall



Malabar Beach

Beach grade: P



Malabar Beach is 150 m long and located at the end of a long, narrow bay and is not patrolled by lifeguards.

The Beach Suitability Grade of Poor indicates microbial water quality is susceptible to faecal pollution, particularly after rainfall and occasionally during dry weather conditions, with several potential sources of faecal contamination including stormwater.

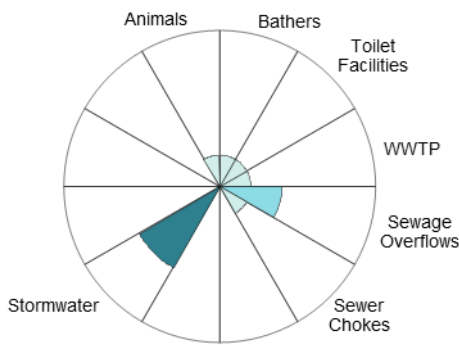
Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit after little or no rain, and often after 5 mm or more.

See 'How to read this report' for key to map.

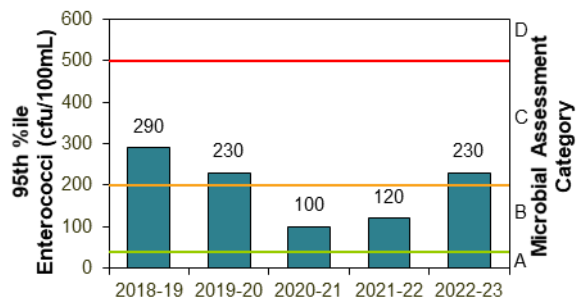
The site has been monitored since 1989.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Ocean beach	Aug 2021 to Apr 2023	88%	100	Declined ↓

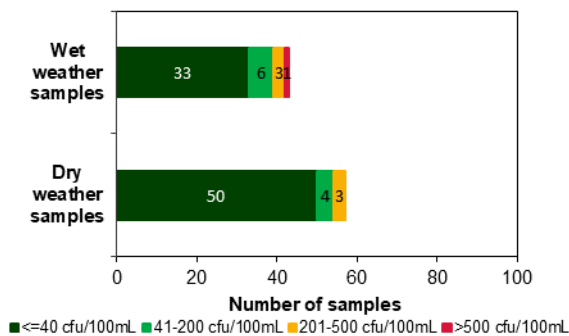
Sanitary inspection: Moderate



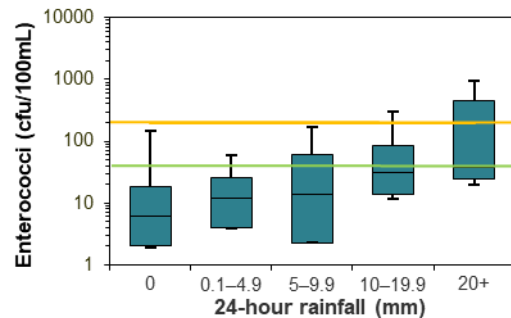
Microbial Assessment Category: C



Dry and wet weather water quality



Water quality in response to rainfall



Little Bay Beach

Beach grade: G



Little Bay Beach is a small, crescent-shaped beach bounded by rocky headlands to the north and south and is not patrolled.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but can be susceptible to pollution after rain, with several potential sources of faecal contamination including stormwater.

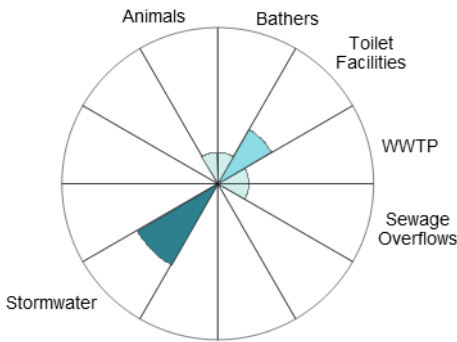
Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit after little or no rain, and often after 10 mm or more.

See 'How to read this report' for key to map.

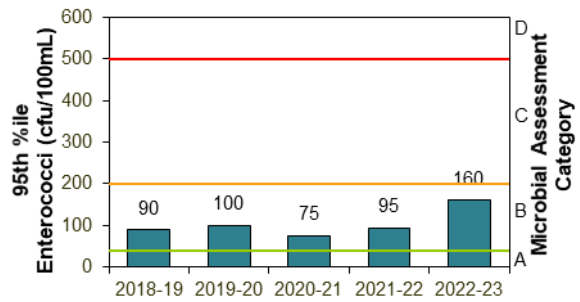
The site was monitored from 1989 until 1995, and since 2006.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Ocean beach	Aug 2021 to Apr 2023	89%	100	Stable

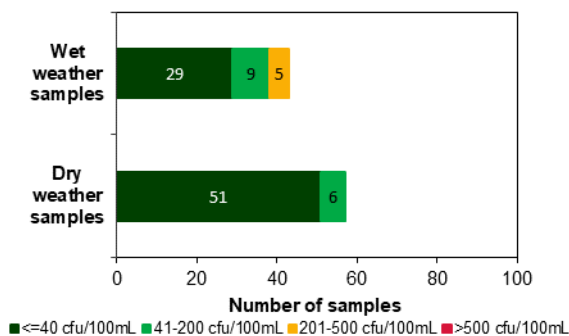
Sanitary inspection: Moderate



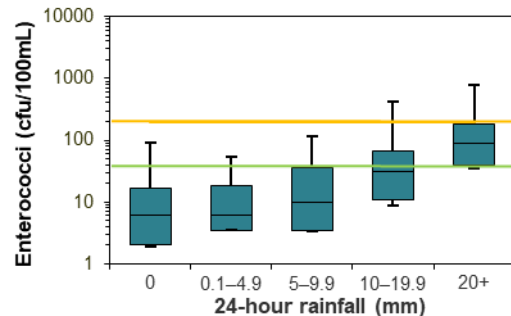
Microbial Assessment Category: B



Dry and wet weather water quality

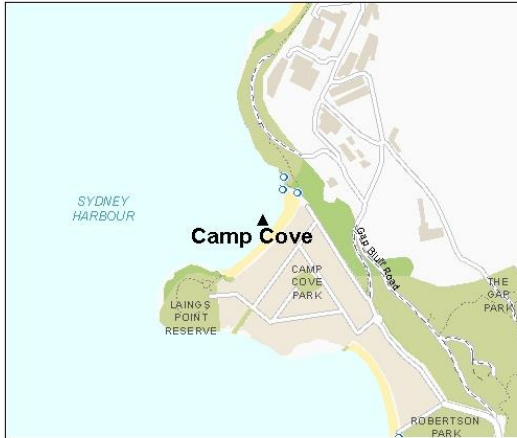


Water quality in response to rainfall



Camp Cove

Beach grade:



The Camp Cove swimming area is not netted and is backed by a narrow stretch of beach. Lifeguards patrol this swimming site during the summer period.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of faecal contamination.

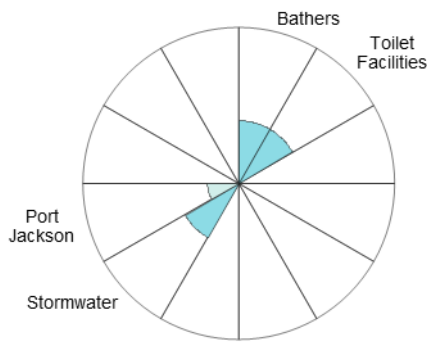
Enterococci levels increased slightly with increasing rainfall, often exceeding the safe swimming limit in response to 20 mm or more of rain.

See 'How to read this report' for key to map.

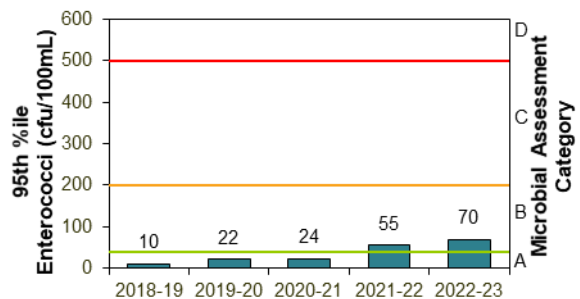
The site was monitored since 2015.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	94%	100	Stable

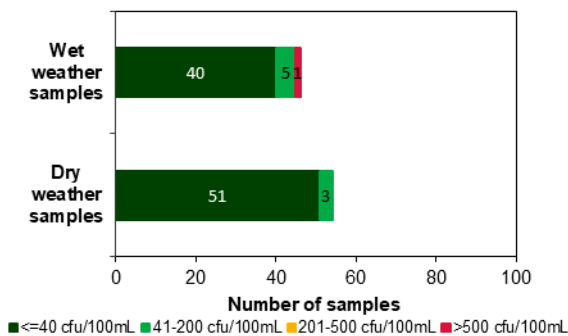
Sanitary inspection: Low



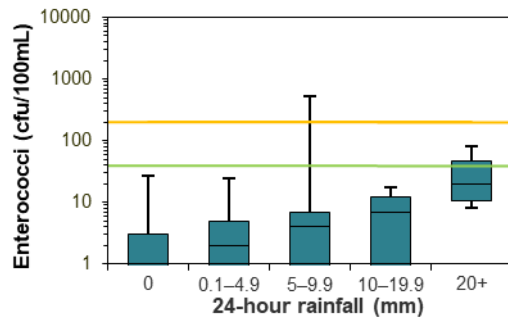
Microbial Assessment Category: B



Dry and wet weather water quality

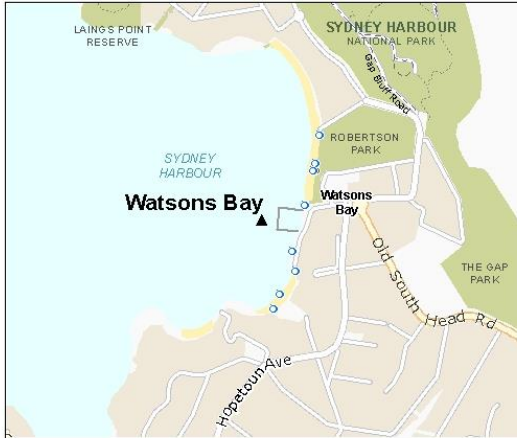


Water quality in response to rainfall



Watsons Bay

Beach grade: G



The swimming site is a 20 by 40 m enclosed tidal swimming area with a narrow sandy beach and is backed by parklands with picnic facilities.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but can be susceptible to pollution after rain, with several potential sources of faecal contamination including stormwater.

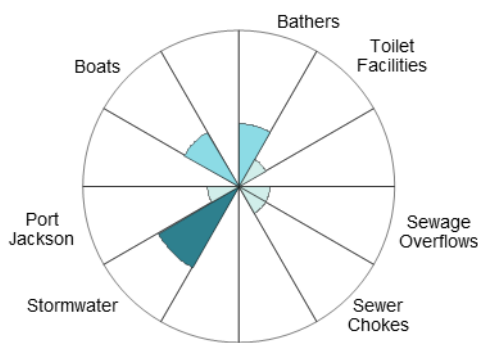
Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit after light rain, and often after 10 mm or more.

The site has been monitored since 1994.

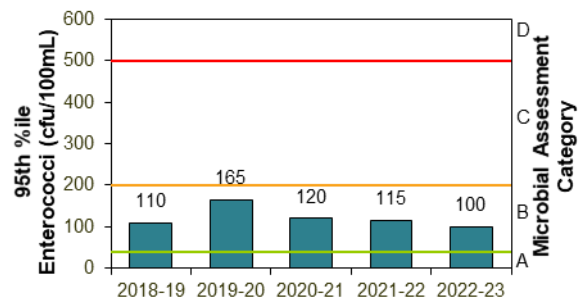
See 'How to read this report' for key to map.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	96%	100	Stable

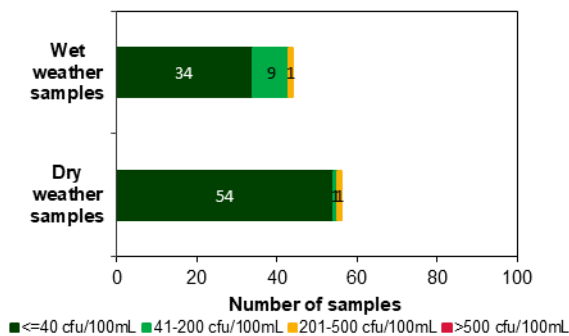
Sanitary inspection: Moderate



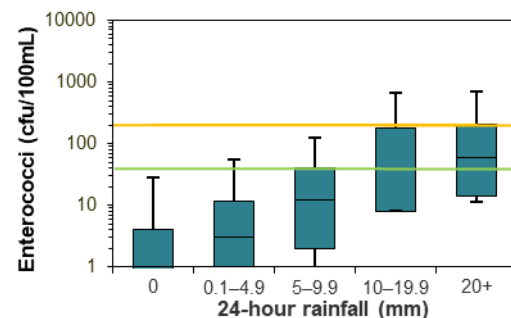
Microbial Assessment Category: B



Dry and wet weather water quality

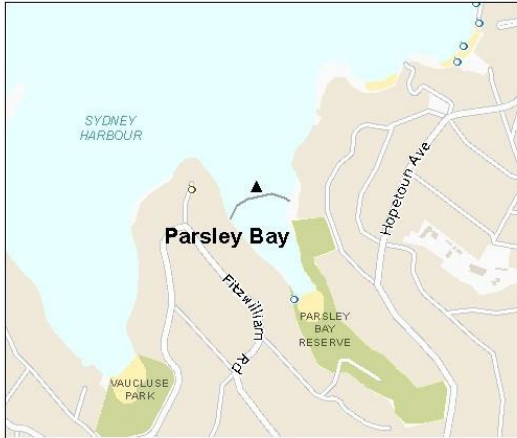


Water quality in response to rainfall



Parsley Bay

Beach grade: G



The swimming site is a netted swimming area backed by a sandy beach and reserve with picnic facilities and a playground.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of faecal contamination including stormwater.

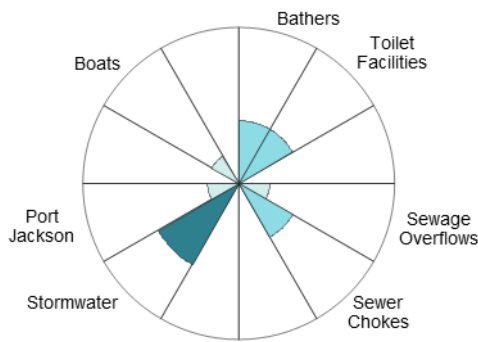
Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit after light rain, and regularly after 5 mm or more.

See 'How to read this report' for key to map.

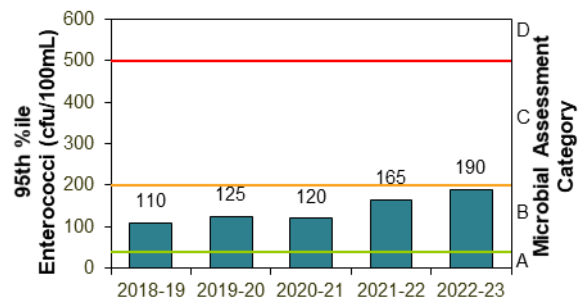
The site has been monitored since 1994.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	93%	100	Stable

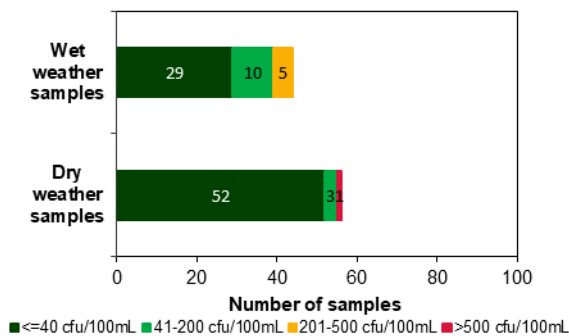
Sanitary inspection: Moderate



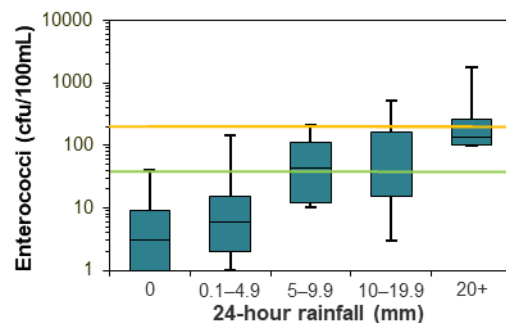
Microbial Assessment Category: B



Dry and wet weather water quality

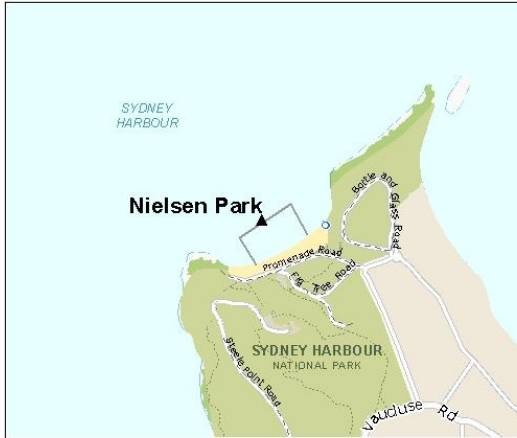


Water quality in response to rainfall



Nielsen Park

Beach grade:



Nielsen Park swimming area is approximately 150 m long and is netted from October to April. It is backed by a sandy beach and Sydney Harbour National Park.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of minor faecal contamination.

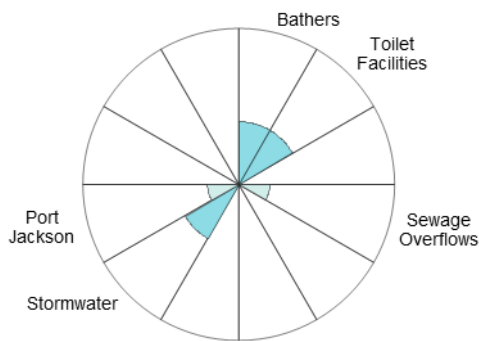
Enterococci levels increased slightly with increasing rainfall, occasionally exceeding the safe swimming limit after rainfall.

See 'How to read this report' for key to map.

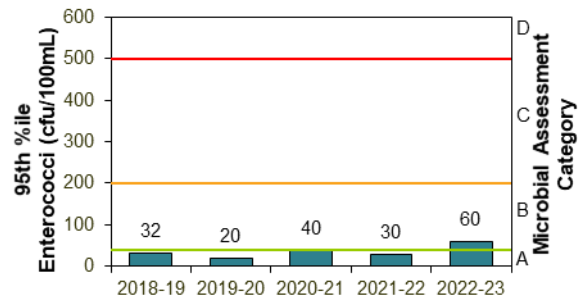
The site has been monitored since 1994.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	98%	100	Declined

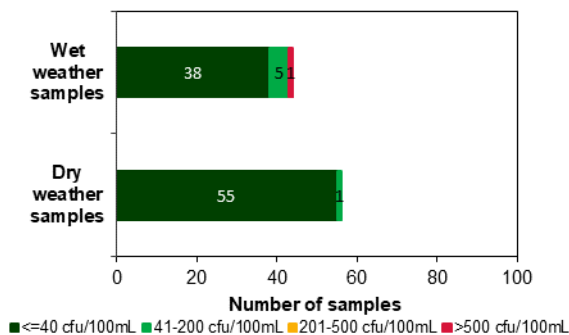
Sanitary inspection: Low



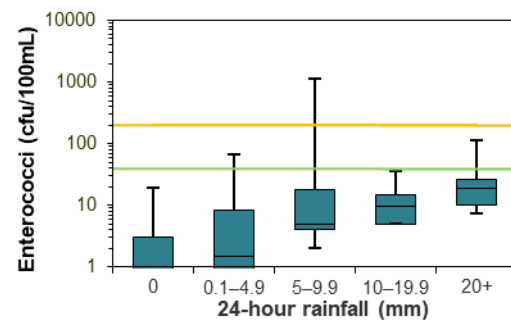
Microbial Assessment Category: B



Dry and wet weather water quality

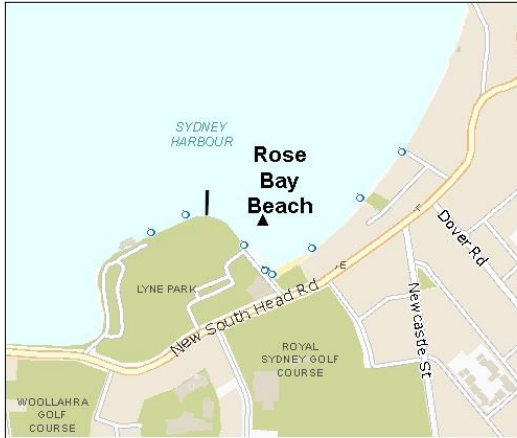


Water quality in response to rainfall



Rose Bay Beach

Beach grade:



Rose Bay Beach is approximately 500 m long and the swimming area is not netted.

The Beach Suitability Grade of Poor indicates microbial water quality is susceptible to faecal pollution, particularly after rainfall and occasionally during dry weather conditions, with several potential sources of faecal contamination including stormwater and sewer chokes.

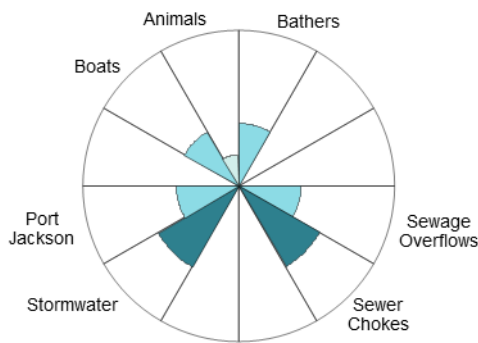
Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit after little or no rain, and often after 5 mm or more.

See 'How to read this report' for key to map.

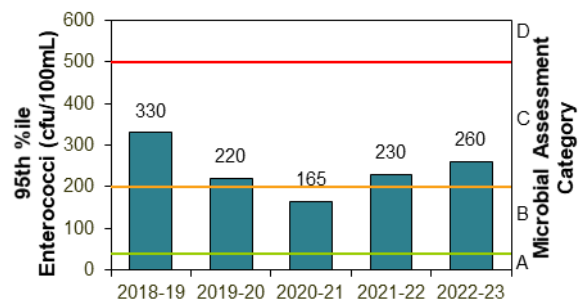
The site has been monitored since 1994.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	75%	100	Stable

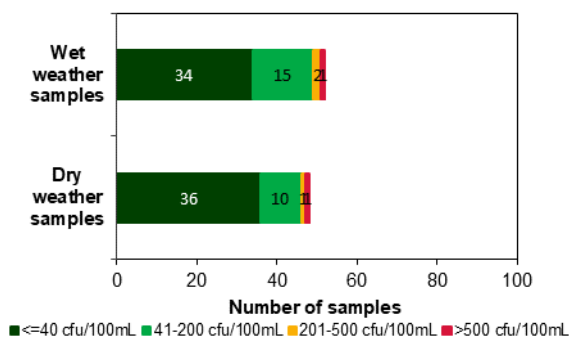
Sanitary inspection: Moderate



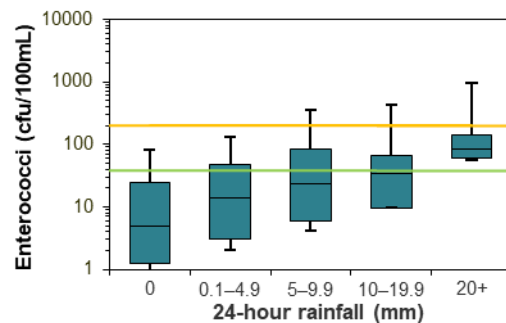
Microbial Assessment Category: C



Dry and wet weather water quality

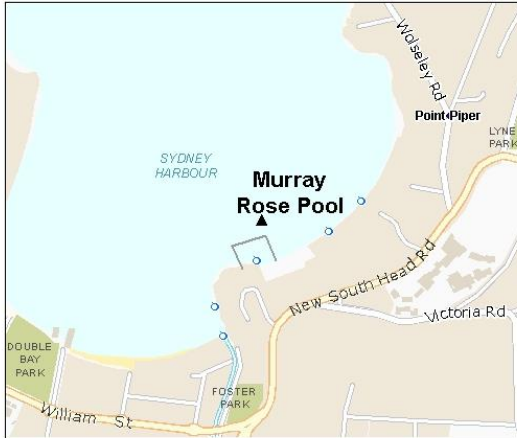


Water quality in response to rainfall



Murray Rose Pool

Beach grade:



Murray Rose Pool (formerly Redleaf Pool) is a netted swimming enclosure in Double Bay, at the end of Seven Shillings Beach.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of faecal contamination including stormwater.

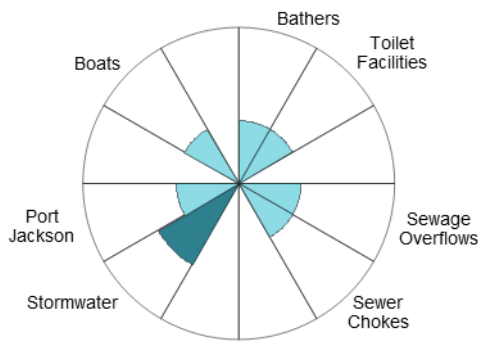
Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit after light rain, and often after 5 mm or more.

The site has been monitored since 1994.

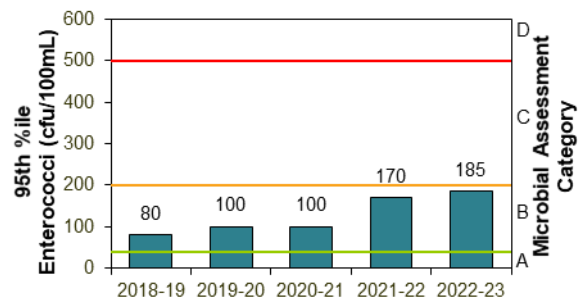
See 'How to read this report' for key to map.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	96%	100	Stable

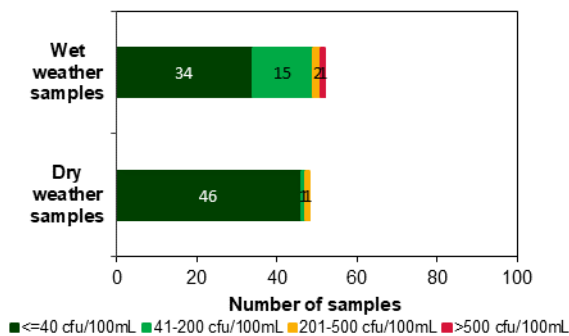
Sanitary inspection: Moderate



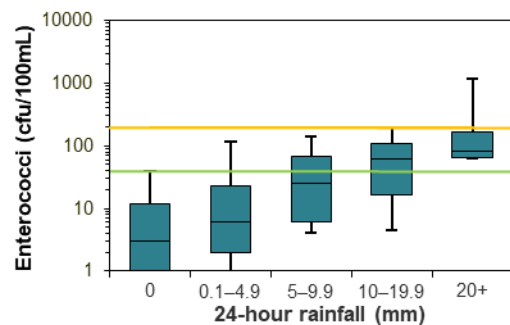
Microbial Assessment Category: B



Dry and wet weather water quality



Water quality in response to rainfall



Dawn Fraser Pool

Beach grade:



See 'How to read this report' for key to map.

Dawn Fraser Pool is an enclosed swimming area located in the Parramatta River and is open between October and April each year.

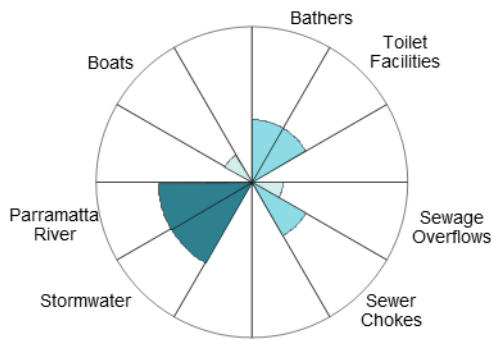
The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of faecal contamination including upstream sources in the Parramatta River.

Enterococci levels increased with increasing rainfall, often exceeding the safe swimming limit after 5 mm or more of rain, and frequently after 20 mm or more.

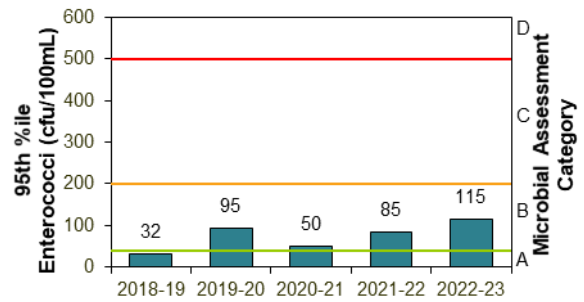
The site has been monitored since 1994.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	93%	100	Stable

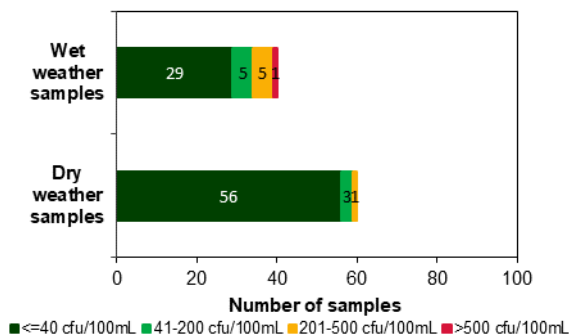
Sanitary inspection: Moderate



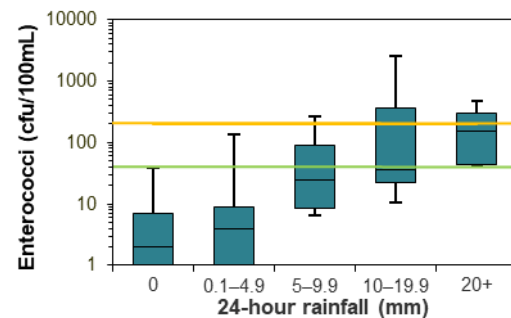
Microbial Assessment Category: B



Dry and wet weather water quality

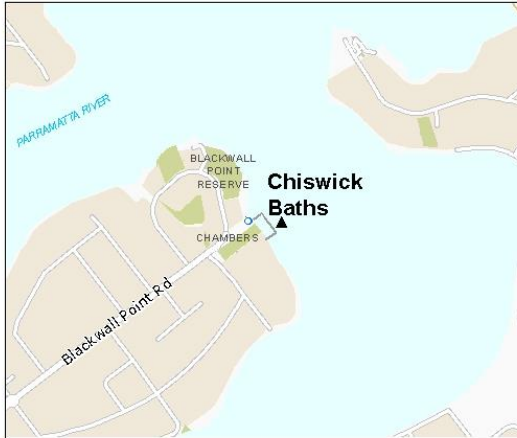


Water quality in response to rainfall



Chiswick Baths

Beach grade: G



Chiswick Baths is a netted swimming enclosure in Five Dock Bay and is backed by a narrow sandy beach and a park.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but can be susceptible to pollution after rain, with several potential sources of faecal contamination including upstream sources in the Parramatta River.

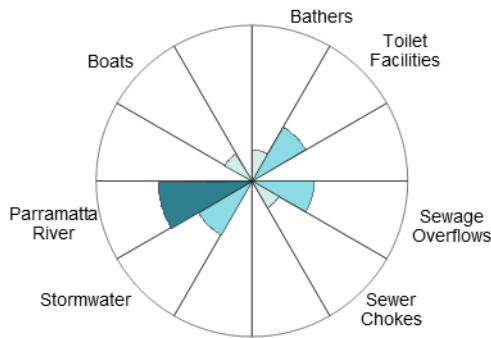
Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit in response to light rain, and regularly after 5 mm or more.

See 'How to read this report' for key to map.

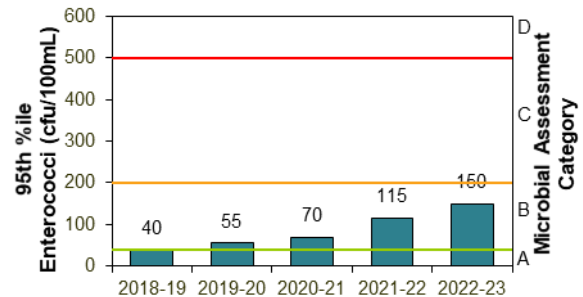
The site has been monitored since 1999.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	90%	100	Stable

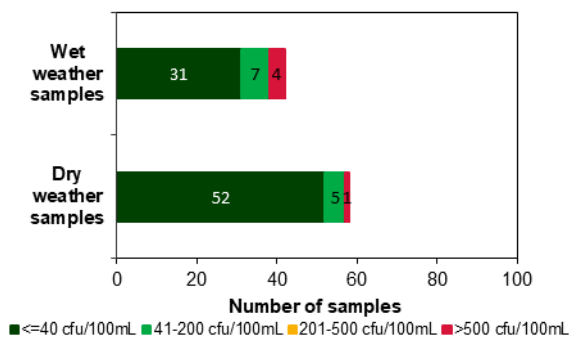
Sanitary inspection: Moderate



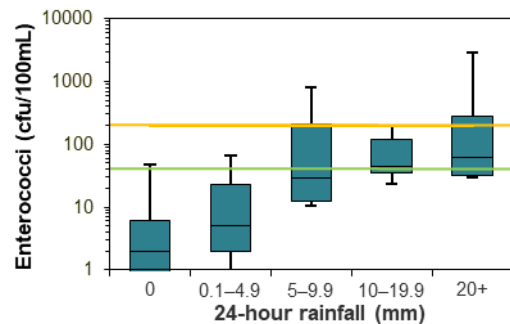
Microbial Assessment Category: B



Dry and wet weather water quality



Water quality in response to rainfall



Cabarita Beach

Beach grade: G



Cabarita Beach is a 120 m long sandy beach and is backed by parklands.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but can be susceptible to pollution after rain, with potential faecal contamination from sewage overflows and upstream sources in the Parramatta River.

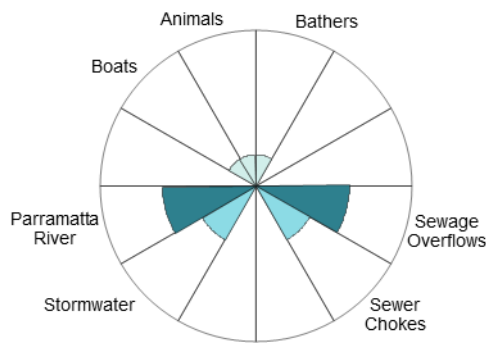
Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit in response to light rain, and regularly after 5 mm or more.

See 'How to read this report' for key to map.

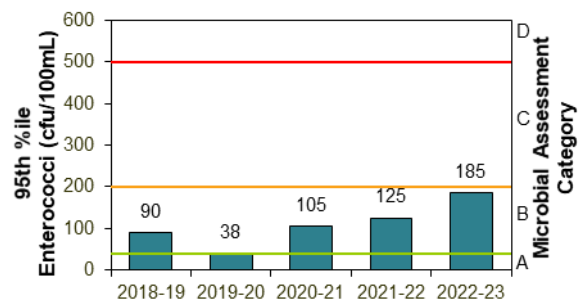
The site has been monitored since 1996.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	90%	100	Stable

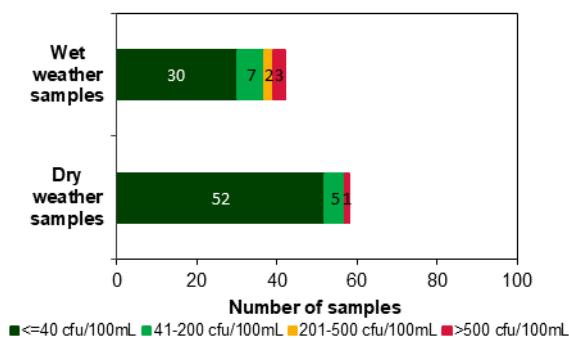
Sanitary inspection: Moderate



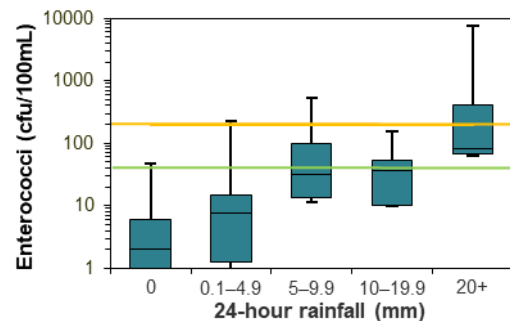
Microbial Assessment Category: B



Dry and wet weather water quality



Water quality in response to rainfall



Woolwich Baths

Beach grade: P



Woolwich Baths is a 20 by 30 m netted swimming area in the lower Lane Cove River with a narrow sandy beach.

The Beach Suitability Grade of Poor indicates microbial water quality is susceptible to faecal pollution, particularly after rainfall and occasionally during dry weather conditions, with potential faecal contamination including stormwater and upstream river sources.

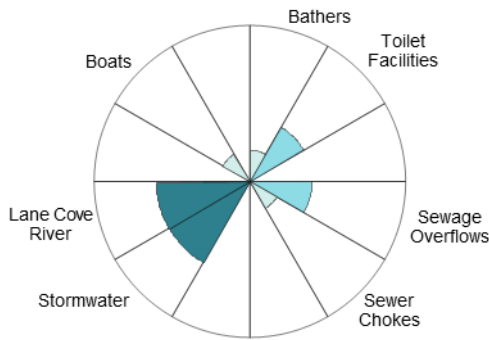
Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit after little or no rain, and often after 5 mm or more.

See 'How to read this report' for key to map.

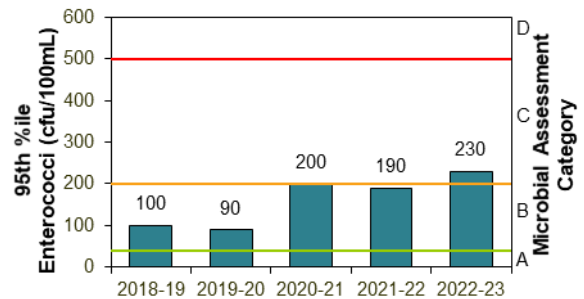
The site has been monitored since 1994.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	83%	100	Declined ↓

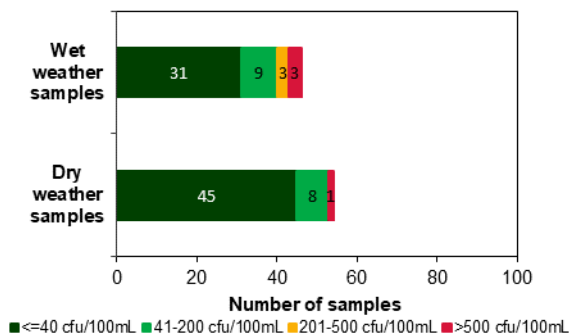
Sanitary inspection: Moderate



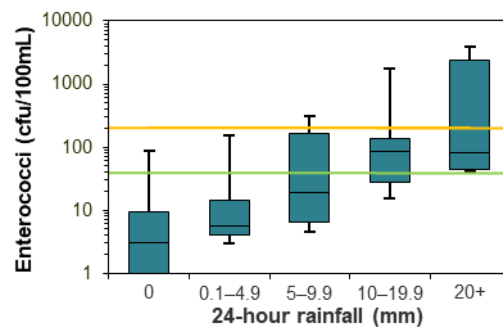
Microbial Assessment Category: C



Dry and wet weather water quality



Water quality in response to rainfall



Tambourine Bay

Beach grade: P



Tambourine Bay is in the lower Lane Cove River. The swimming enclosure has been removed and access to the water is limited.

The Beach Suitability Grade of Poor indicates microbial water quality is susceptible to faecal pollution, particularly after rainfall and occasionally during dry weather conditions, with potential faecal contamination including stormwater and upstream river sources.

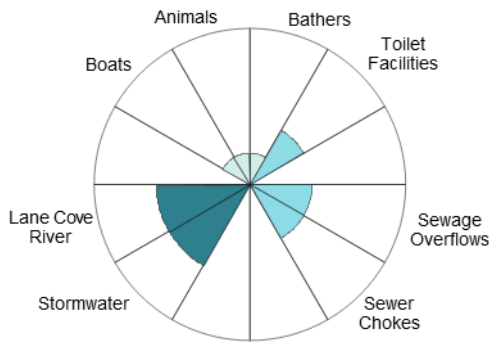
Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit after little or no rain, and regularly after 5 mm or more.

The site has been monitored since 1994.

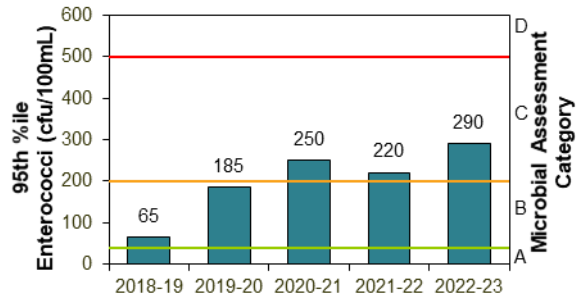
See 'How to read this report' for key to map.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	89%	100	Stable

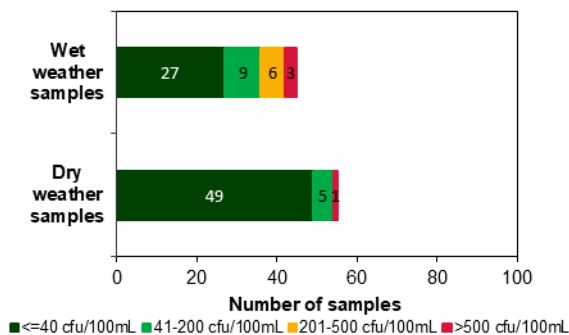
Sanitary inspection: Moderate



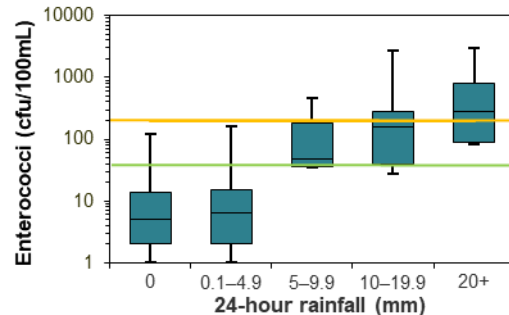
Microbial Assessment Category: C



Dry and wet weather water quality

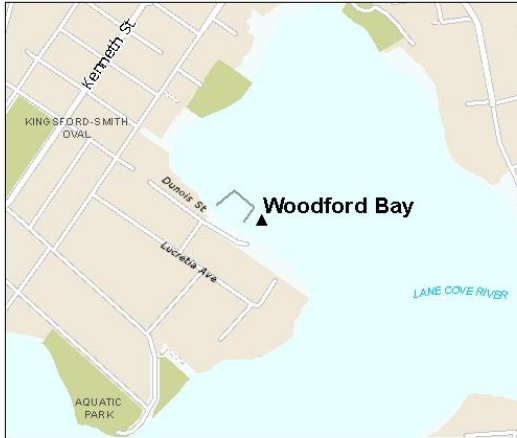


Water quality in response to rainfall



Woodford Bay

Beach grade: G



This site is a 20 by 25 m swimming enclosure on the western side of Woodford Bay in the lower Lane Cove River.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of faecal contamination including discharge from upstream river sources.

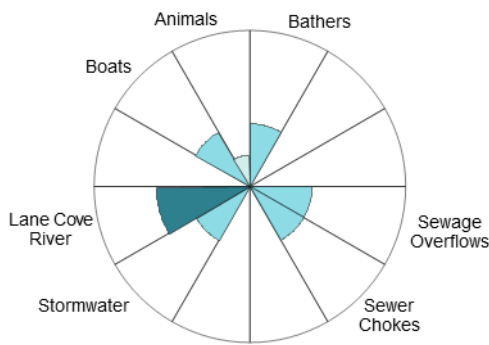
Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit after little or no rain, and regularly after 10 mm or more.

The site has been monitored since 1994.

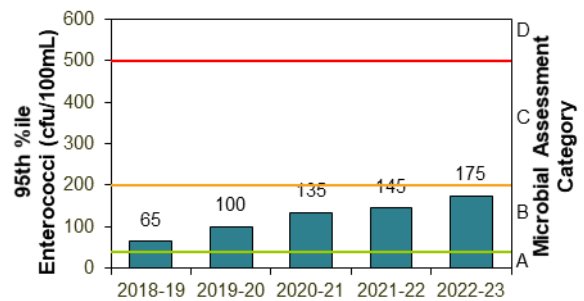
See 'How to read this report' for key to map.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	93%	100	Stable

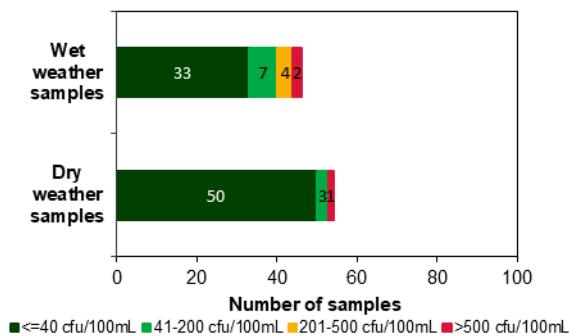
Sanitary inspection: Moderate



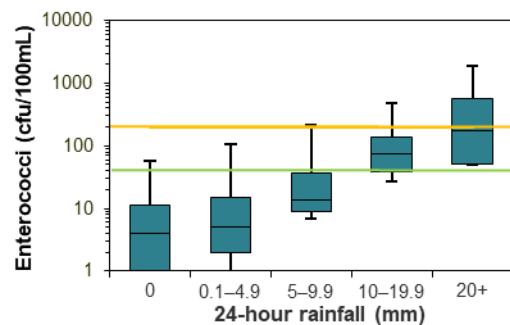
Microbial Assessment Category: B



Dry and wet weather water quality

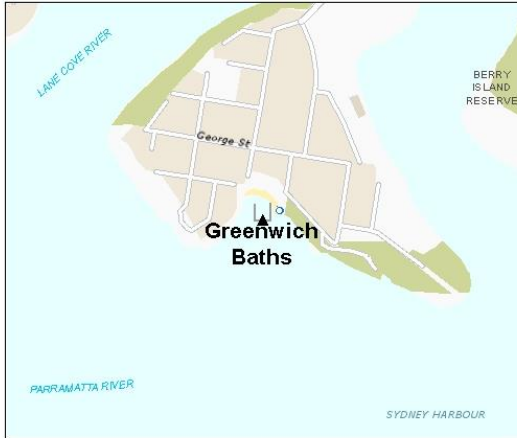


Water quality in response to rainfall



Greenwich Baths

Beach grade: G



Greenwich Baths is a 40 m long netted swimming area backed by a sandy beach and is open during the swimming season.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of faecal contamination including discharge from upstream river sources.

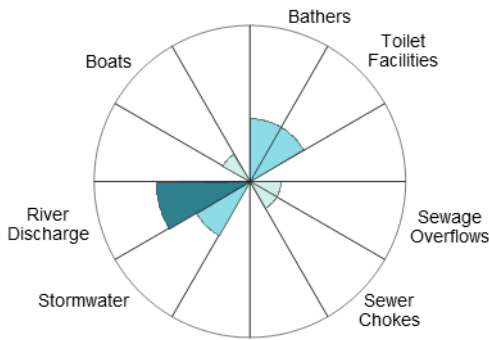
Enterococci levels generally increased with increasing rainfall, occasionally exceeding the safe swimming limit after little or no rain, and regularly after 20 mm or more.

See 'How to read this report' for key to map.

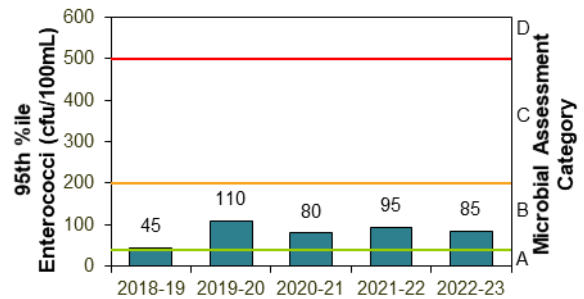
The site has been monitored since 1994.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	89%	100	Stable

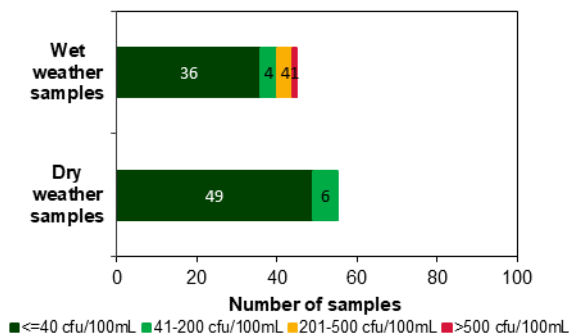
Sanitary inspection: Moderate



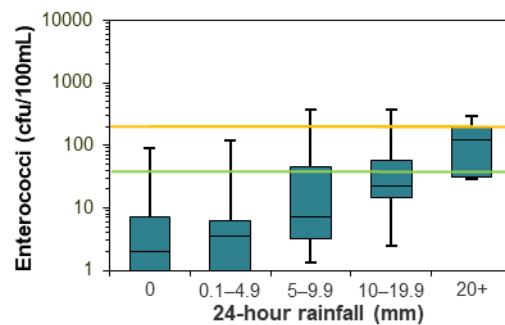
Microbial Assessment Category: B



Dry and wet weather water quality

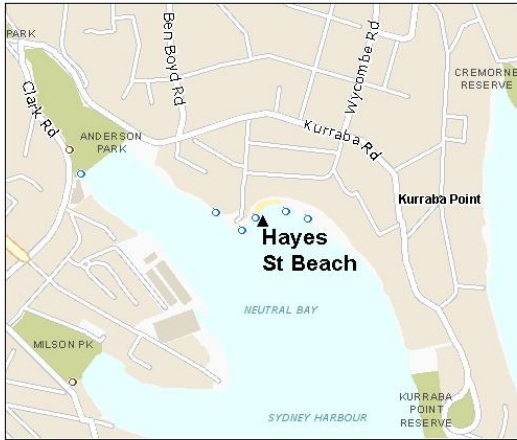


Water quality in response to rainfall



Hayes Street Beach

Beach grade: G



Hayes Street Beach is approximately 50 m long and is located adjacent to the Hayes Street Ferry Wharf in Neutral Bay and is not netted.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of faecal contamination including stormwater.

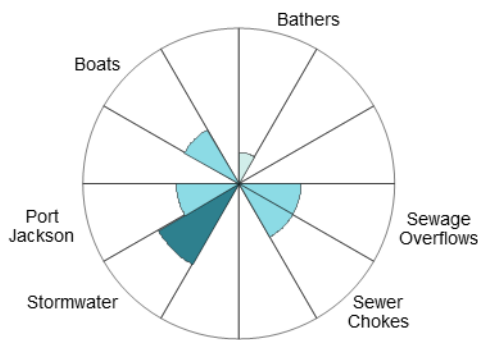
Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit after little or no rain, and often after 5 mm or more.

See 'How to read this report' for key to map.

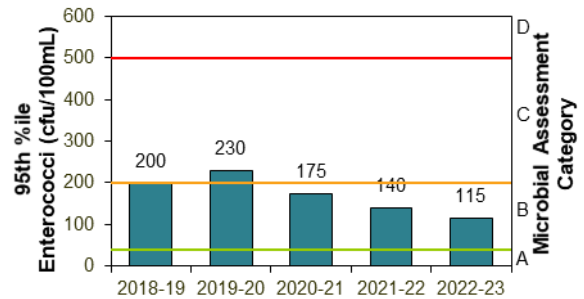
The site has been monitored since 1994.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	90%	100	Stable

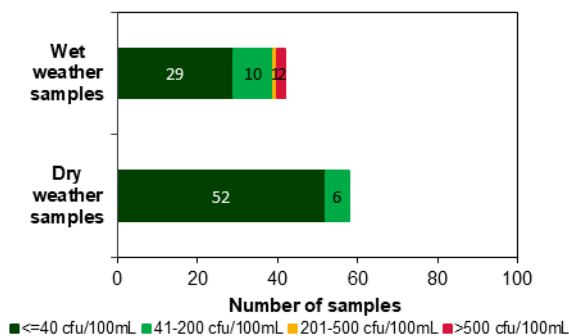
Sanitary inspection: Moderate



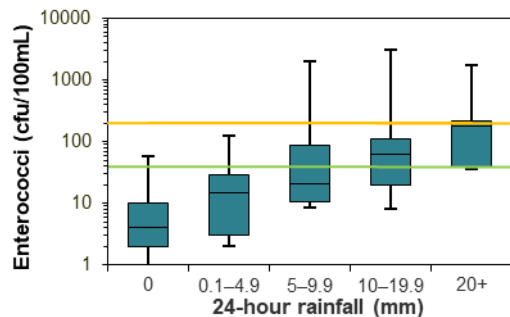
Microbial Assessment Category: B



Dry and wet weather water quality



Water quality in response to rainfall



Clifton Gardens

Beach grade:



Clifton Gardens is a large netted swimming area at the western end of a 250 m long beach in Chowder Bay and is backed by Sydney Harbour National Park and a park.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of minor faecal contamination.

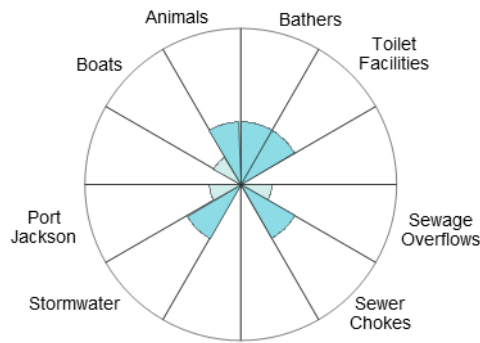
Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit after light rain, and regularly after 10 mm or more.

See 'How to read this report' for key to map.

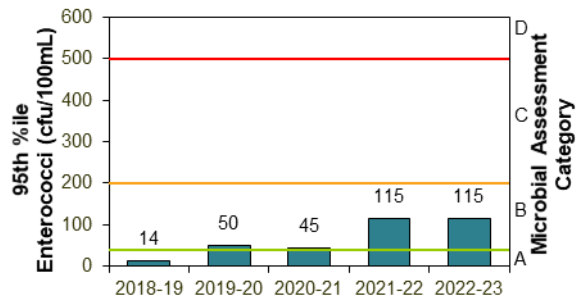
The site has been monitored since 1994.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	92%	100	Stable

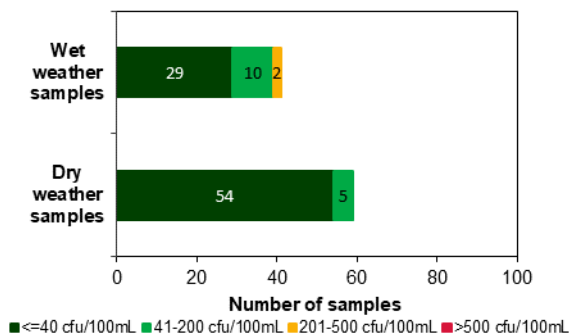
Sanitary inspection: Moderate



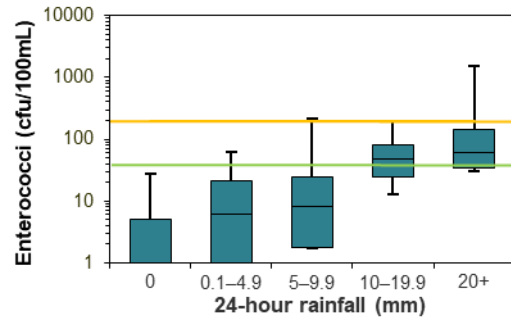
Microbial Assessment Category: B



Dry and wet weather water quality

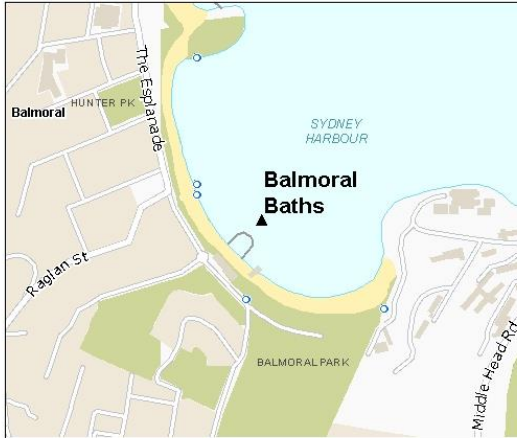


Water quality in response to rainfall



Balmoral Baths

Beach grade: G



Balmoral Baths is a netted swimming area at the eastern end of Balmoral Beach and is backed by a park.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of faecal contamination including stormwater.

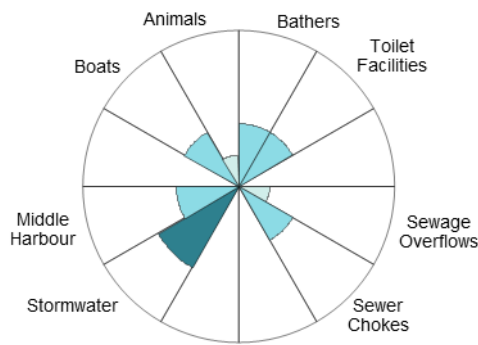
Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit after light rain, and often after 10 mm or more.

See 'How to read this report' for key to map.

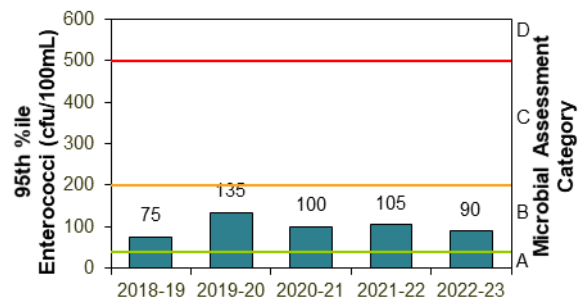
The site has been monitored since 1994.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	97%	100	Stable

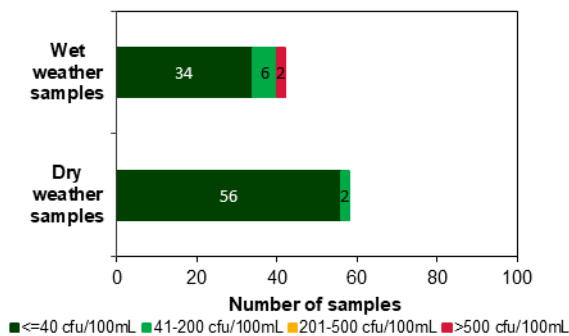
Sanitary inspection: Moderate



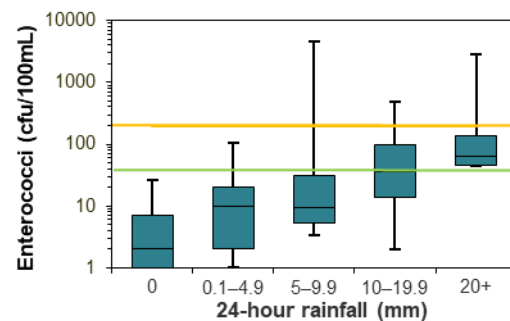
Microbial Assessment Category: B



Dry and wet weather water quality

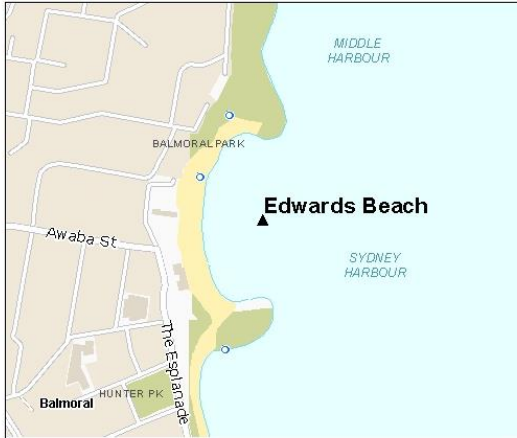


Water quality in response to rainfall



Edwards Beach

Beach grade: G



Edwards Beach is a popular swimming area backed by a walking track, park and café facilities.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of minor faecal contamination.

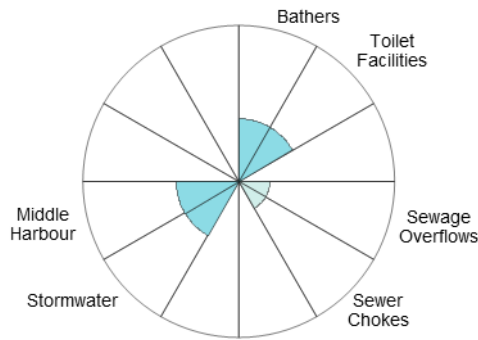
Enterococci levels increased with increasing rainfall, often exceeding the safe swimming limit after 10 mm or more of rain.

The site has been monitored since 1994.

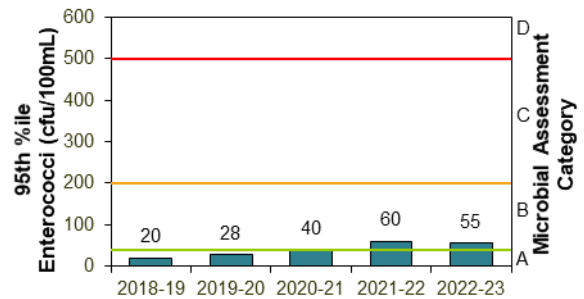
See 'How to read this report' for key to map.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	98%	100	Stable

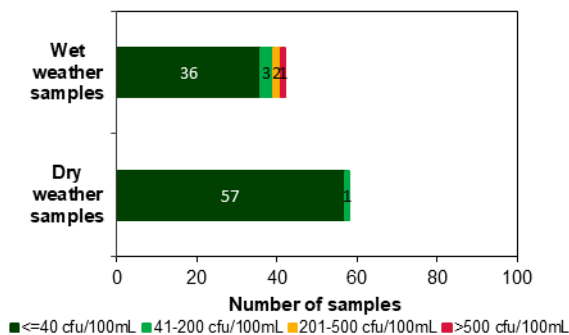
Sanitary inspection: Moderate



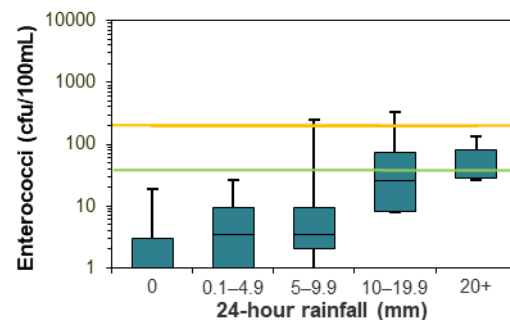
Microbial Assessment Category: B



Dry and wet weather water quality

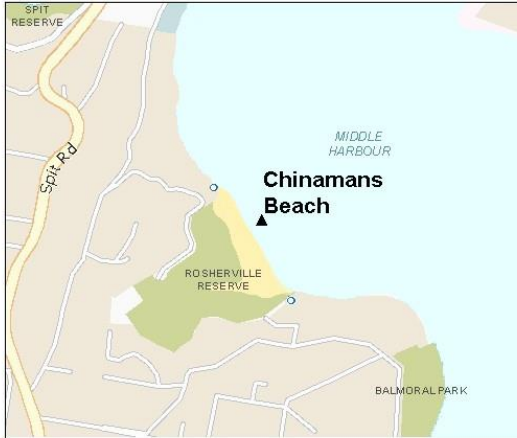


Water quality in response to rainfall



Chinamans Beach

Beach grade: G



Chinamans Beach is approximately 250 m long and is a popular swimming area in Middle Harbour. It is backed by Rosherville Reserve.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of faecal contamination including upstream sources in Middle Harbour.

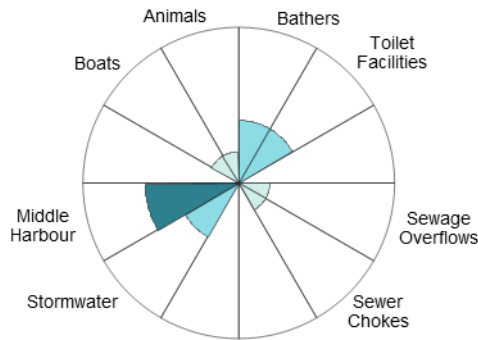
Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit after light rain, and often after 10 mm or more.

See 'How to read this report' for key to map.

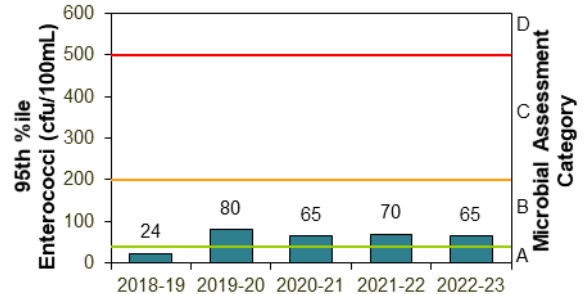
The site has been monitored since 1998.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	95%	100	Stable

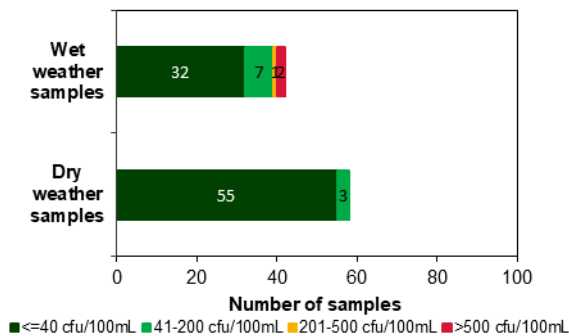
Sanitary inspection: Moderate



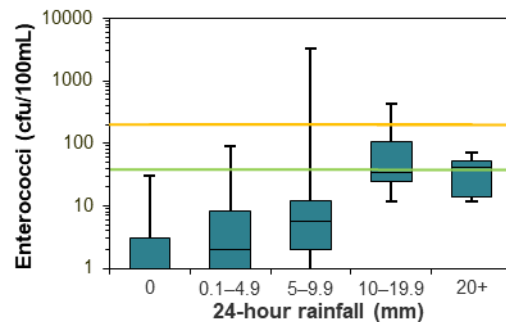
Microbial Assessment Category: B



Dry and wet weather water quality

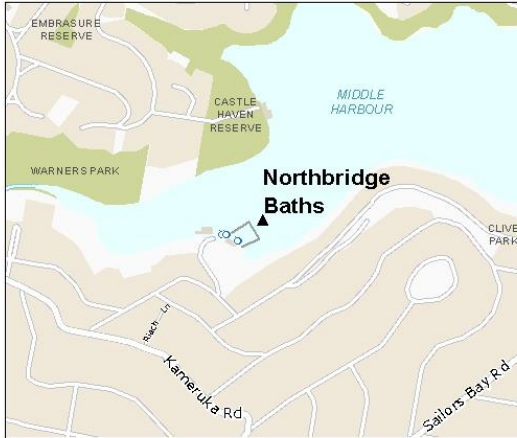


Water quality in response to rainfall



Northbridge Baths

Beach grade: P



See 'How to read this report' for key to map.

Northbridge Baths is a 30 by 65 m enclosed swimming area in Sailors Bay, Middle Harbour and is open year-round.

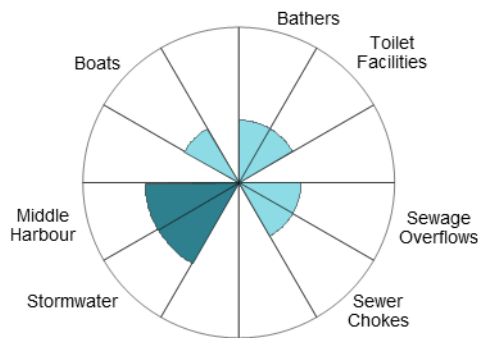
The Beach Suitability Grade of Poor indicates microbial water quality is susceptible to faecal pollution, particularly after rainfall and occasionally during dry weather conditions, with several potential sources of faecal contamination including stormwater and upstream sources in Middle Harbour.

Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit in response to no rain, and regularly after 10 mm or more.

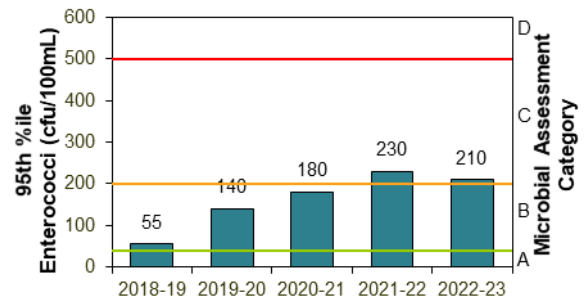
The site has been monitored since 1994.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	93%	100	Stable

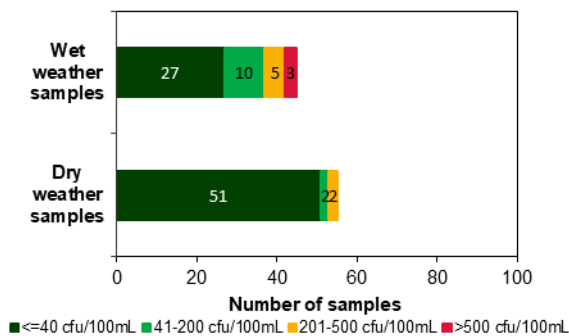
Sanitary inspection: High



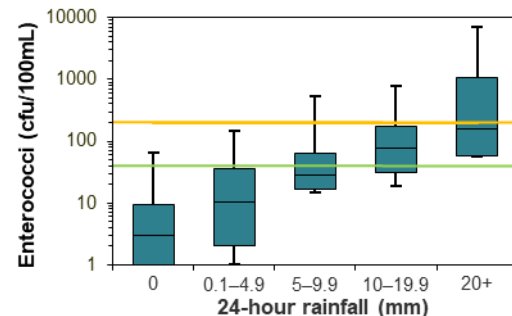
Microbial Assessment Category: C



Dry and wet weather water quality

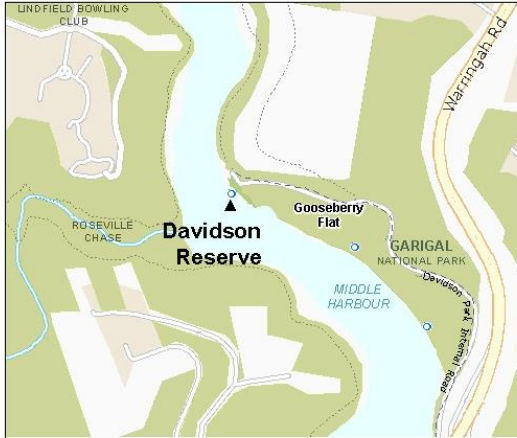


Water quality in response to rainfall



Davidson Reserve

Beach grade: P



See 'How to read this report' for key to map.

Davidson Reserve is a 25 m long swimming area situated in Middle Harbour and is backed by Garigal National Park and picnic area.

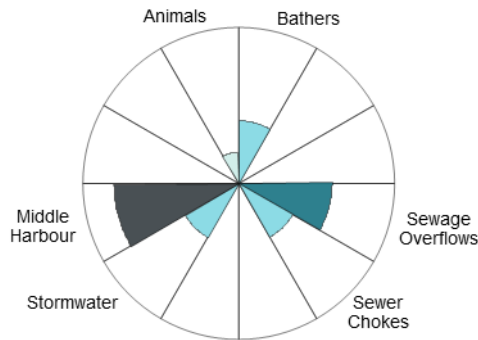
The Beach Suitability Grade of Poor indicates microbial water quality is susceptible to faecal pollution, particularly after rainfall and occasionally during dry weather conditions, with several potential sources of faecal contamination including sewage overflows and upstream sources in Middle Harbour.

Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit after little or no rain and regularly after 5 mm or more.

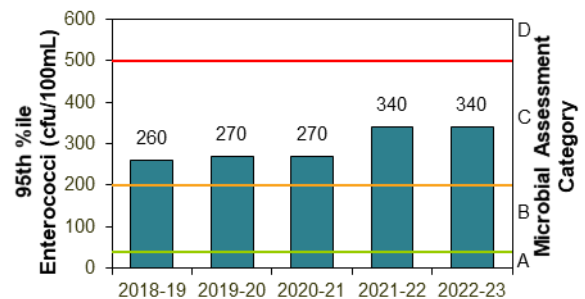
The site has been monitored since 1994.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	93%	100	Stable

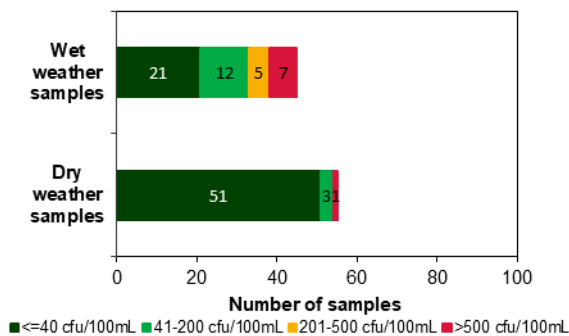
Sanitary inspection: High



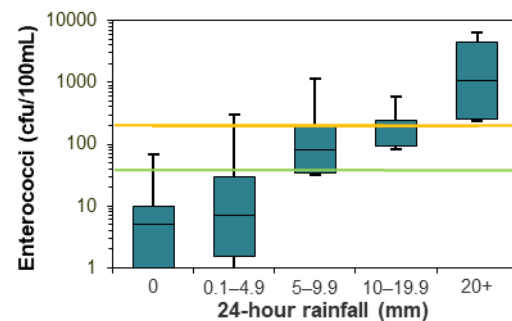
Microbial Assessment Category: C



Dry and wet weather water quality



Water quality in response to rainfall



Gurney Crescent Baths

Beach grade: P



Gurney Crescent Baths is a 20 m square netted swimming area located at Pickering Point in Middle Harbour.

The Beach Suitability Grade of Poor indicates microbial water quality is susceptible to faecal pollution, particularly after rainfall, with several potential sources of faecal contamination including upstream sources in Middle Harbour and stormwater.

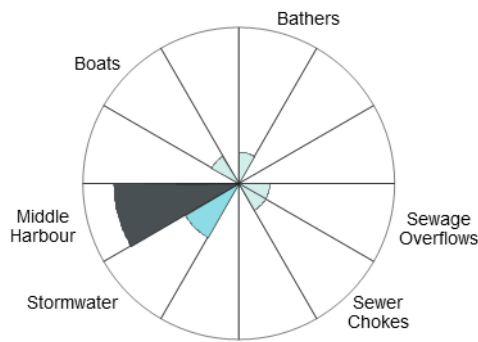
Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit after little or no rain, and regularly after 5 mm or more.

The site has been monitored since 1996.

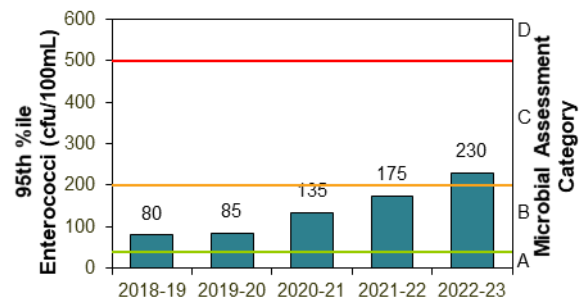
See 'How to read this report' for key to map.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	93%	100	Declined

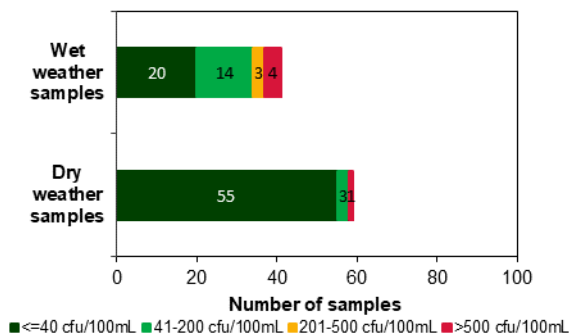
Sanitary inspection: High



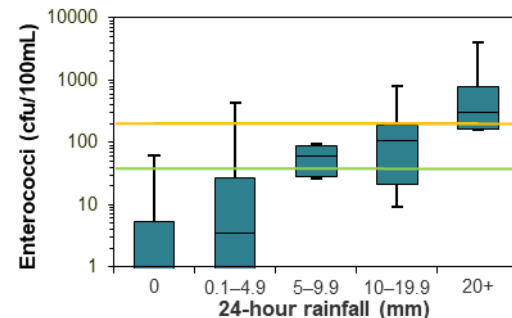
Microbial Assessment Category: C



Dry and wet weather water quality

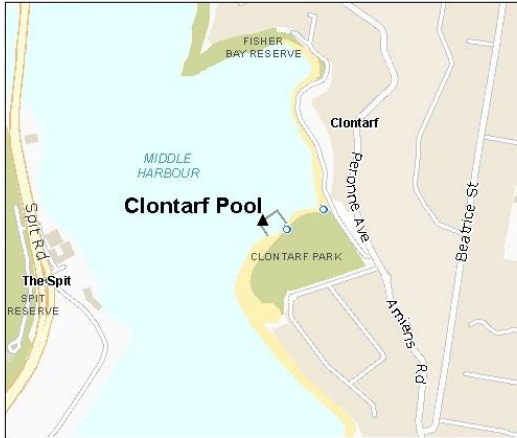


Water quality in response to rainfall



Clontarf Pool

Beach grade: G



See 'How to read this report' for key to map.

Clontarf Pool is a small netted swimming area in Middle Harbour backed by a narrow sandy beach and a park.

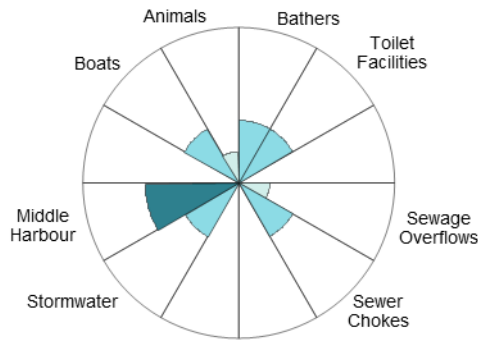
The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of faecal contamination including upstream sources in Middle Harbour and stormwater.

Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit after little or no rain, and often after 10 mm or more.

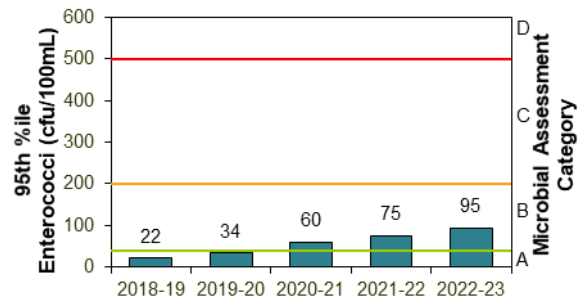
The site has been monitored since 1994.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	92%	100	Stable

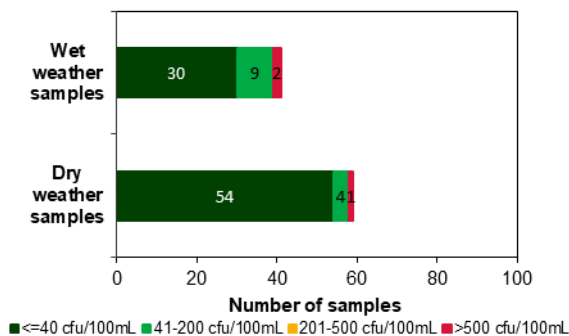
Sanitary inspection: Moderate



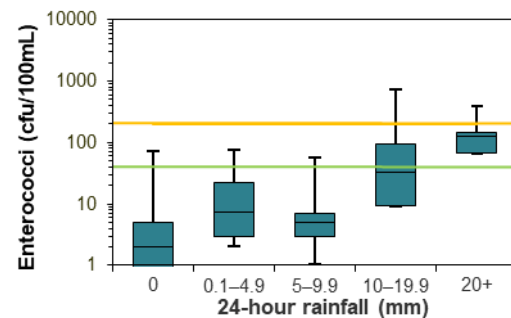
Microbial Assessment Category: B



Dry and wet weather water quality

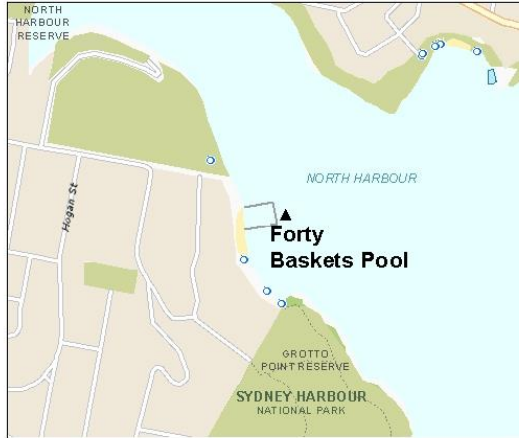


Water quality in response to rainfall



Forty Baskets Pool

Beach grade: G



Forty Baskets Pool is a 20 by 40 m netted swimming area at the northern end of Forty Baskets Beach in North Harbour.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of minor faecal contamination.

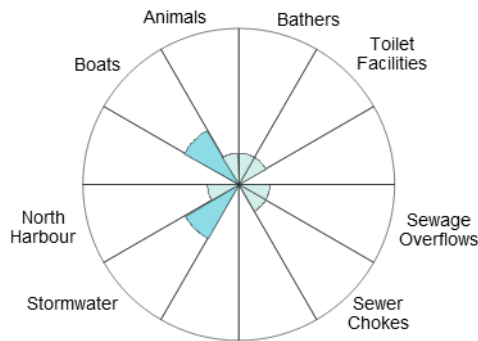
Enterococci levels generally increased with increasing rainfall, occasionally exceeding the safe swimming limit in response to 5 mm or more of rain, and regularly after 20 mm or more.

See 'How to read this report' for key to map.

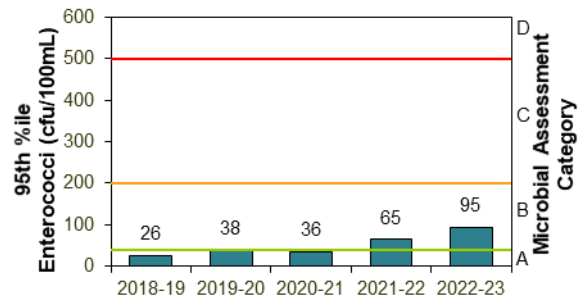
The site has been monitored since 1994.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	96%	100	Stable

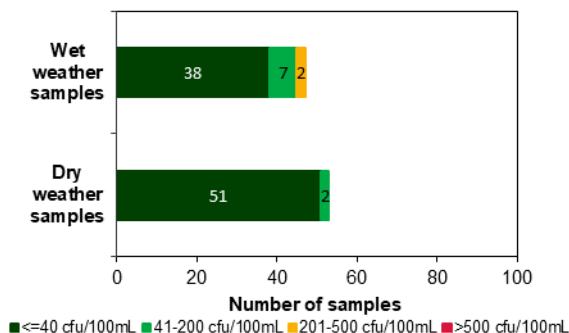
Sanitary inspection: Moderate



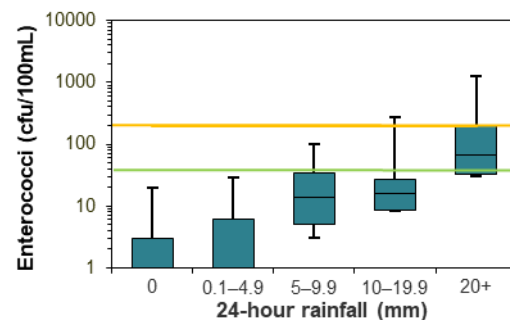
Microbial Assessment Category: B



Dry and wet weather water quality



Water quality in response to rainfall



Fairlight Beach

Beach grade: G



Fairlight Beach is a narrow beach located in North Harbour. A 25 m pool filled with water from the harbour is adjacent to the beach.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of minor faecal contamination.

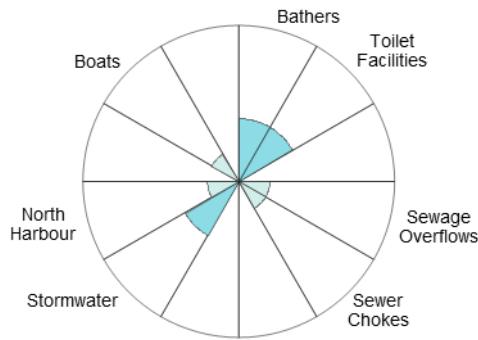
Enterococci levels generally increased with increasing rainfall, occasionally exceeding the safe swimming limit after 5 mm or more of rain, and regularly after 20 mm or more.

See 'How to read this report' for key to map.

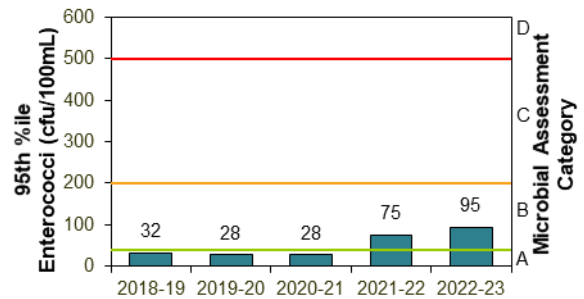
The site has been monitored since 1996.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	94%	100	Stable

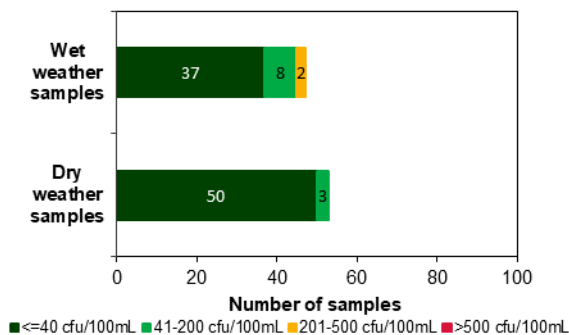
Sanitary inspection: Moderate



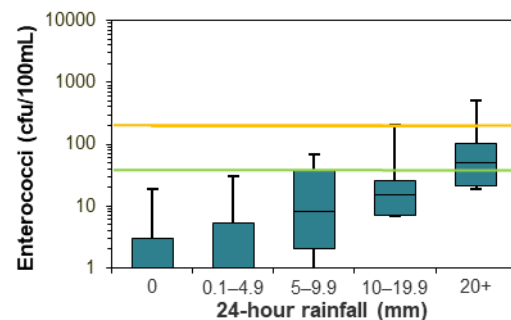
Microbial Assessment Category: B



Dry and wet weather water quality



Water quality in response to rainfall



Manly Cove

Beach grade: G



Manly Cove is a netted swimming enclosure at the centre of the 250 m long beach, adjacent to the Manly Ferry Terminal.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of minor faecal contamination.

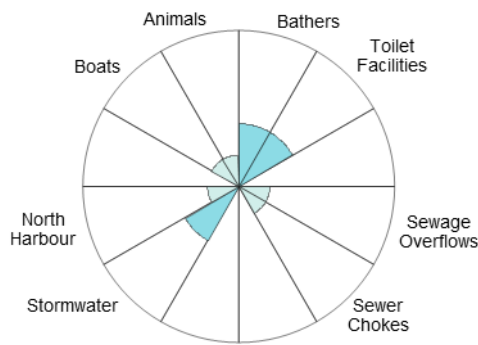
Enterococci levels generally increased with increasing rainfall, occasionally exceeding the safe swimming limit after little or no rain, and frequently after 20 mm or more.

See 'How to read this report' for key to map.

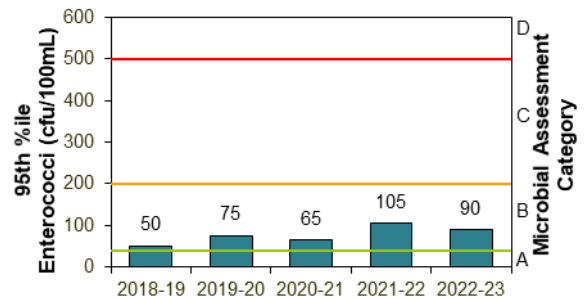
The site has been monitored since 1994.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	91%	100	Stable

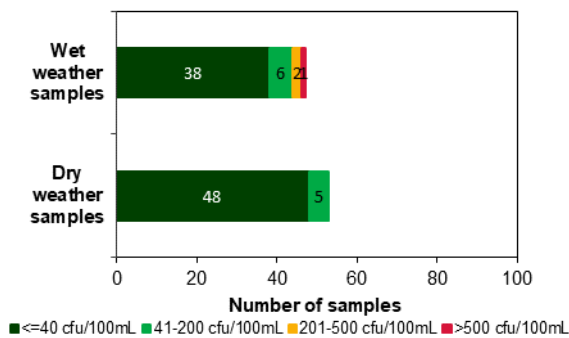
Sanitary inspection: Moderate



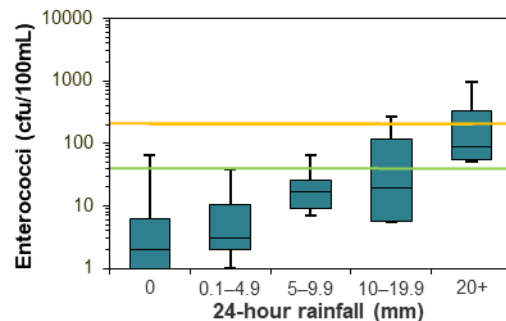
Microbial Assessment Category: B



Dry and wet weather water quality



Water quality in response to rainfall



Little Manly Cove

Beach grade:



The 30 m square swimming enclosure is at the eastern end of the sandy beach in Little Manly Cove.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of minor faecal contamination.

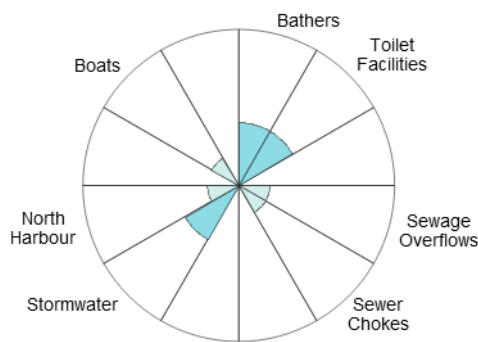
Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit after 5 mm or more of rain, and regularly after 20 mm or more.

See 'How to read this report' for key to map.

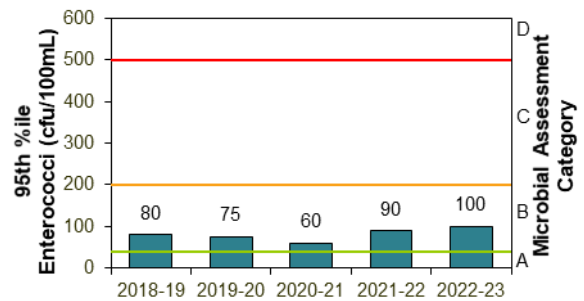
The site has been monitored since 1994.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	92%	100	Stable

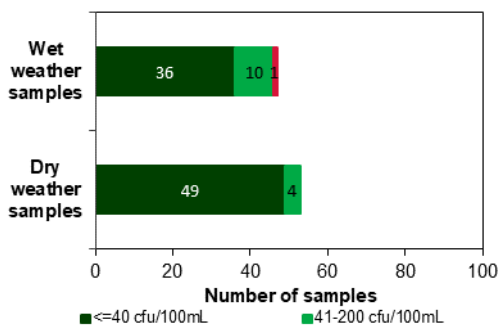
Sanitary inspection: Moderate



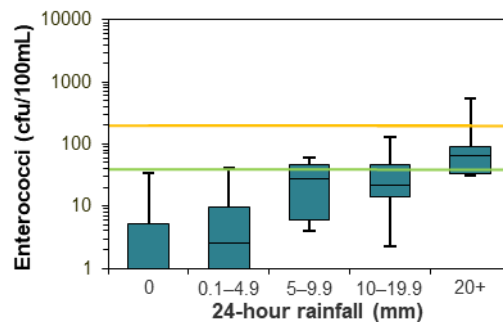
Microbial Assessment Category: B



Dry and wet weather water quality



Water quality in response to rainfall



Southern Sydney (Sutherland beaches, lower Georges River, Botany Bay & Port Hacking)



Overall results

Sixteen of the 28 swimming sites were graded as Very Good or Good in 2022–2023. This is a decline in performance from the previous year.

Percentage of sites graded as Very Good or Good

	2020–2021	2021–2022	2022–2023	Trend
Ocean beaches (8 sites)	100%	100%	100%	
Estuarine sites (20 sites)	85%	55%	40%	

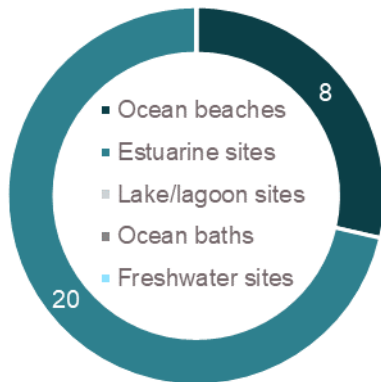
Beachwatch samples the ocean beaches every sixth day throughout the year, and estuarine beaches every sixth day between October and April, and monthly from May to September.

See the section on **How to read this report** on page 132 for an explanation of the graphs, tables and Beach Suitability Grades.

Best beaches

Greenhills Beach, Wanda Beach, Elouera Beach, North Cronulla Beach, Shelly Beach and Oak Park.

These sites had excellent water quality and were suitable for swimming almost all of the time.



Site types in Southern Sydney region

Swimming sites monitored in the Southern Sydney region include ocean beaches and estuarine areas in Botany Bay, lower Georges River and Port Hacking, with each site type having a different response to rainfall-related impacts.

Estuarine swimming sites did not perform as well as ocean beaches due to lower levels of flushing, which increases the time needed to disperse and dilute pollution inputs, taking longer to recover from stormwater events.

As a general precaution swimming should be avoided during and for at least one day after heavy rain at ocean beaches, and for up to 3 days in estuarine areas, or if there are signs of stormwater pollution such as discoloured water or floating debris.

Ocean beaches

All 8 Southern Sydney ocean beaches were graded as Very Good or Good in 2022–2023.



Beach Suitability Grades for Southern Sydney ocean beaches

Greenhills Beach, Wanda Beach, Elouera Beach, North Cronulla Beach, Shelly Beach and Oak Park were graded as Very Good. Water quality at these sites has been consistently excellent for many years and is suitable for swimming almost all of the time.

Boat Harbour and South Cronulla Beach were graded Good as in the previous year. Water quality at these sites is mostly suitable for swimming during dry weather conditions, but can be susceptible to pollution, with elevated enterococci levels occasionally recorded during dry weather or after light rainfall.

It is recommended that swimming be avoided at ocean beaches during and for up to one day following rainfall, or if there are signs of pollution such as discoloured water, flowing drains or floating debris.

Estuarine beaches



Beach Suitability Grades for Southern Sydney estuarine beaches

Eight of the 20 estuarine sites were graded as Good in 2022–2023: Silver Beach, Sandringham Baths, Ramsgate Baths, Monterey Baths, Congwong Bay, Jibbon Beach, Horderns Beach and Lilli Pilli Baths. Water quality at these sites was suitable for swimming most of the time, with elevated levels of enterococci mostly recorded following rainfall.

Ten estuarine swimming sites were graded as Poor in 2022–2023: Jew Fish Bay Baths, Oatley Bay Baths, Como Baths and Carss Point Baths in the lower Georges River, Brighton-Le-Sands Baths, Dolls Point Baths, Kyeemagh Baths, Frenchmans Bay and Yarra Bay in Botany Bay, and Gunnamatta Bay Baths in Port Hacking. Microbial water quality at these sites was mostly suitable for swimming during dry weather conditions, with between 63% and 92% of dry weather samples within the safe swimming limit. However, bacterial levels increased significantly with increasing rainfall.

Brighton-Le-Sands Baths, Como Baths and Gunnamatta Bay Baths were downgraded from Good in the previous year. The decline in microbial water quality at these sites reflects a higher proportion of samples collected during wet weather at these sites compared to the 2021–2022 assessment. These sites can be susceptible to wet weather impacts and have several sources of faecal contamination including upstream sources, stormwater and sewage overflows and chokes.

Foreshores Beach and Gymea Bay Baths were graded as Very Poor. Water quality at Foreshores Beach is significantly impacted by faecal contamination during and following rainfall, and occasionally during dry weather. The site is very susceptible to faecal contamination from the sewage overflows that periodically discharge into Mill Stream. Sydney Water has placed permanent signage to advise the public to avoid swimming 3 days after rainfall due to the risk from sewage overflows, which may impact water quality at this site.

Gymea Bay Baths was downgraded to Very Poor from Poor in the previous year.

Swimming should be avoided during and for up to 3 days following light rainfall at all estuarine swimming sites, or if there are signs of pollution such as discoloured water, odours or floating debris.



Sampling sites and Beach Suitability Grades at Sydney's Southern beaches



Sampling sites and Beach Suitability Grades in Botany Bay and lower Georges River



Sampling sites and Beach Suitability Grades in Port Hacking

Boat Harbour

Beach grade: G



Boat Harbour is a 150 m long unpatrolled private beach at the northern end of Bate Bay. It is the beach closest to the Cronulla WWTP outfall at Potter Point.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of faecal contamination including stormwater and onsite sewer systems behind the beach.

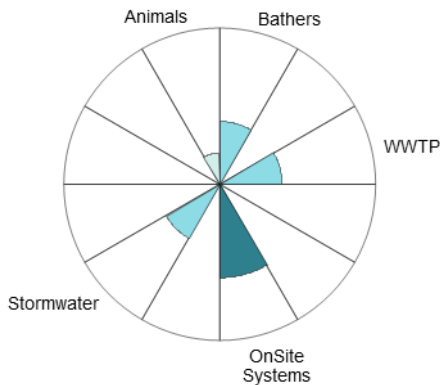
Enterococci levels generally increased with increasing rainfall, occasionally exceeding the safe swimming limit after little or no rain, and often after 5 mm or more.

The site has been monitored since 1989.

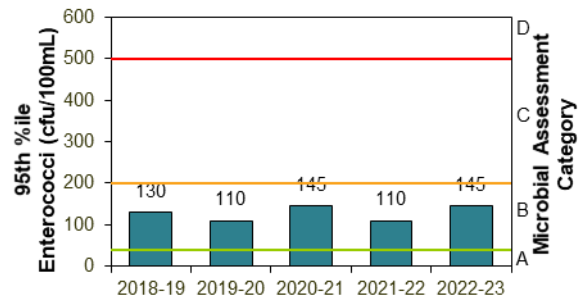
See 'How to read this report' for key to map.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Ocean beach	Jul 2021 to Apr 2023	85%	100	Stable

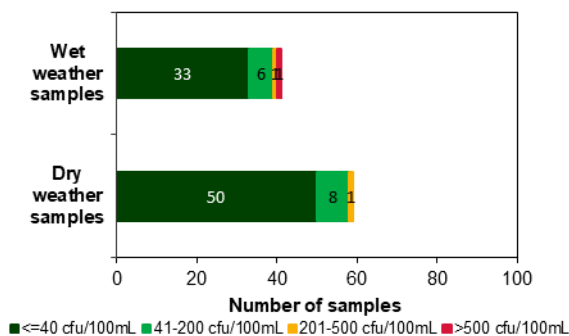
Sanitary inspection: Moderate



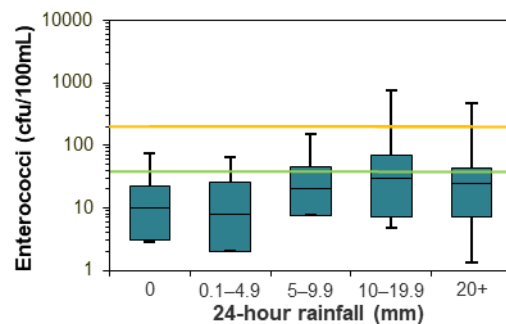
Microbial Assessment Category: B



Dry and wet weather water quality



Water quality in response to rainfall



Greenhills Beach

Beach grade:



Greenhills Beach is 3 km long and situated at the northern end of Bate Bay. The beach is not patrolled.

The Beach Suitability Grade of Very Good indicates microbial water quality is considered suitable for swimming almost all of the time, with few potential sources of faecal contamination.

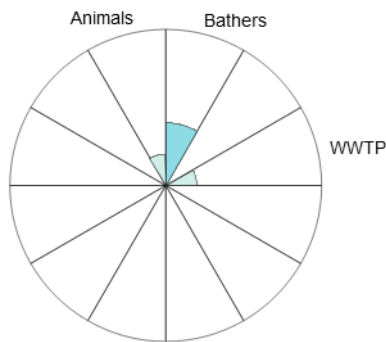
Enterococci levels increased slightly with increasing rainfall, occasionally exceeding the safe swimming limit after 5 mm or more of rain.

See 'How to read this report' for key to map.

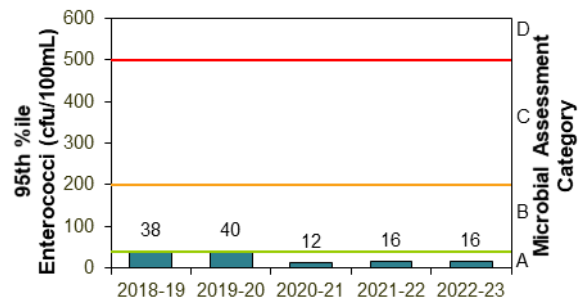
The site has been monitored since 1989.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Ocean beach	Jul 2021 to Apr 2023	93%	100	Stable

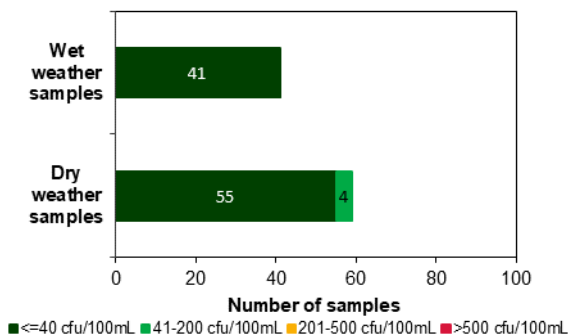
Sanitary inspection: Low



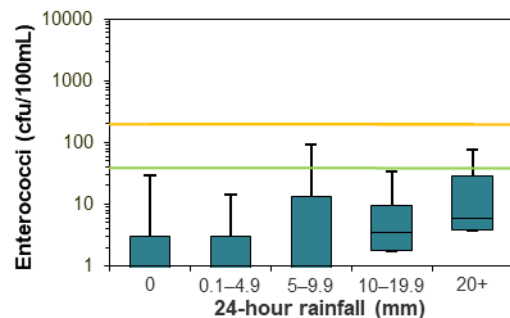
Microbial Assessment Category: A



Dry and wet weather water quality



Water quality in response to rainfall



Wanda Beach

Beach grade:



Wanda, Elouera and North Cronulla beaches form a 1.5 km stretch of beach towards the southern end of Bate Bay. Lifeguards patrol from October to April.

The Beach Suitability Grade of Very Good indicates microbial water quality is considered suitable for swimming almost all of the time, with few potential sources of faecal contamination.

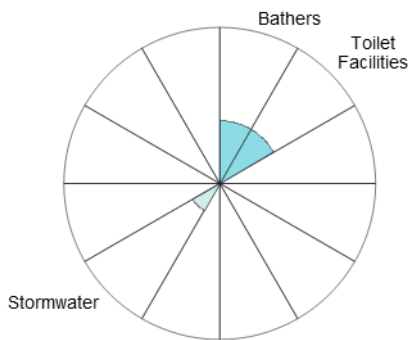
Enterococci levels increased slightly with increasing rainfall, but generally remained below the safe swimming limit across all rainfall categories.

See 'How to read this report' for key to map.

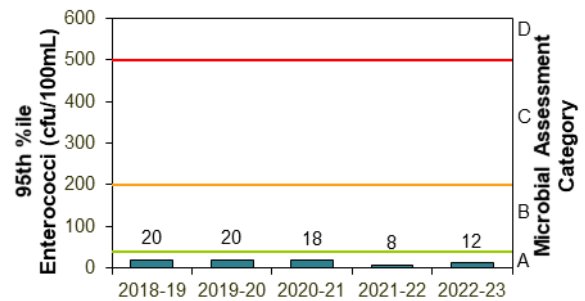
The site has been monitored since 1989.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Ocean beach	Aug 2021 to Apr 2023	96%	100	Stable

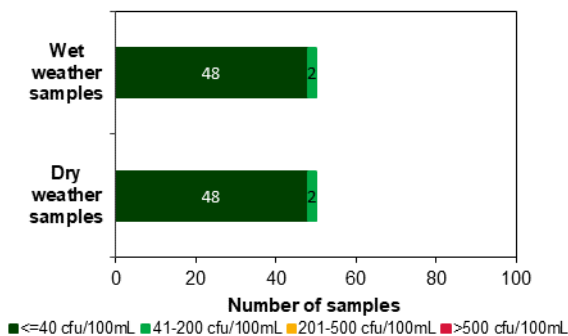
Sanitary inspection: Low



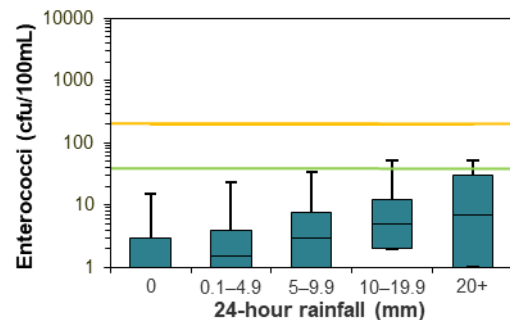
Microbial Assessment Category: A



Dry and wet weather water quality



Water quality in response to rainfall



Elouera Beach

Beach grade:



Wanda, Elouera and North Cronulla beaches form a 1.5 km stretch of beach towards the southern end of Bate Bay. Lifeguards patrol the beach from October to April.

The Beach Suitability Grade of Very Good indicates microbial water quality is considered suitable for swimming almost all of the time, with few potential sources of faecal contamination.

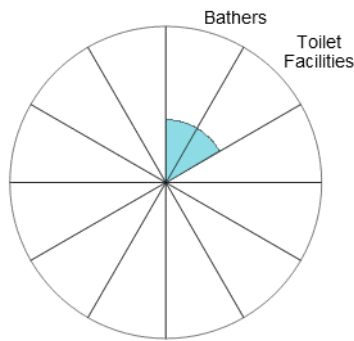
Enterococci levels increased slightly with increasing rainfall, but generally remained below the safe swimming limit across all rainfall categories.

See 'How to read this report' for key to map.

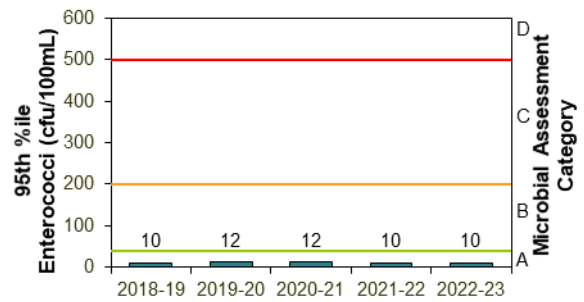
The site has been monitored since 1989.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Ocean beach	Aug 2021 to Apr 2023	96%	100	Stable

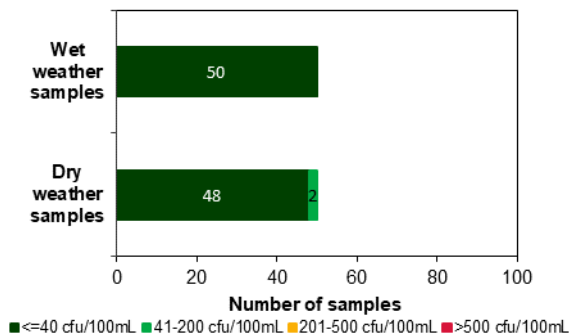
Sanitary inspection: Low



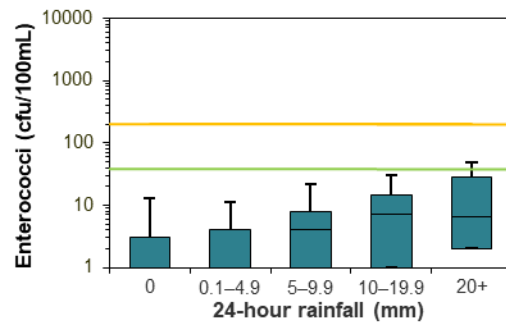
Microbial Assessment Category: A



Dry and wet weather water quality

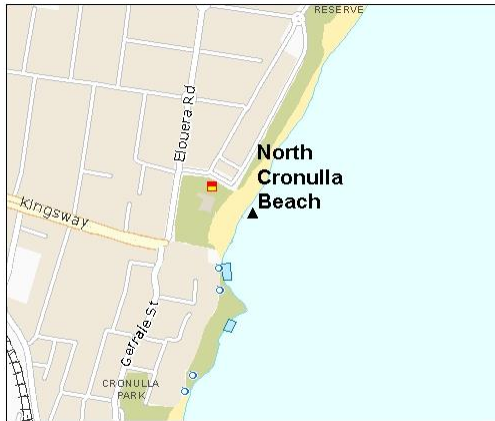


Water quality in response to rainfall



North Cronulla Beach

Beach grade:



North Cronulla Beach is at the southern end of a 1.5 km stretch of beach in Bate Bay. Lifeguards patrol the beach all year round.

The Beach Suitability Grade of Very Good indicates microbial water quality is considered suitable for swimming almost all of the time, with few potential sources of faecal contamination.

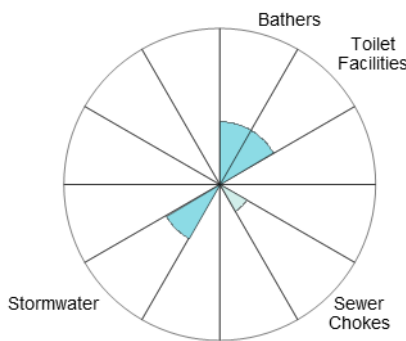
Enterococci levels increased slightly with increasing rainfall, but generally remained below the safe swimming limit across all rainfall categories.

See ‘How to read this report’ for key to map.

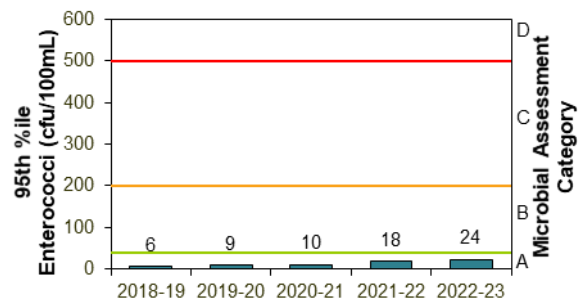
The site has been monitored since 1989.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Ocean beach	Jul 2021 to Apr 2023	100%	100	Stable

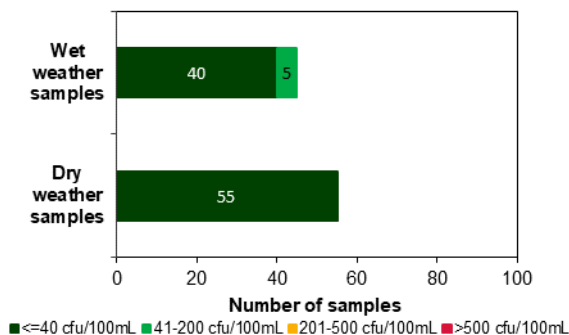
Sanitary inspection: Low



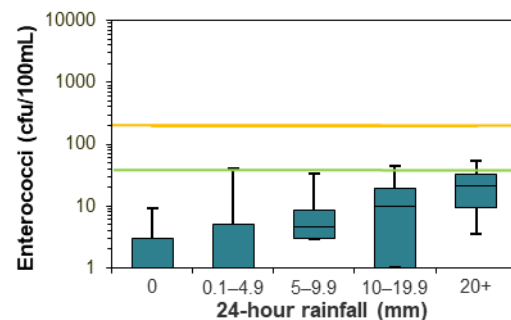
Microbial Assessment Category: A



Dry and wet weather water quality



Water quality in response to rainfall



South Cronulla Beach

Beach grade:



South Cronulla beach is 300 m long and situated at the southern end of Bate Bay. Lifeguards patrol the beach all year round.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of faecal contamination.

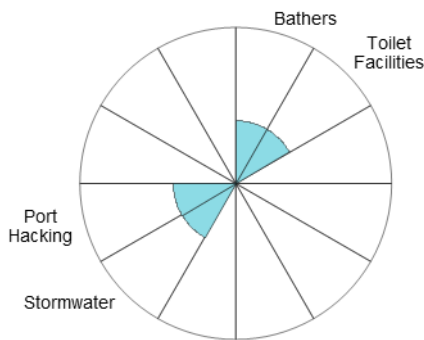
Enterococci levels increased slightly with increasing rainfall, occasionally exceeding the safe swimming in response to 10 mm or more of rain.

See 'How to read this report' for key to map.

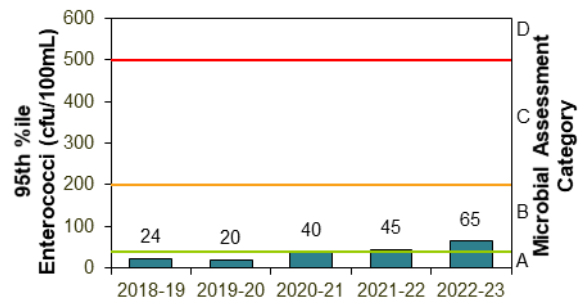
The site has been monitored since 1989.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Ocean beach	Sep 2021 to Apr 2023	96%	100	Stable

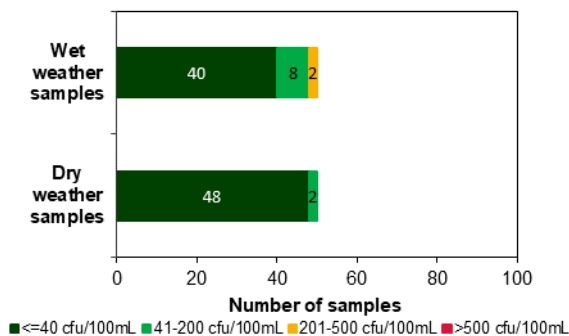
Sanitary inspection: Low



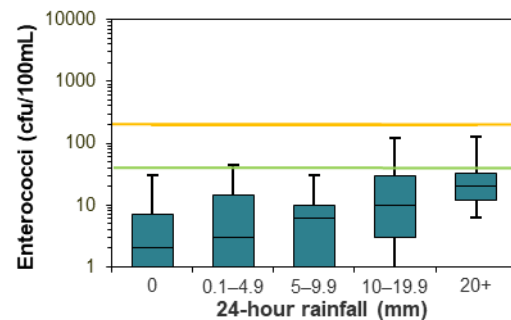
Microbial Assessment Category: B



Dry and wet weather water quality



Water quality in response to rainfall



Shelly Beach

Beach grade: **VG**



See ‘How to read this report’ for key to map.

Shelly beach is 50 m long and is not patrolled by lifeguards. The adjacent ocean pool is the most suitable area for swimming.

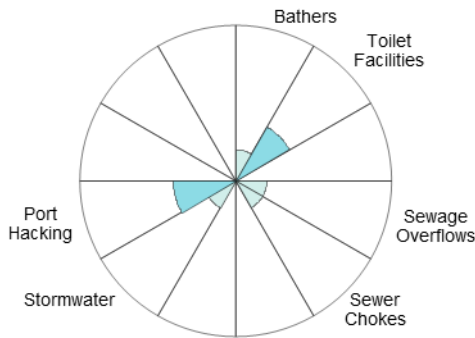
The Beach Suitability Grade of Very Good indicates microbial water quality is considered suitable for swimming almost all of the time, with few potential sources of significant faecal contamination.

Enterococci levels increased slightly with increasing rainfall, occasionally exceeding the safe swimming limit in response to 20 mm or more of rain.

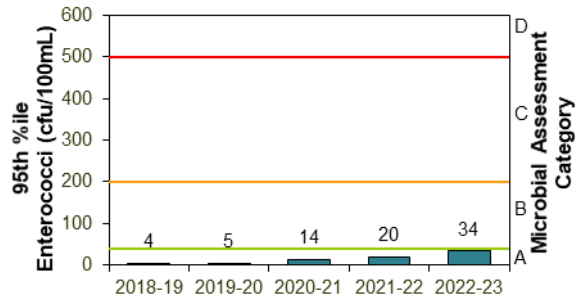
The site has been monitored since 1989.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Ocean beach	Sep 2021 to Apr 2023	96%	100	Stable

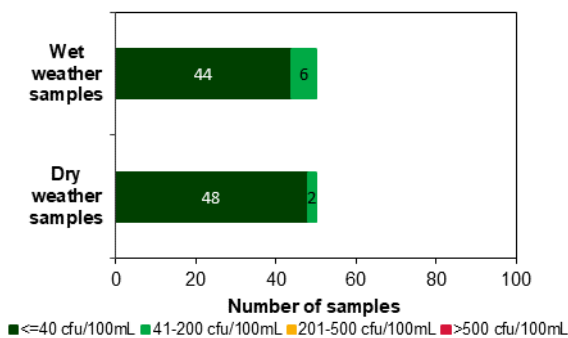
Sanitary inspection: Low



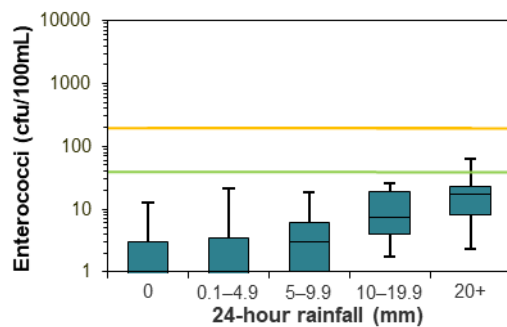
Microbial Assessment Category: A



Dry and wet weather water quality

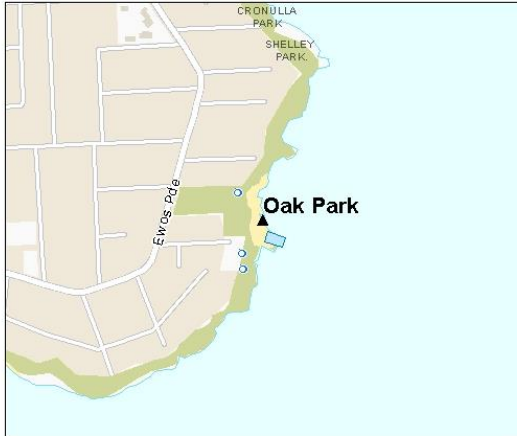


Water quality in response to rainfall



Oak Park

Beach grade:



Oak Park beach is 15 m long, with the most suitable area for swimming adjacent to the ocean pool. Lifeguards do not patrol the swimming area.

The Beach Suitability Grade of Very Good indicates microbial water quality is considered suitable for swimming almost all of the time, with few potential sources of significant faecal contamination.

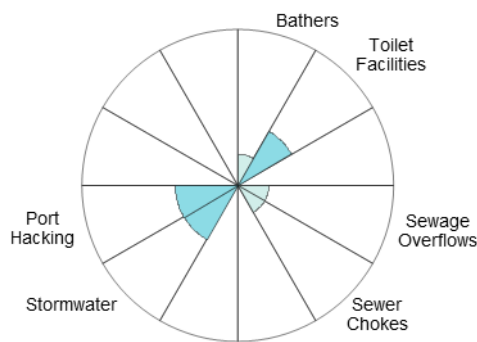
Enterococci levels increased slightly with increasing rainfall, occasionally exceeding the safe swimming limit in response to 5 mm or more of rain.

See 'How to read this report' for key to map.

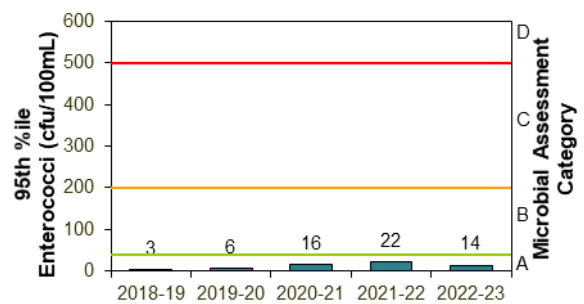
The site has been monitored since 1989.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Ocean beach	Sep 2021 to Apr 2023	100%	100	Stable

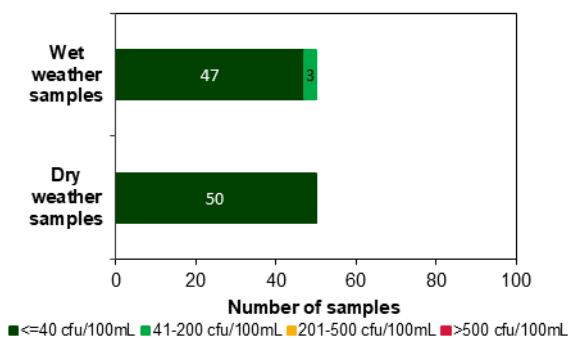
Sanitary inspection: Low



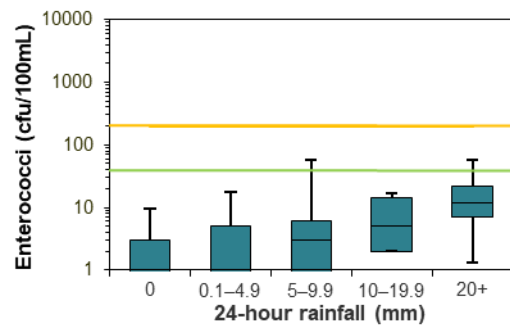
Microbial Assessment Category: A



Dry and wet weather water quality



Water quality in response to rainfall



Silver Beach

Beach grade:



Silver Beach is a netted swimming area at the centre of a 2.8 km long beach on the southern shore of Botany Bay.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of faecal contamination including stormwater.

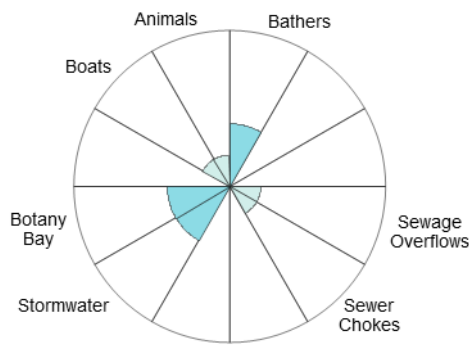
Enterococci levels increased slightly with increasing rainfall, occasionally exceeding the safe swimming limit after no rain, and often after 20 mm or more.

See 'How to read this report' for key to map.

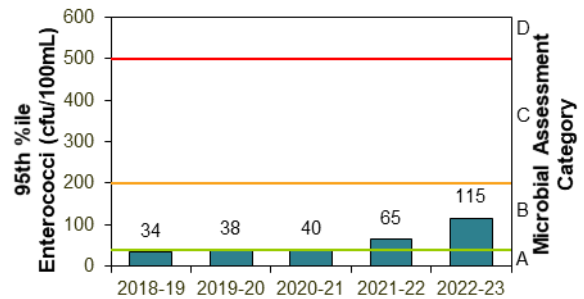
The site has been monitored since 1994.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	83%	100	Stable

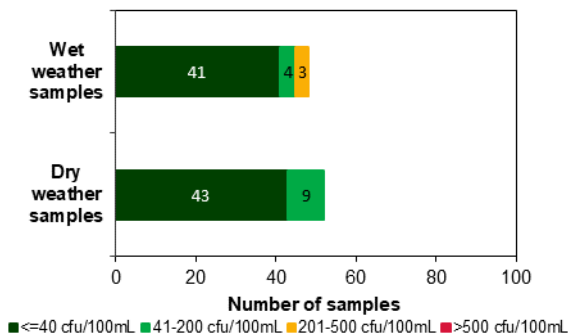
Sanitary inspection: Moderate



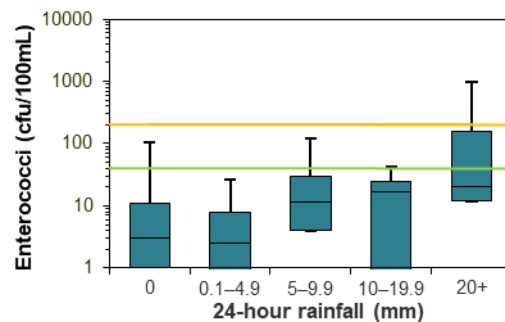
Microbial Assessment Category: B



Dry and wet weather water quality



Water quality in response to rainfall



Como Baths



Beach grade:



Como Baths is approximately 25 m wide and backed by a narrow sandy beach in the lower Georges River.

The Beach Suitability Grade of Poor indicates microbial water quality is susceptible to faecal pollution, particularly after rainfall and occasionally during dry weather conditions, with several potential sources of faecal contamination including upstream sources in the Georges River.

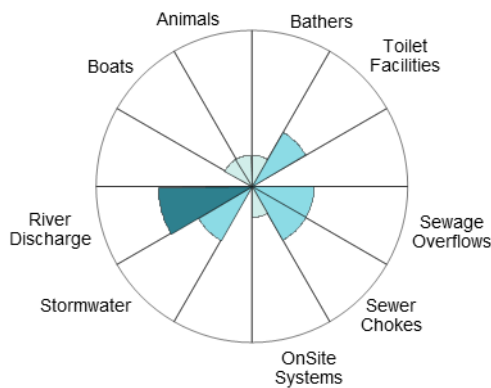
Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit in response to no rain, and often after 5 mm or more.

See 'How to read this report' for key to map.

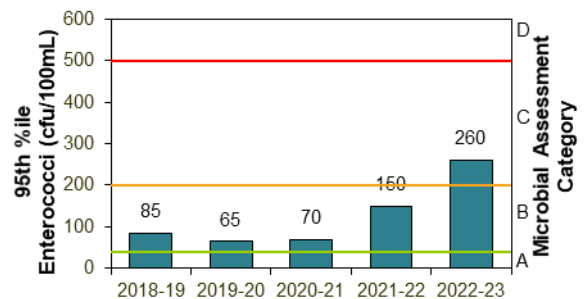
The site has been monitored since 1994.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	88%	100	Declined

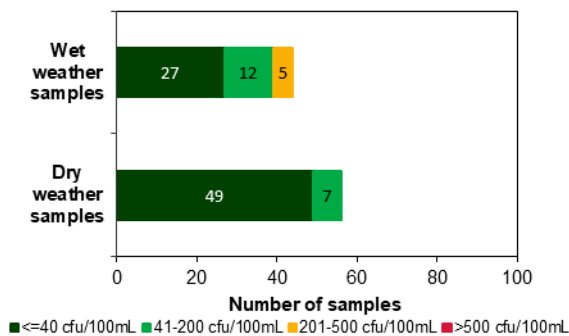
Sanitary inspection: Moderate



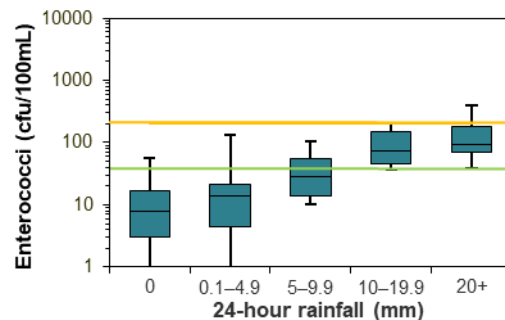
Microbial Assessment Category: C



Dry and wet weather water quality



Water quality in response to rainfall



Jew Fish Bay Baths

Beach grade: P



Jew Fish Bay Baths is a 200 m long netted swimming area located in Jew Fish Bay in the lower Georges River.

The Beach Suitability Grade of Poor indicates microbial water quality is susceptible to faecal pollution, particularly after rainfall and occasionally during dry weather conditions, with several potential sources of faecal contamination including upstream sources in the Georges River.

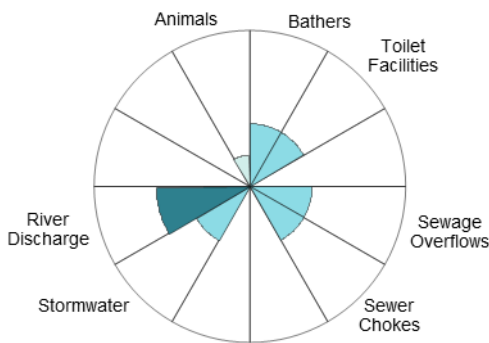
Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit after little or no rain, and often after 5 mm or more.

See 'How to read this report' for key to map.

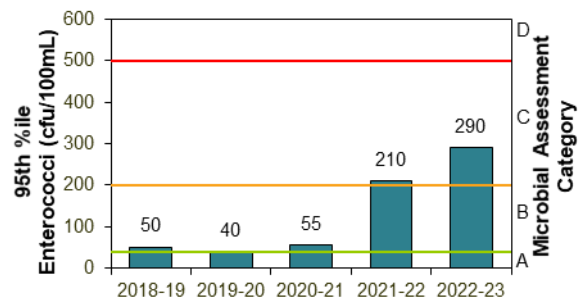
The site has been monitored since 1994.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	92%	100	Stable

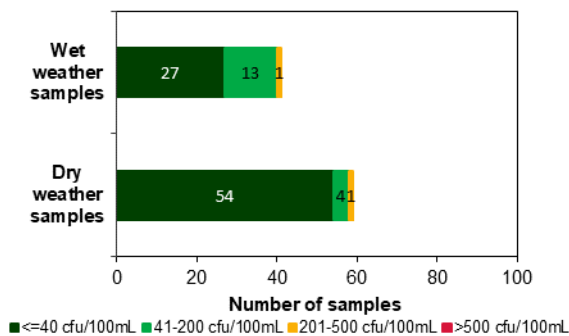
Sanitary inspection: Moderate



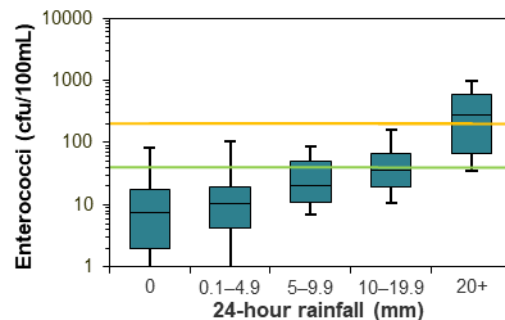
Microbial Assessment Category: C



Dry and wet weather water quality

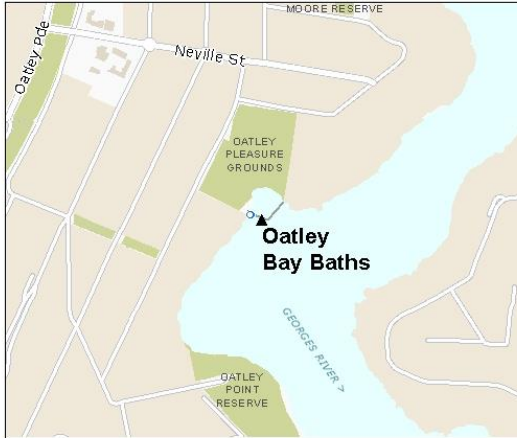


Water quality in response to rainfall



Oatley Bay Baths

Beach grade: P



See 'How to read this report' for key to map.

Oatley Bay Baths is a netted swimming area located on the western shore of Oatley Bay in the lower Georges River.

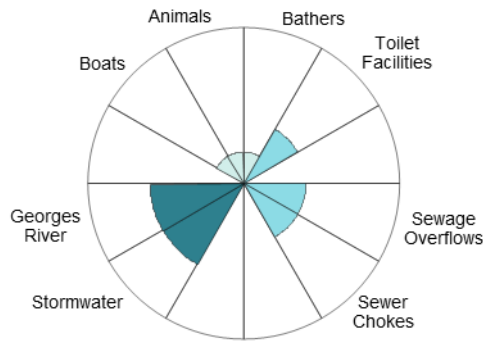
The Beach Suitability Grade of Poor indicates microbial water quality is susceptible to faecal pollution, particularly after rainfall and occasionally during dry weather conditions, with several potential sources of faecal contamination including upstream sources in the Georges River and stormwater.

Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit after little or no rain, and regularly after 5 mm or more.

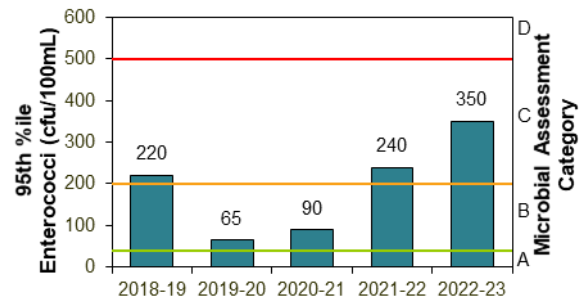
The site has been monitored since 1994.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	82%	100	Stable

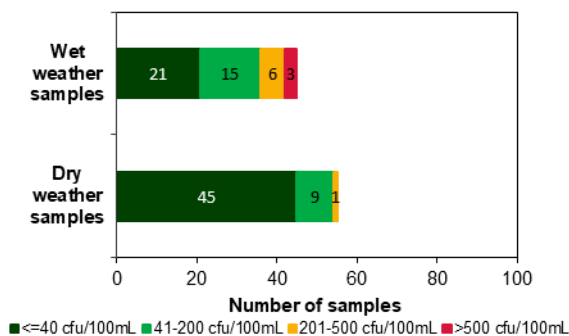
Sanitary inspection: Moderate



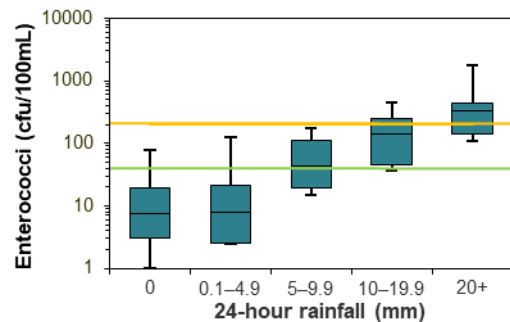
Microbial Assessment Category: C



Dry and wet weather water quality



Water quality in response to rainfall



Carss Point Baths

Beach grade: P



See 'How to read this report' for key to map.

Carss Point Baths is a netted swimming enclosure on the western shore of Kogarah Bay in the lower Georges River.

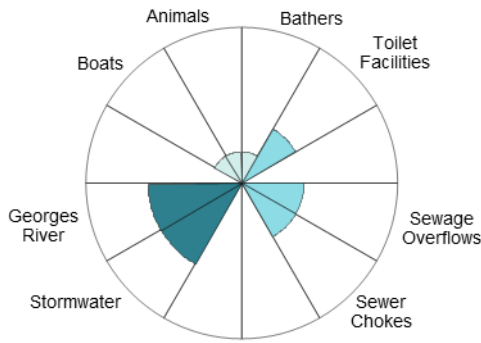
The Beach Suitability Grade of Poor indicates microbial water quality is susceptible to faecal pollution, particularly after rainfall and occasionally during dry weather conditions, with several potential sources of faecal contamination including upstream sources in the Georges River and stormwater.

Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit after light or no rain, and regularly after 5 mm or more.

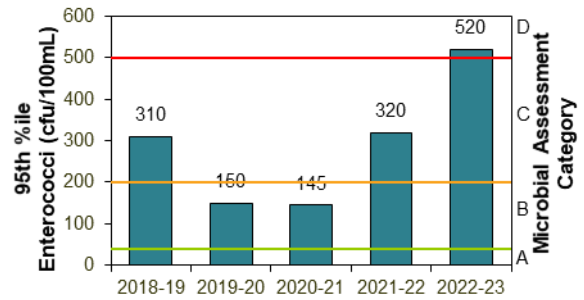
The site has been monitored since 1994.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	80%	100	Stable

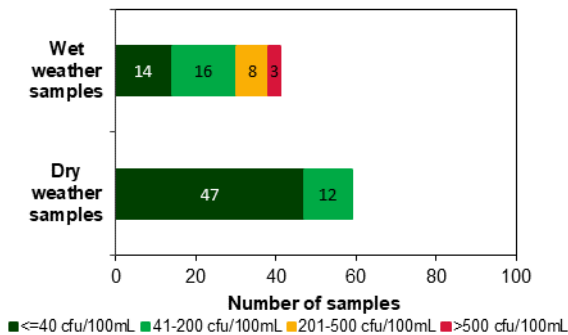
Sanitary inspection: Moderate



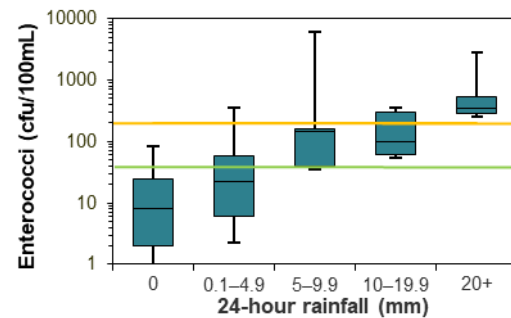
Microbial Assessment Category: D



Dry and wet weather water quality



Water quality in response to rainfall



Sandringham Baths

Beach grade: G



Sandringham Baths is a netted swimming area near the mouth of the Georges River and is backed by a small beach.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of faecal contamination including discharge from the Georges River.

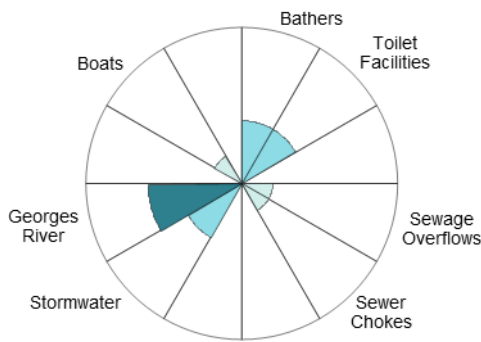
Enterococci levels increased slightly with increasing rainfall, occasionally exceeding the safe swimming limit after 5 mm or more of rain, and regularly after 20 mm or more.

The site has been monitored since 1994.

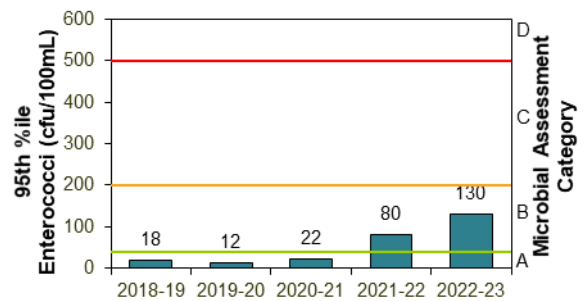
See 'How to read this report' for key to map.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	93%	100	Stable

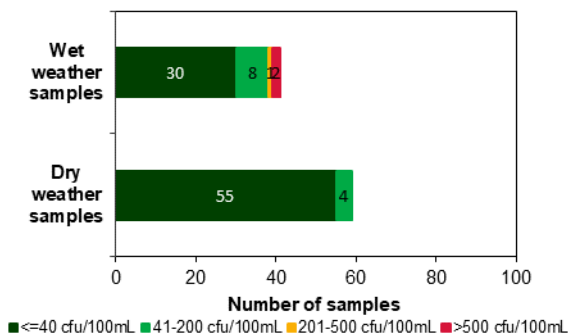
Sanitary inspection: Moderate



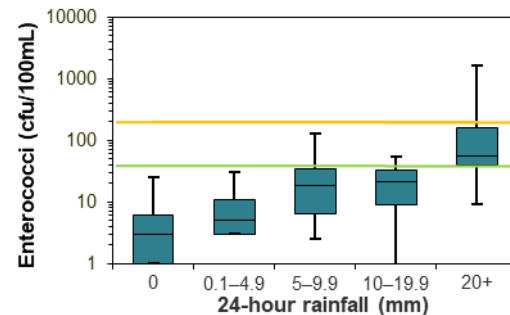
Microbial Assessment Category: B



Dry and wet weather water quality

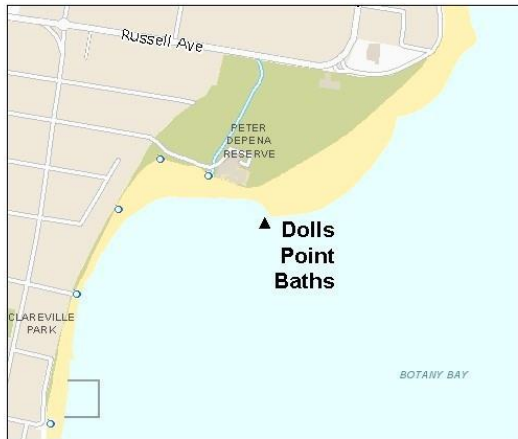


Water quality in response to rainfall



Dolls Point Baths

Beach grade: P



Dolls Point Baths is a netted swimming area with a sandy beach at the southern end of Lady Robinsons Beach in Botany Bay.

The Beach Suitability Grade of Poor indicates microbial water quality is susceptible to faecal pollution, particularly after rainfall and occasionally during dry weather conditions, with several potential sources of faecal contamination including discharge from the Georges River.

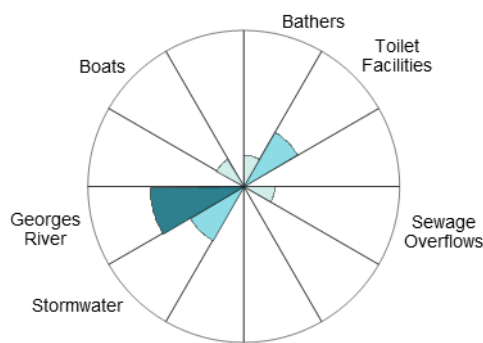
Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit after little or no rain, and often after 5 mm or more.

The site has been monitored since 1994.

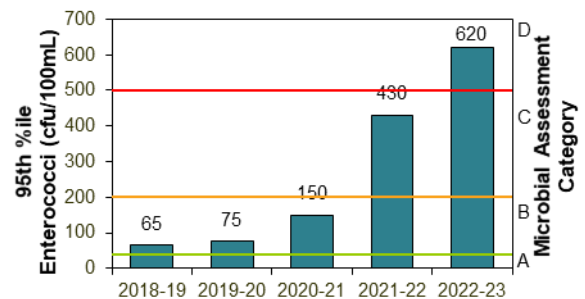
See 'How to read this report' for key to map.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	63%	100	Stable

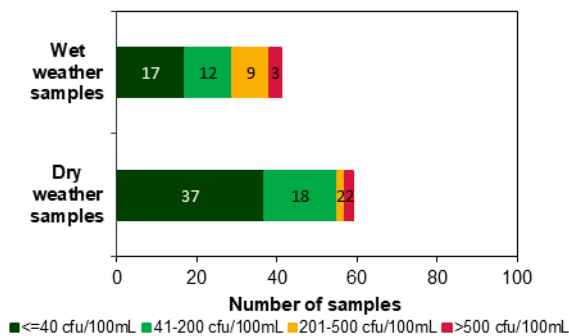
Sanitary inspection: Moderate



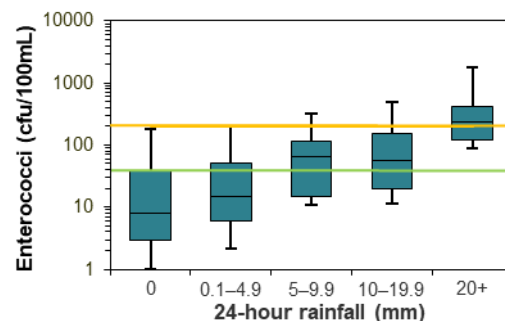
Microbial Assessment Category: D



Dry and wet weather water quality



Water quality in response to rainfall



Ramsgate Baths

Beach grade: G



Ramsgate Baths is a netted swimming enclosure with a sandy beach near the southern end of Lady Robinsons Beach in Botany Bay.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but can be susceptible to pollution after rain, with several potential sources of faecal contamination including discharge from the Georges River.

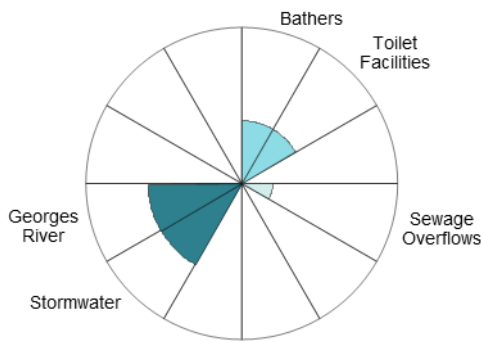
Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit after little or no rain, and often after 5 mm or more.

See 'How to read this report' for key to map.

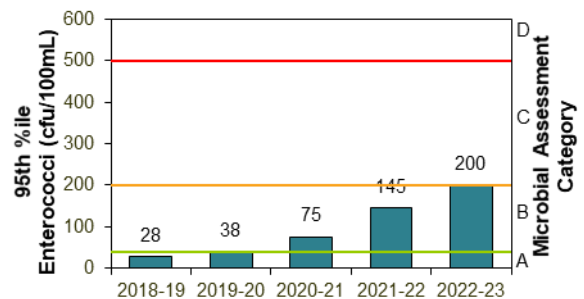
The site has been monitored since 1994.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	85%	100	Stable

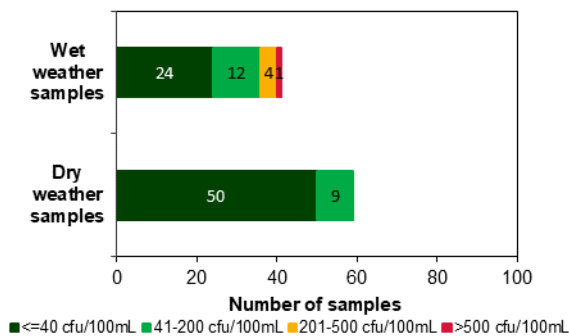
Sanitary inspection: Moderate



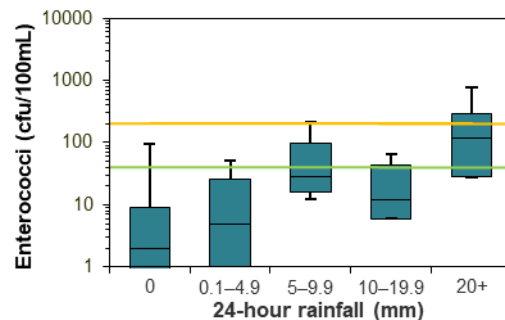
Microbial Assessment Category: B



Dry and wet weather water quality

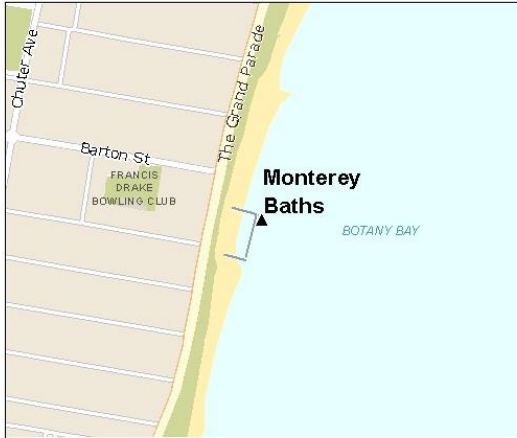


Water quality in response to rainfall



Monterey Baths

Beach grade: G



See 'How to read this report' for key to map.

Monterey Baths is a netted swimming area with a sandy beach located toward the southern end of Lady Robinsons Beach.

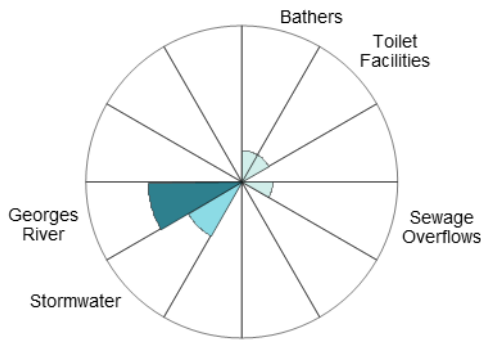
The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of faecal contamination including discharge from the Georges River and stormwater.

Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit after little or no rain, and often after 5 mm or more.

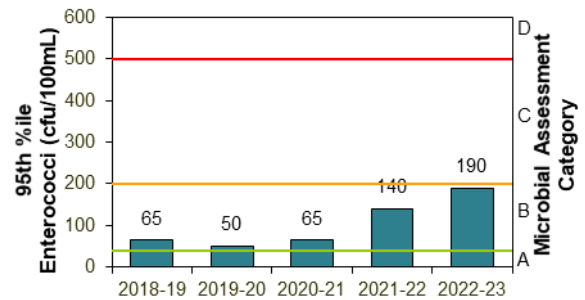
The site has been monitored since 1994.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	84%	100	Stable

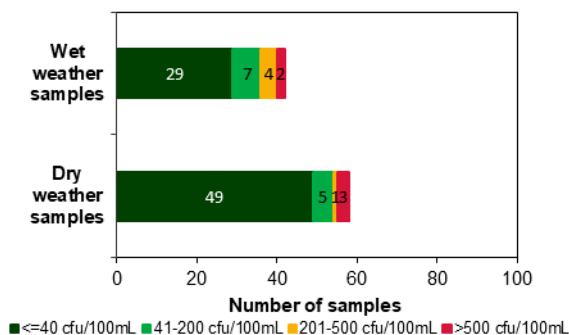
Sanitary inspection: Moderate



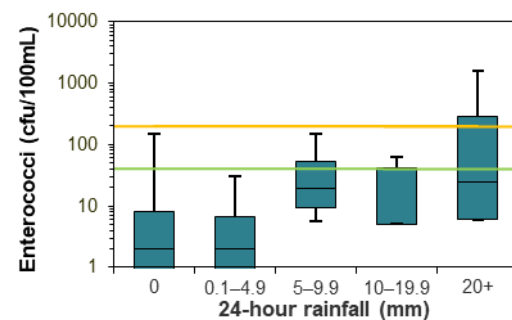
Microbial Assessment Category: B



Dry and wet weather water quality

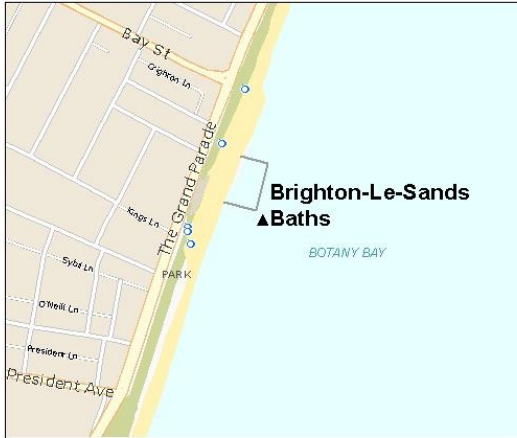


Water quality in response to rainfall



Brighton-Le-Sands Baths

Beach grade: P



Brighton-Le-Sands Baths is a netted swimming area at the centre of Lady Robinsons Beach in Botany Bay and is backed by a sandy beach.

The Beach Suitability Grade of Poor indicates microbial water quality is susceptible to faecal pollution, particularly after rainfall and occasionally during dry weather conditions, with several potential sources of faecal contamination including sewage overflows and river discharge.

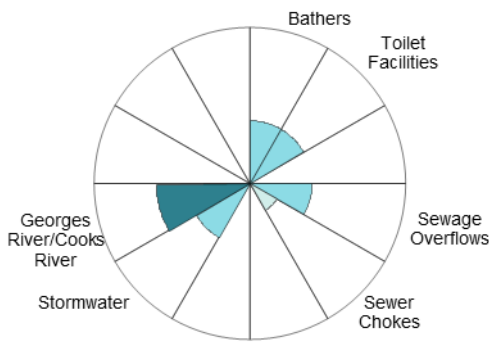
Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit after little or no rain, and regularly after 5 mm or more.

See 'How to read this report' for key to map.

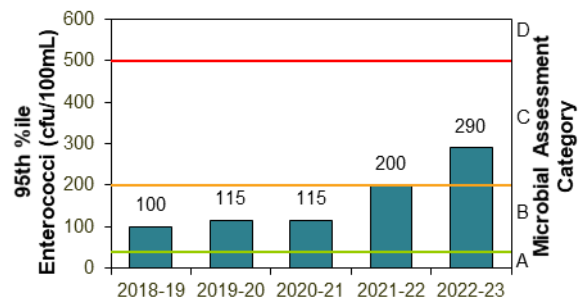
The site has been monitored since 1994.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	84%	100	Declined ↓

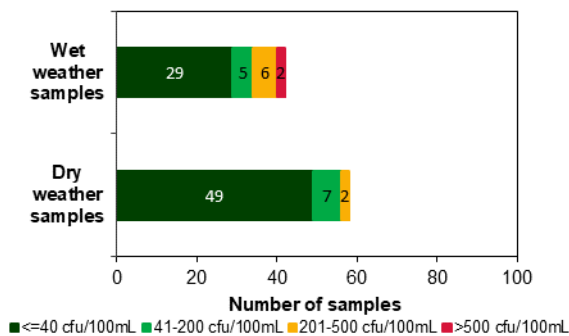
Sanitary inspection: Moderate



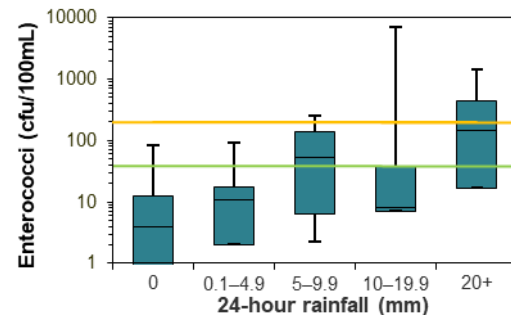
Microbial Assessment Category: C



Dry and wet weather water quality



Water quality in response to rainfall



Kyeemagh Baths

Beach grade:



Kyeemagh Baths is a netted swimming area with a sandy beach at the northern end of Lady Robinsons Beach, near the Cooks River mouth.

The Beach Suitability Grade of Poor indicates microbial water quality is susceptible to faecal pollution, particularly after rainfall and occasionally during dry weather conditions, with several potential sources of faecal contamination including the discharge from the Cooks River and sewage overflows.

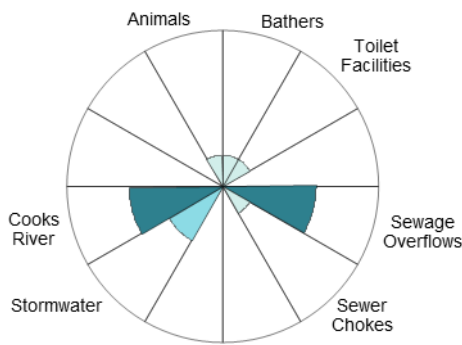
Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit after little or no rain, and regularly after 5 mm or more.

See 'How to read this report' for key to map.

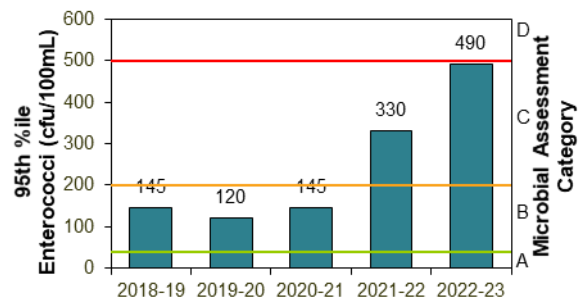
The site has been monitored since 1994.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	75%	100	Stable

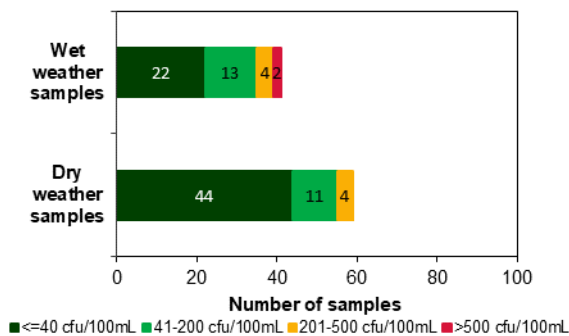
Sanitary inspection: Moderate



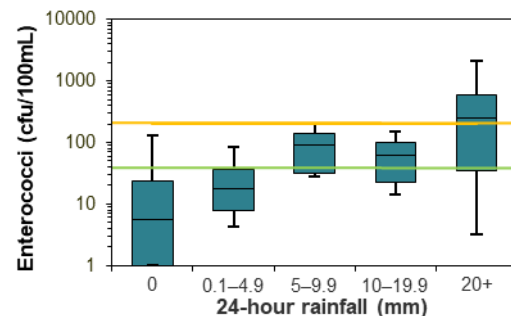
Microbial Assessment Category: C



Dry and wet weather water quality



Water quality in response to rainfall



Foreshores Beach

Beach grade: VP



Foreshores Beach is an unnetted sandy beach in Botany Bay. It is located near a boat ramp, and is adjacent to the Sydney Airport runway and Port Botany.

The Beach Suitability Grade of Very Poor indicates microbial water quality is very susceptible to faecal pollution with many potential sources of faecal contamination including stormwater and sewage overflows that discharge into Mill Stream.

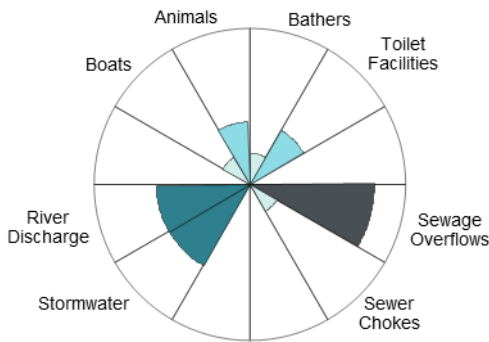
Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit after no rain, and often after rainfall.

See 'How to read this report' for key to map.

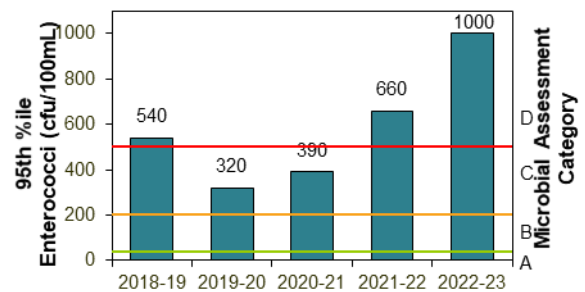
The site has been monitored since 1994.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	67%	100	Stable

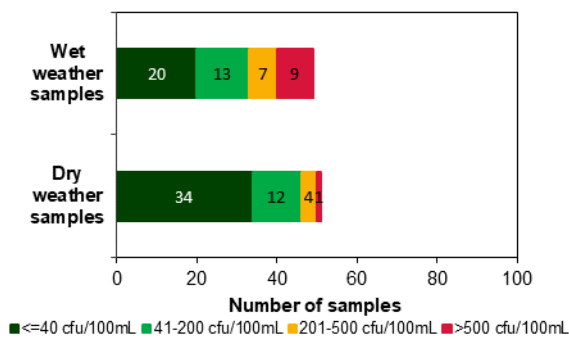
Sanitary inspection: High



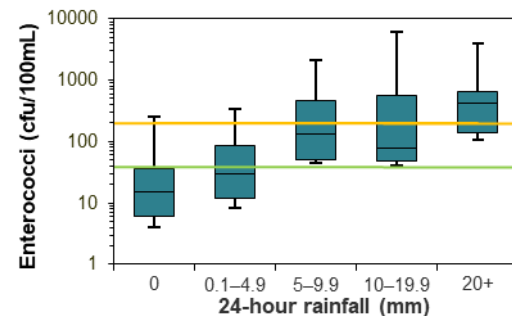
Microbial Assessment Category: D



Dry and wet weather water quality



Water quality in response to rainfall



Yarra Bay

Beach grade: P



See 'How to read this report' for key to map.

Yarra Bay is a 750 m long sandy beach in Botany Bay. The swimming area is not netted and has a rock groyne at the southern end.

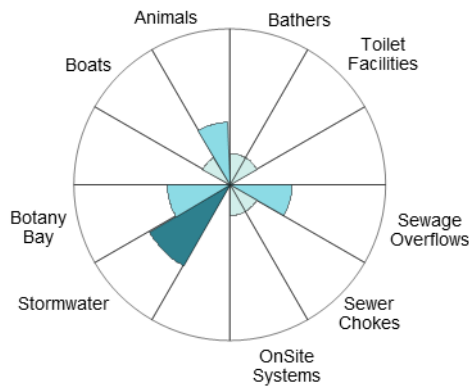
The Beach Suitability Grade of Poor indicates microbial water quality is susceptible to faecal pollution, particularly after rainfall and occasionally during dry weather conditions, with several potential sources of faecal contamination including stormwater that ponds in the middle of the beach.

Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit after no rain, and regularly after 5 mm or more.

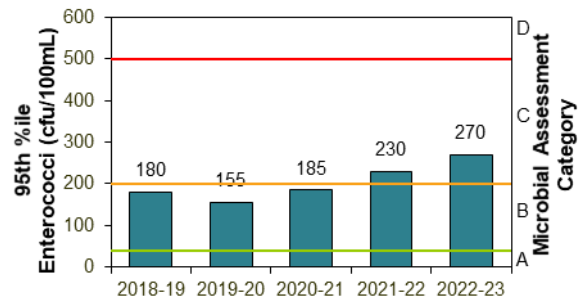
The site has been monitored since 1994.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	88%	100	Stable

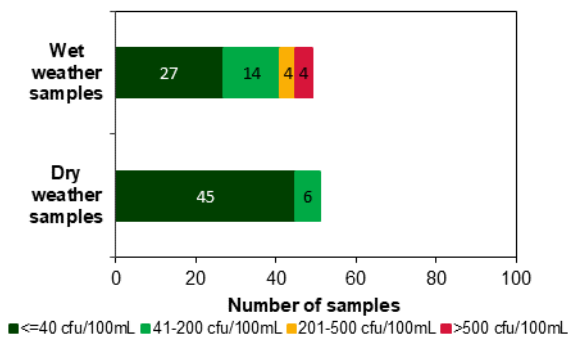
Sanitary inspection: Moderate



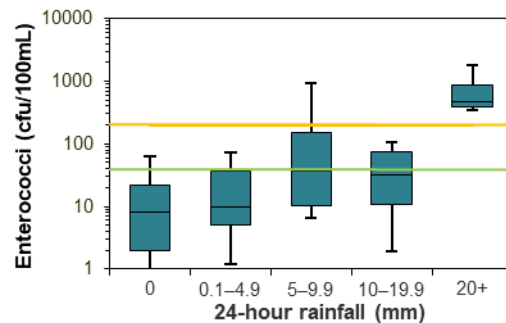
Microbial Assessment Category: C



Dry and wet weather water quality

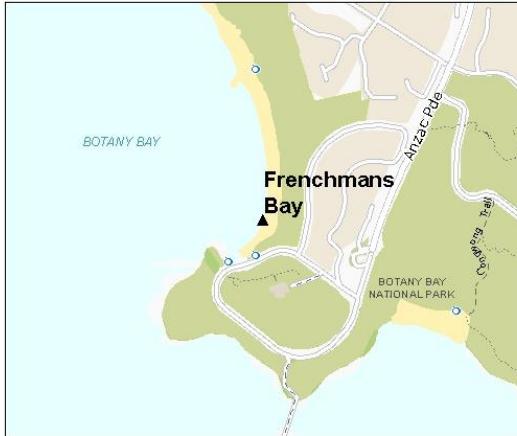


Water quality in response to rainfall



Frenchmans Bay

Beach grade: P



Frenchmans Bay is a 500 m long sandy beach in Botany Bay. The swimming area is not netted.

The Beach Suitability Grade of Poor indicates microbial water quality is susceptible to faecal pollution, particularly after rainfall and occasionally during dry weather conditions, with potential faecal contamination from several sources including stormwater.

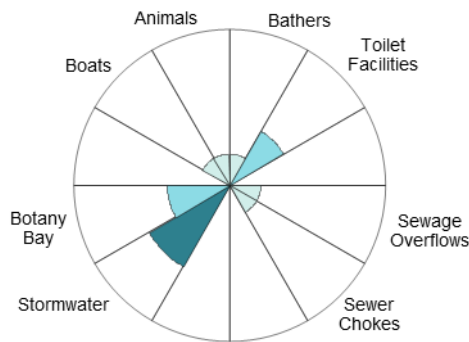
Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit after little or no rain, and regularly after 5 mm or more.

See 'How to read this report' for key to map.

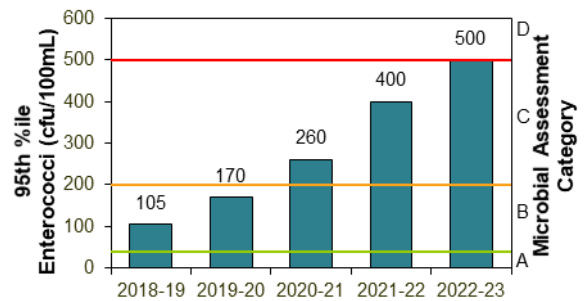
The site has been monitored since 1994.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	71%	100	Stable

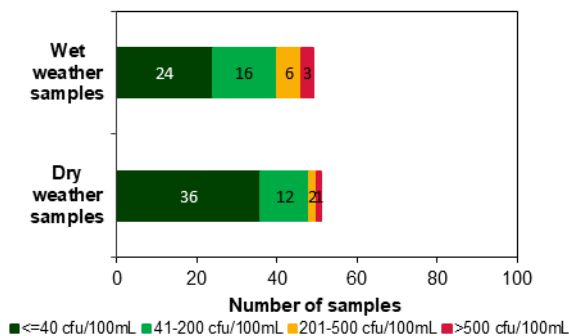
Sanitary inspection: Moderate



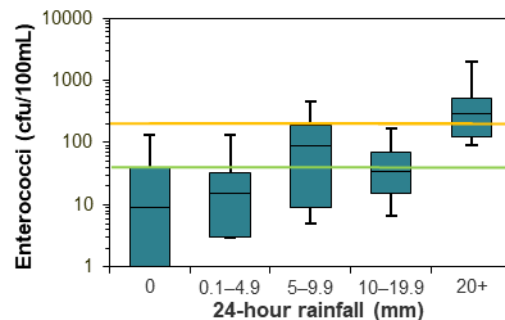
Microbial Assessment Category: C



Dry and wet weather water quality

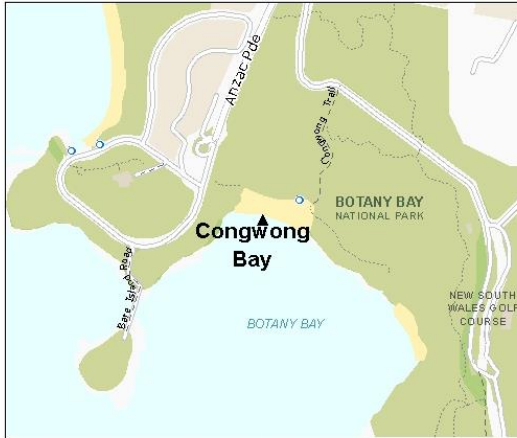


Water quality in response to rainfall



Congwong Bay

Beach grade:



Congwong Bay is a 150 m long beach near the mouth of Botany Bay. The swimming area is not netted.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but can be susceptible to pollution after rain, with several potential sources of minor faecal contamination.

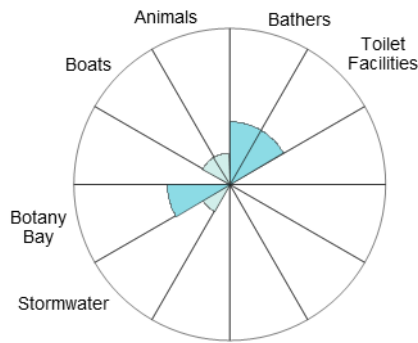
Enterococci levels increased slightly with increasing rainfall, occasionally exceeding the safe swimming limit after little or no rain, and often after 10 mm or more.

See 'How to read this report' for key to map.

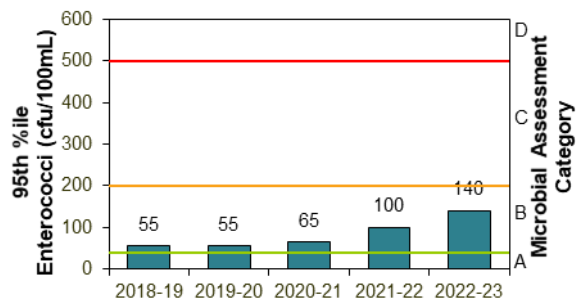
The site has been monitored since 1994.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Feb 2021 to Apr 2023	92%	100	Stable

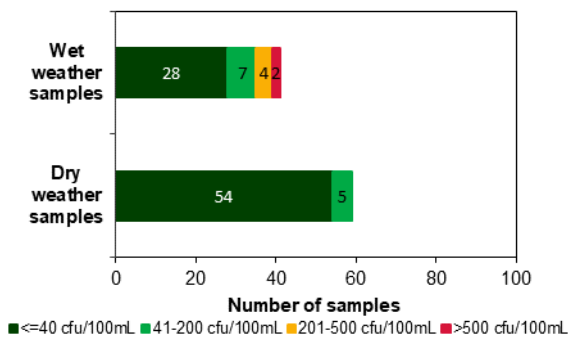
Sanitary inspection: Low



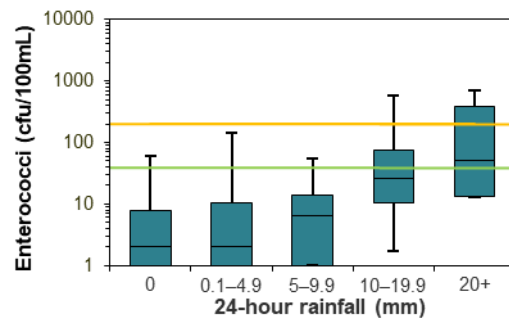
Microbial Assessment Category: B



Dry and wet weather water quality



Water quality in response to rainfall



Jibbon Beach

Beach grade:



Jibbon Beach is located at the entrance to Port Hacking. The beach is backed by the Royal National Park and accessed from Bundeena.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of faecal contamination.

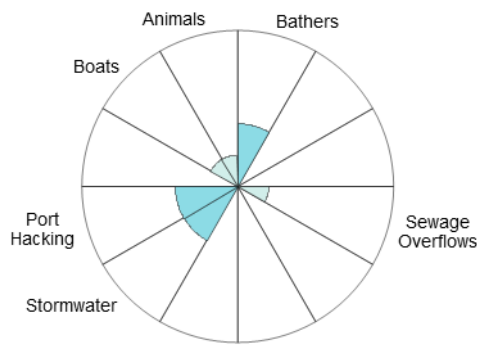
Enterococci levels increased slightly with rainfall, occasionally exceeding the safe swimming limit after 5 mm or more of rainfall, and often after 20 mm or more.

See 'How to read this report' for key to map.

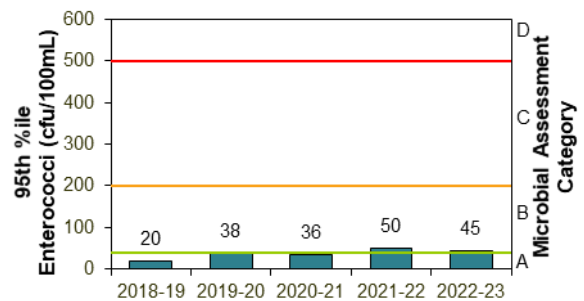
The site has been monitored since 1999.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	95%	100	Stable

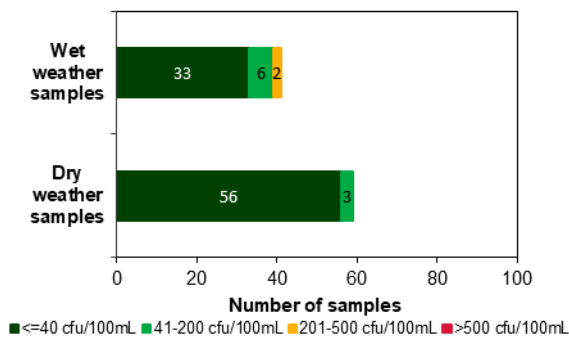
Sanitary inspection: Low



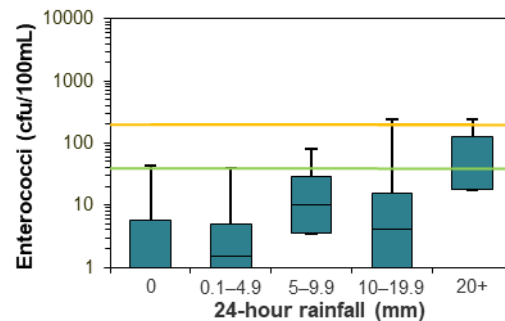
Microbial Assessment Category: B



Dry and wet weather water quality

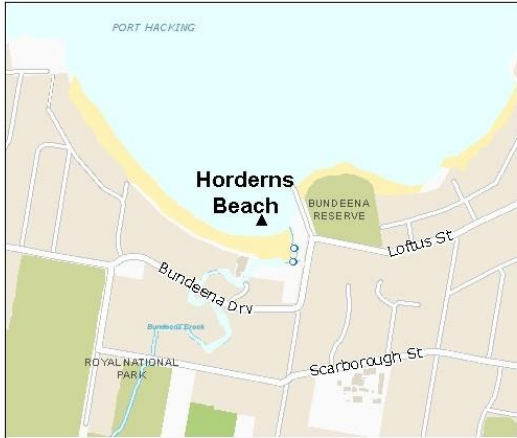


Water quality in response to rainfall



Horderns Beach

Beach grade: G



Horderns Beach is located on the southern shore of Port Hacking and is backed by the town of Bundeena.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of faecal contamination including Bundeena Creek.

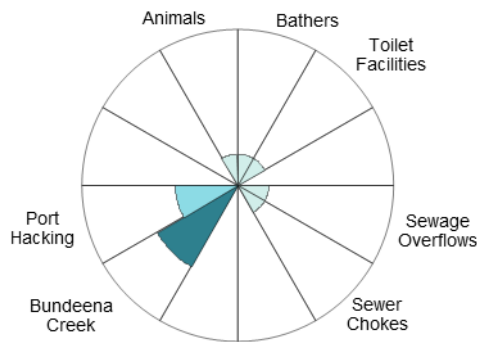
Enterococci levels generally increased with increasing rainfall, occasionally exceeding the safe swimming limit after little or no rain, and regularly after 20 mm or more.

See 'How to read this report' for key to map.

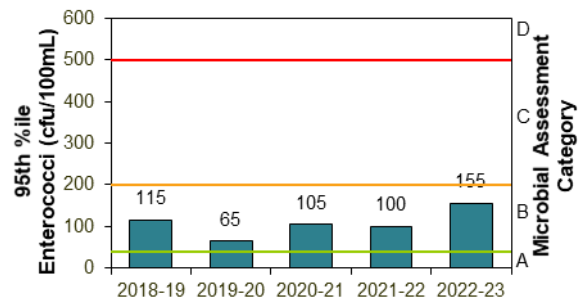
The site has been monitored since 1999.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	92%	100	Stable

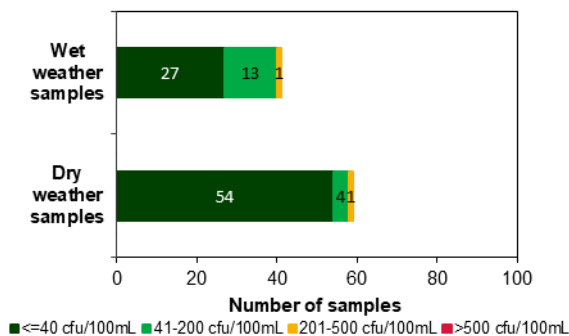
Sanitary inspection: Moderate



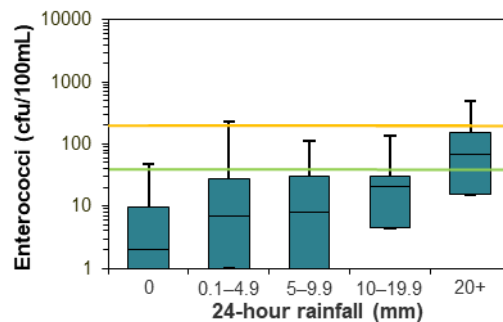
Microbial Assessment Category: B



Dry and wet weather water quality



Water quality in response to rainfall



GyMEA Bay Baths

Beach grade: VP



GyMEA Bay Baths is an enclosed tidal swimming area backed by a narrow sandy beach in the upper reaches of Port Hacking.

The Beach Suitability Grade of Very Poor indicates microbial water quality is very susceptible to faecal pollution with many potential sources of faecal contamination including stormwater.

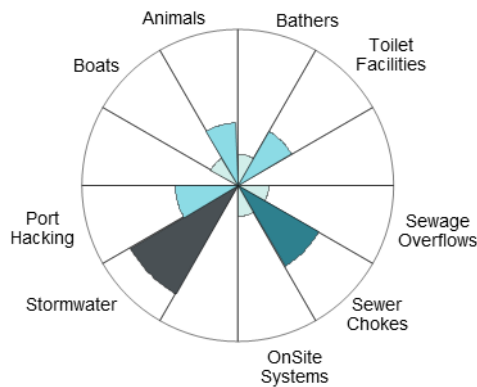
Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit after no rain, and often after rainfall.

See 'How to read this report' for key to map.

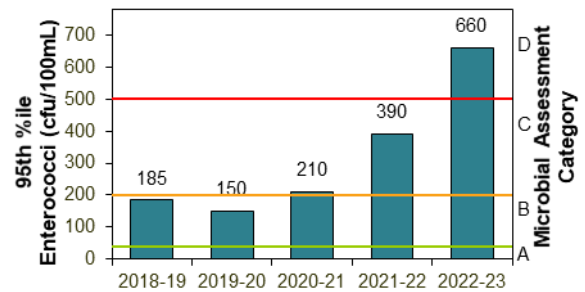
The site has been monitored since 1999.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Oct 2020 to Apr 2023	74%	100	Declined

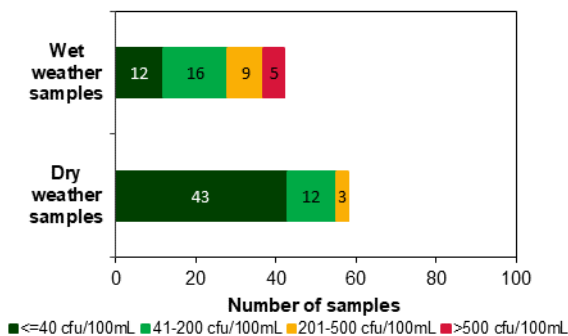
Sanitary inspection: High



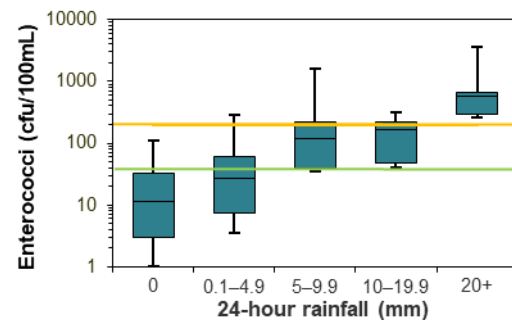
Microbial Assessment Category: D



Dry and wet weather water quality

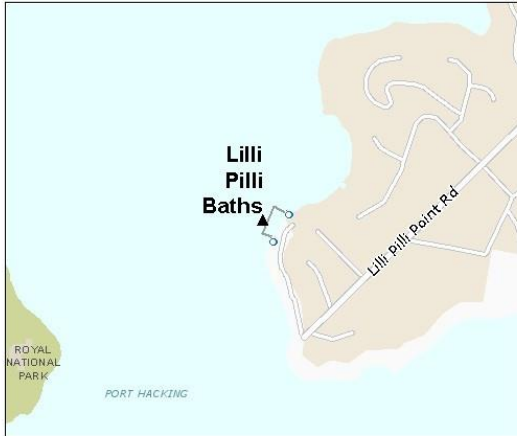


Water quality in response to rainfall



Lilli Pilli Baths

Beach grade: G



Lilli Pilli Baths is a netted tidal swimming area on the western side of Lilli Pilli Point in Port Hacking.

The Beach Suitability Grade of Good indicates microbial water quality is considered suitable for swimming most of the time but may be susceptible to pollution after rain, with several potential sources of faecal contamination including stormwater.

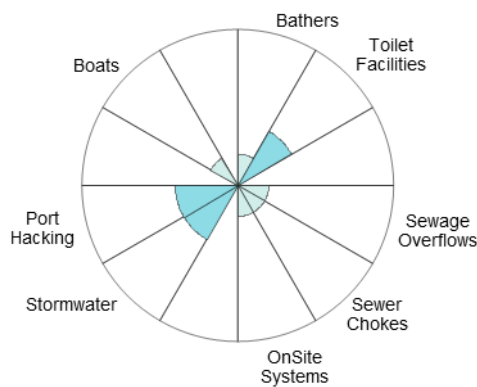
Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit after light rain, and often after 5 mm or more.

See 'How to read this report' for key to map.

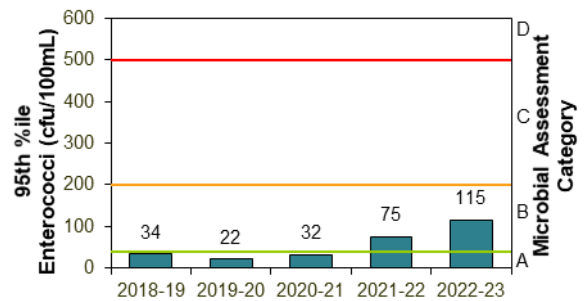
The site has been monitored since 1999.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	91%	100	Stable

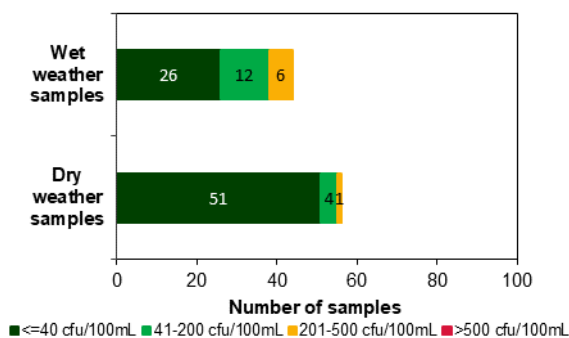
Sanitary inspection: Moderate



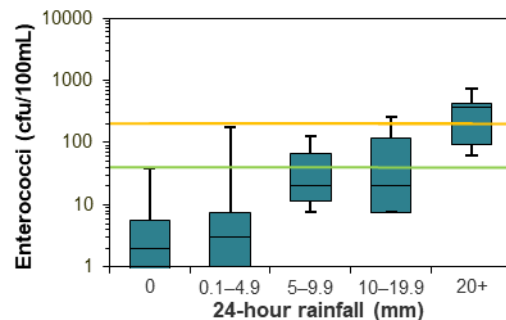
Microbial Assessment Category: B



Dry and wet weather water quality

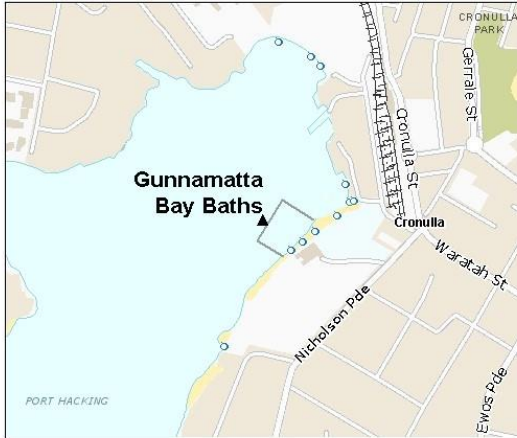


Water quality in response to rainfall



Gunnamatta Bay Baths

Beach grade: P



Gunnamatta Bay Baths is a netted tidal swimming area in the lower reaches of Port Hacking and is backed by a narrow beach.

The Beach Suitability Grade of Poor indicates microbial water quality is susceptible to faecal pollution, particularly after rainfall and occasionally during dry weather conditions, with potential faecal contamination from several sources including stormwater.

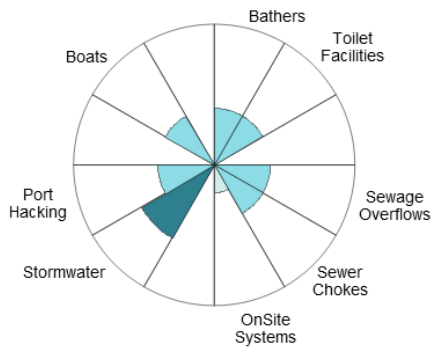
Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit after little or no rain, and regularly after 5 mm or more.

The site has been monitored since 1994.

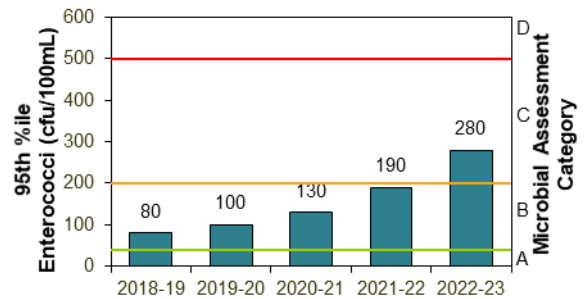
See 'How to read this report' for key to map.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Estuarine	Nov 2020 to Apr 2023	83%	100	Declined ↓

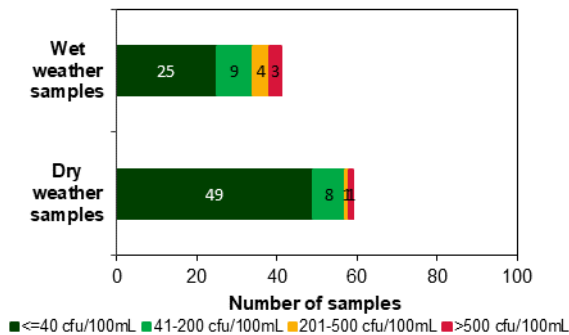
Sanitary inspection: Moderate



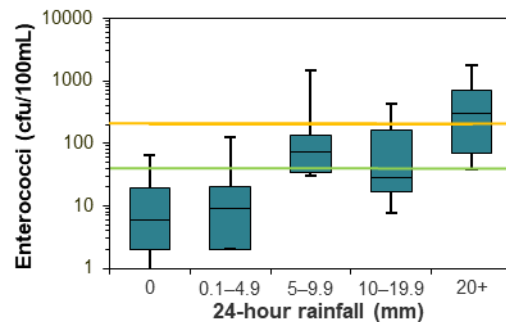
Microbial Assessment Category: C



Dry and wet weather water quality



Water quality in response to rainfall



Western Sydney (Blue Mountains)



Wentworth Falls Lake – Jetty Photo: Beachwatch/DPE

Overall results

No monitored swimming sites were graded as Very Good or Good in 2022–2023. Monitoring at these sites under the Beachwatch Partnership Program commenced in November 2022. Blue Mountains City Council previously monitored these swimming sites since 2013.

Percentage of sites graded as Very Good or Good

	2020–2021	2021–2022	2022–2023	Trend
Freshwater (4 sites)	25%	25%	0%	

Four swimming sites were monitored by Blue Mountains City Council. Samples were collected weekly between November and March and sampling and laboratory analysis was fully funded by the council.

See the section on **How to read this report** on page 132 for an explanation of the graphs, tables and Beach Suitability Grades.

Swimming sites monitored in the Western Sydney region include freshwater sites in Wentworth Falls Lake, and shallow pools in Yosemite Creek and Megalong Creek in the Blue Mountains.

Low levels of flushing in shallow pools and freshwater creeks can increase the time needed to disperse and dilute pollution inputs, taking longer to recover from stormwater events.

As a general precaution swimming should be avoided during and for up to 3 days in freshwater creeks and shallow pools, or if there are signs of stormwater pollution such as discoloured water or floating debris.



Site types in Western Sydney

Freshwater swim sites



Beach Suitability Grades for Western Sydney

All 4 Western Sydney freshwater sites were graded as Poor or Very Poor in 2022–2023.

Megalong Creek, Wentworth Falls Lake – Jetty and Wentworth Falls Lake – Beach were graded as Poor. These sites are susceptible to pollution after rainfall, with a larger proportion of samples collected during wet weather conditions contributing to the Poor grades.

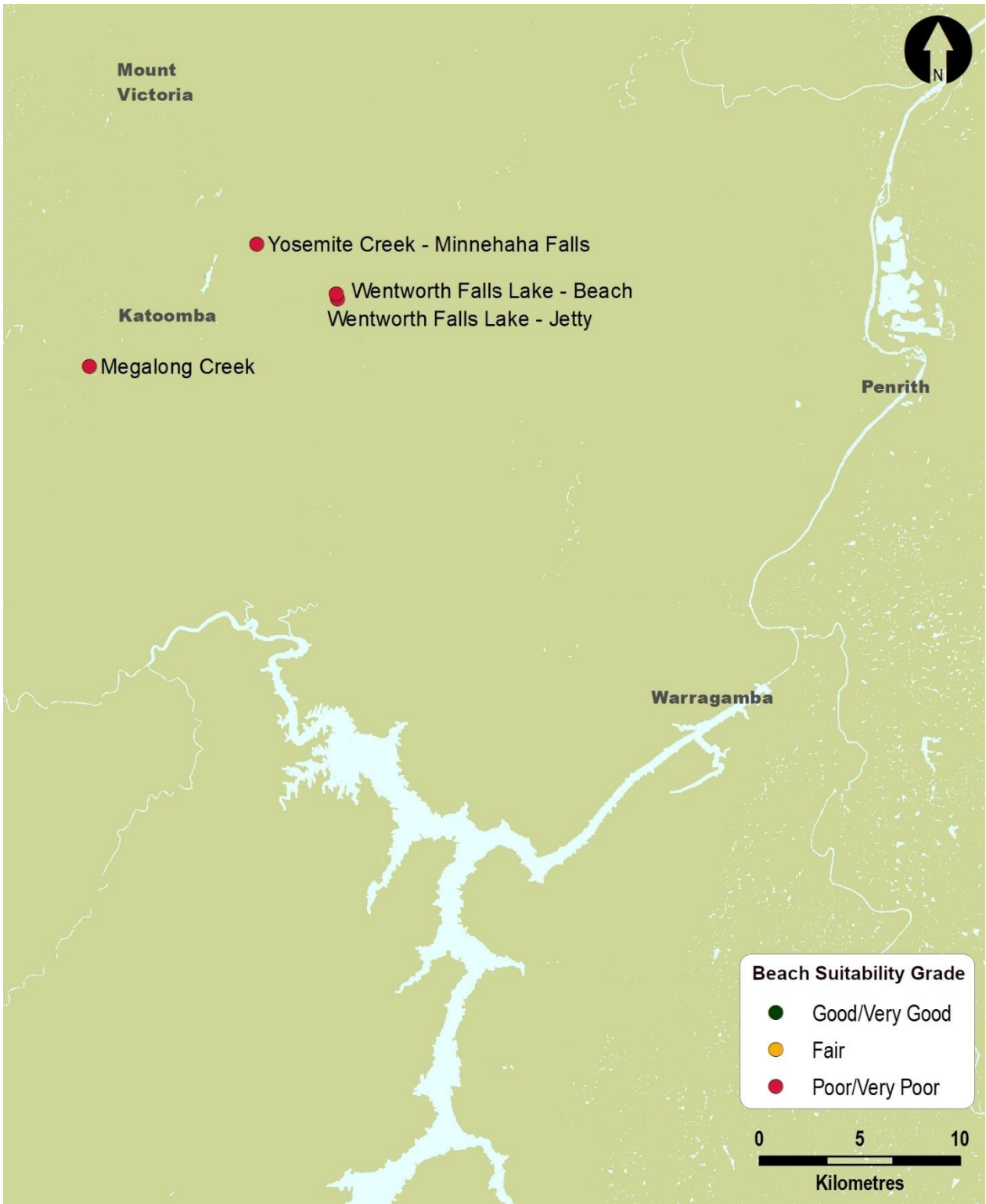
Megalong Creek microbial water quality is susceptible to faecal pollution, particularly after rainfall and regularly during dry weather conditions, with potential faecal contamination from upstream sources in the creek. Despite the Poor grade, Megalong Creek has shown trends of improved microbial assessments in recent years with management actions improving water quality at this site.

Wentworth Falls Lake – Beach was downgraded to Poor from Good in the previous year. Despite the Poor grade, water quality at this site is mostly suitable for swimming during dry weather conditions, with 77% of dry weather samples within the safe swimming limit. This site can be susceptible to wet weather impacts and has several sources of faecal contamination including stormwater and animals.

Yosemite Creek – Minnehaha Falls was graded as Very Poor. Several potential sources of faecal contamination have been identified in the sanitary inspection, including stormwater, sewer chokes and impacts from upstream sources in Yosemite Creek. Small shallow pools can take longer to recover from stormwater events with low levels of flushing increasing the time needed to disperse and dilute pollution events.

The poor grades reflect the extreme wet weather conditions of recent La Niña years impacting water quality at the swim sites. As beach grades are a long-term assessment of water quality based on the most recent 100 water samples, those collected during La Niña conditions from late 2020 until mid-2022, are also included in the assessment and continue to influence the results.

Swimming should be avoided during and for up to 3 days following light rainfall at all freshwater swimming sites, or if there are signs of pollution such as discoloured water, odours or floating debris.



Sampling sites and Beach Suitability Grades in Western Sydney (Blue Mountains)

Megalong Creek

Beach grade:



Megalong Creek swim site is a group of pools along a 150 m stretch of Megalong Creek, adjacent to Old Ford Camping Reserve.

The Beach Suitability Grade of Poor indicates microbial water quality is susceptible to faecal pollution, particularly after rainfall and occasionally during dry weather conditions, with potential faecal contamination from upstream sources in the creek.

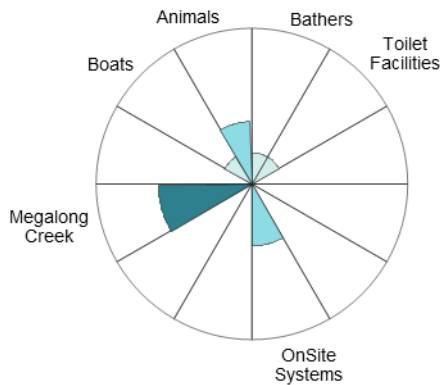
Enterococci levels increased with increasing rainfall, frequently exceeding the safe swimming limit across all rainfall categories.

See 'How to read this report' for key to map.

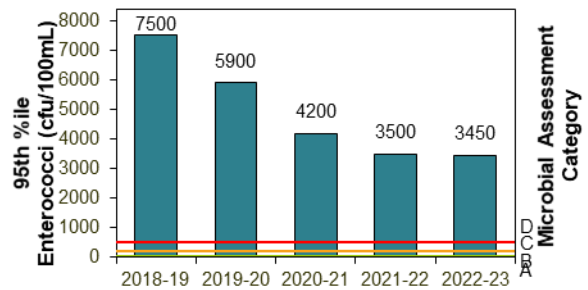
The site has been monitored since 2013.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Freshwater	Nov 2018 to Mar 2023	22%	83	Stable

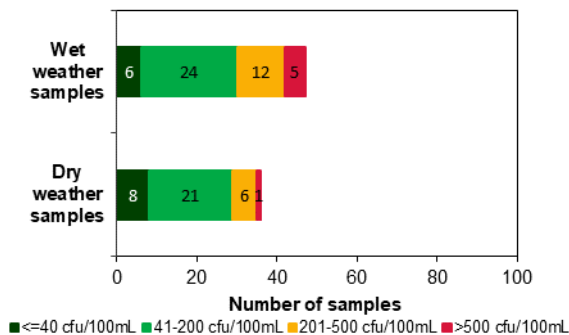
Sanitary inspection: Moderate



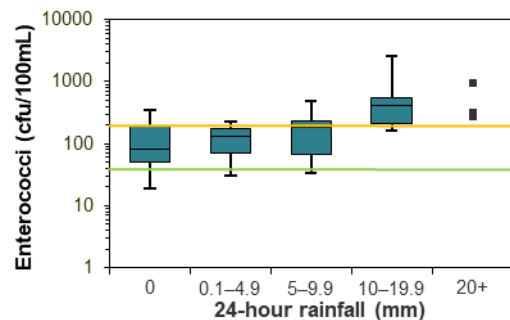
Microbial Assessment Category: D



Dry and wet weather water quality



Water quality in response to rainfall



Yosemite Creek – Minnehaha Falls

Beach grade: VP



Yosemite Creek – Minnehaha Falls swim site is a small, shallow pool in Yosemite Creek, at the edge of the Blue Mountains National Park and is near the popular Minnehaha Falls.

The Beach Suitability Grade of Very Poor indicates microbial water quality is very susceptible to faecal pollution with many potential sources of faecal contamination.

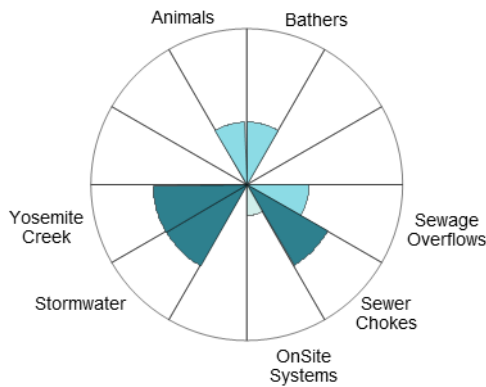
Enterococci levels increased with increasing rainfall, regularly exceeding the safe swimming limit across all rainfall categories.

See ‘How to read this report’ for key to map.

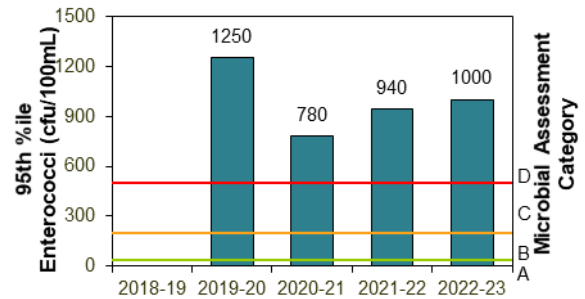
The site has been monitored since 2019.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Freshwater	Oct 2019 to Mar 2023	59%	69	Stable

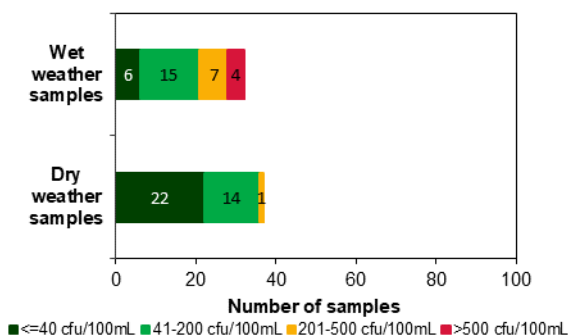
Sanitary inspection: High



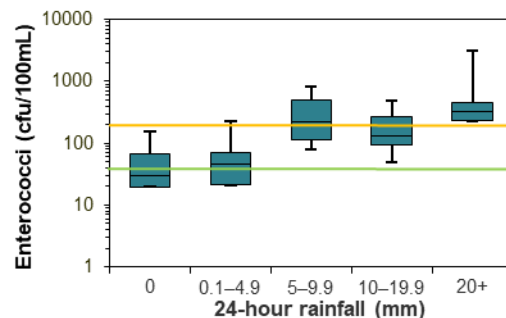
Microbial Assessment Category: D



Dry and wet weather water quality

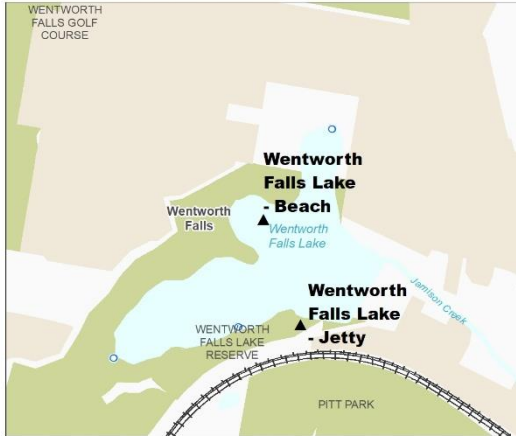


Water quality in response to rainfall



Wentworth Falls Lake – Jetty

Beach grade:



Wentworth Falls Lake – Jetty swim site is located adjacent to a small jetty and is a broad shallow area on the south-eastern shore of Wentworth Falls Lake, next to a playground and reserve.

The Beach Suitability Grade of Poor indicates microbial water quality is susceptible to faecal pollution, particularly after rainfall and occasionally during dry weather conditions, with potential faecal contamination from stormwater and animals.

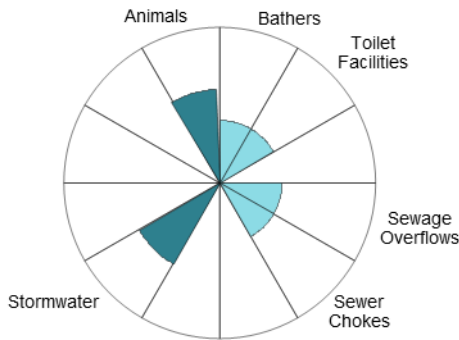
Enterococci levels increased with increasing rainfall, often exceeding the safe swimming limit across all rainfall categories.

The site has been monitored since 2013.

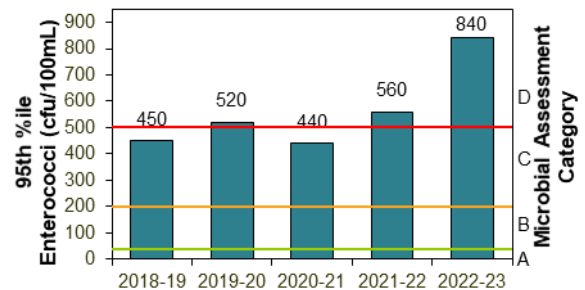
See 'How to read this report' for key to map.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Freshwater	Nov 2018 to Mar 2023	58%	89	Stable

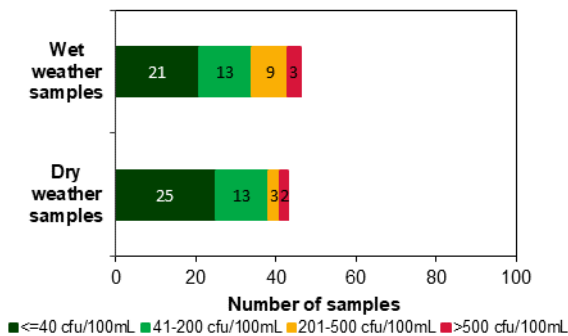
Sanitary inspection: Moderate



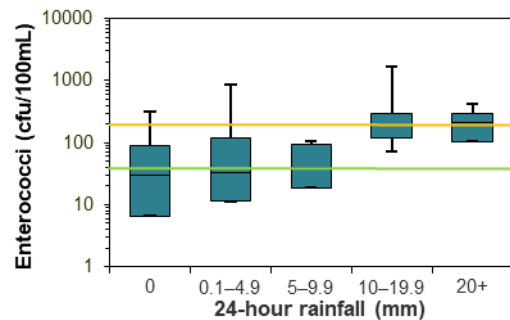
Microbial Assessment Category: D



Dry and wet weather water quality

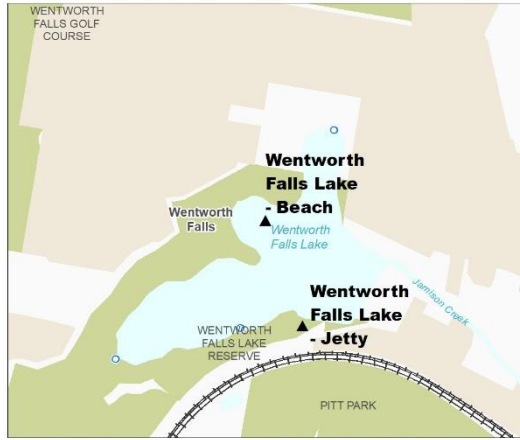


Water quality in response to rainfall



Wentworth Falls Lake - Beach

Beach grade: P



See 'How to read this report' for key to map.

Wentworth Falls Lake – Beach swim site is shallow and located in a small cleared area on the northern shore of Wentworth Falls Lake. Access is along a small trail through adjoining bushland.

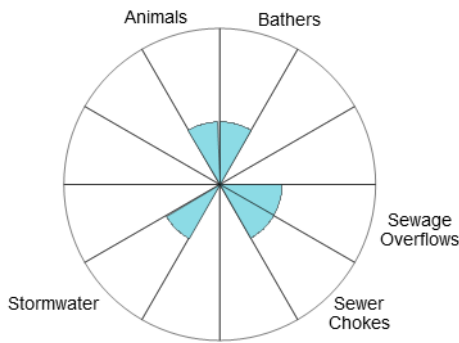
The Beach Suitability Grade of Poor indicates microbial water quality is susceptible to faecal pollution, particularly after rainfall and occasionally during dry weather conditions, with potential faecal contamination from stormwater and animals.

Enterococci levels increased with increasing rainfall, occasionally exceeding the safe swimming limit after light rain and frequently after 10 mm or more of rain.

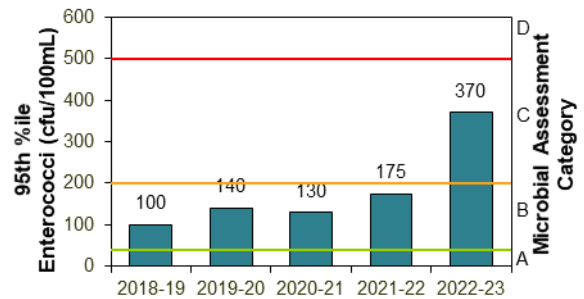
The site has been monitored since 2014.

Site type	Assessment period	Dry weather samples suitable for swimming	Water samples	Beach grade status
Freshwater	Nov 2018 to Mar 2023	77%	87	Declined ↓

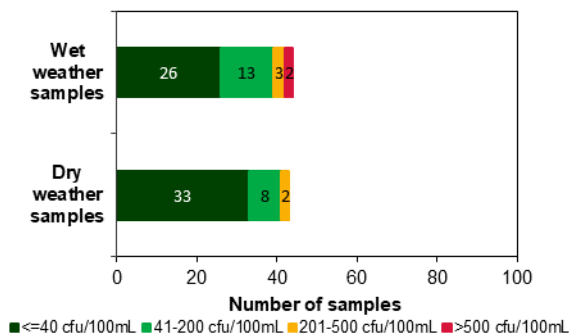
Sanitary inspection: Moderate



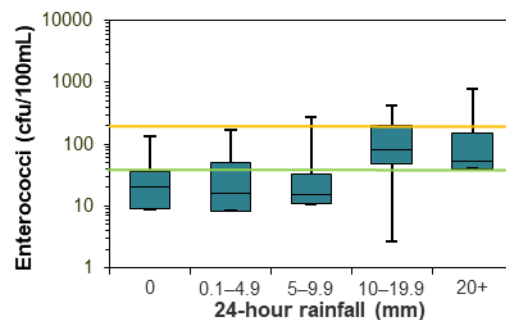
Microbial Assessment Category: C



Dry and wet weather water quality



Water quality in response to rainfall



How to read this report

Beach Suitability Grades

Beach Suitability Grades provide an assessment of the suitability of a swimming location for recreation over time and are based on a combination of sanitary inspection (identification and rating of potential pollution sources at a beach) and microbial assessment (water quality measurements gathered over previous years). There are 5 grades ranging from Very Good to Very Poor:

Very Good

Location has generally excellent microbial water quality and very few potential sources of faecal pollution. Water is considered suitable for swimming almost all of the time

Good

Location has generally good microbial water quality and water is considered suitable for swimming most of the time. Swimming should be avoided during and for up to one day following heavy rain at ocean beaches and up to 3 days at estuarine sites

Fair

Microbial water quality is generally suitable for swimming, but because of the presence of significant sources of faecal contamination, extra care should be taken to avoid swimming during and for up to 3 days following rainfall or if there are signs of pollution such as discoloured water or odour or debris in the water

Poor

Location is susceptible to faecal pollution and microbial water quality is not always suitable for swimming. During dry weather conditions, ensure that the swimming location is free of signs of pollution, such as discoloured water, odour or debris in the water, and avoid swimming at all times during and for up to 3 days following rainfall

Very Poor

Location is very susceptible to faecal pollution and microbial water quality may often be unsuitable for swimming. It is generally recommended to avoid swimming at these sites almost all of the time

Some of the Beach Suitability Grades in this report are **provisional**, as the information required for the analysis is incomplete due to limited bacterial data or limited information on potential pollution sources in a beach catchment.

The guidelines

The National Health and Medical Research Council’s guidelines for managing risks in recreational water (NHMRC 2008) were adopted for use in New South Wales in May 2009. These guidelines have been adopted in all Australian states and territories and are supported by guidance notes developed by the Department of Health Western Australia (WA Department of Health 2007).

Enterococci

The national guidelines advocate the use of enterococci as the single preferred faecal indicator in recreational waters.

These bacteria are excreted in faeces and are rarely present in unpolluted waters. Enterococci have shown a clear dose–response relationship to disease outcomes in marine waters in the northern hemisphere. In accordance with the guidelines, Beachwatch tests for enterococci only. The enterococci density in water samples is analysed in the laboratory using method AS/NZS 4276.9:2007 (Standards Australia 2007).

Enterococci are measured in colony forming units per 100 mL of sample (cfu/100 mL).

Beach Suitability Grades are determined by using the following matrix:

		Microbial Assessment Category			
		A	B	C	D
Sanitary Inspection Category	Very Low	Very Good	Very Good	Follow Up	Follow Up
	Low	Very Good	Good	Follow Up	Follow Up
	Moderate	Good	Good	Poor	Poor
	High	Good	Fair	Poor	Very Poor
	Very High	Follow Up	Fair	Poor	Very Poor

* Follow up occurs when sanitary inspection and water quality data produce potentially incongruent results; further assessment will be required.

Using the Beach Suitability Grade classification matrix, sites assigned a moderate Sanitary Inspection Category can only be rated as Good or Poor, with no option of Fair grades. This can create the impression of a large change in water quality when in fact there need only be a slight increase in bacterial counts to push it over the threshold, with no significant increase in the risk to public health.

Microbial Assessment Category (MAC)

There are 4 Microbial Assessment Categories (A to D) and these are determined from the 95th percentile of an enterococci dataset of at least 100 data points. Each MAC is associated with a risk of illness determined from epidemiological studies. The risks of illness shown below are not those associated with a single data point but are the overall risk of illness associated with an enterococci dataset with that 95th percentile (Wyer et al. 1999).

Risk of illness associated with Microbial Assessment Categories

Category	Enterococci (cfu/100 mL)	Illness risk*
A	≤40	GI illness risk: <1% AFR illness risk: <0.3%
B	41–200	GI illness risk: 1–5% AFR illness risk: 0.3–1.9%
C	201–500	GI illness risk: >5–10% AFR illness risk: >1.9–3.9%
D	>500	GI illness risk: >10% AFR illness risk: >3.9%

* GI = gastrointestinal illness; AFR = acute fever and rash

Calculating the MAC

The 95th percentile is a useful statistic for summarising the distribution of enterococci data at a site. It embodies elements of both the location of the distribution (how high/low the enterococci counts are) and the scale of the distribution (how variable the enterococci counts are).

The 95th percentile values for each of the 4 Microbial Assessment Categories were determined by the World

Health Organization using enterococci data collected from swimming locations across Europe. These values will represent different probabilities of illness if the distribution of enterococci data from swimming locations in New South Wales differs from the European distribution.

In recognition of this issue, Dr Richard Lugg (Department of Health, Western Australia) has developed a Microsoft® Excel tool for calculating a modified 95th percentile that takes into account the distribution of data. The WA Department of Health recommends a minimum of 65 samples, collected from a particular site over 5 consecutive years, to provide sufficient confidence and reliability in the 95th percentile data output. This tool has been used to calculate the 95th percentile values presented in this report and has been adopted for use by other state governments in Australia.

The tool can be downloaded from the WA Government's 'Environmental waters publications' webpage, under *Forms and templates*.

Sanitary Inspection Category (SIC)

More information about the **sanitary inspection** process is available in the Beachwatch Protocol for assessment and management of microbial risks in recreational waters, found on the department's website.

The aim of a sanitary inspection is to identify all sources of faecal contamination that could affect a swimming location and assess the risk to public health posed by these sources. It is an assessment of the likelihood of bacterial contamination from identified pollution sources and should, to some degree, correlate with the bacterial water quality results obtained from sampling.

The main sources of faecal contamination considered in the sanitary inspection are: bathers, toilet facilities, wastewater treatment plants (WWTPs), sewage overflows, sewer chokes, onsite systems, wastewater re-use, stormwater, river discharge, lagoons, boats and animals.

Rivers, lakes and estuaries themselves can be potential sources of faecal contamination to sites located in these waterbodies, with contaminated water from upstream or surrounding areas impacting water quality at the swimming location. This source is captured in river discharge or lagoon category, and shown as the waterbody in the sanitary inspection charts.

Through the sanitary inspection process, beaches are categorised to reflect the overall likelihood of faecal contamination. There are 5 categories: Very Low, Low, Moderate, High and Very High.



Stormwater drain flow
Photo: Beachwatch/DPE

Stormwater in urban areas often contains sewage from leakages, overflows or sewer chokes when the sewerage system fails.

Sewage overflows can occur in wet weather when the network has exceeded capacity due to rainwater entering the system. The mix of sewage and rainwater discharges from designated overflow points and drains to waterways, usually via the stormwater system. Overflows from the sewerage system can also occur in dry weather due to mechanical failure or power outage.

Sewer chokes occur due to blockages in the pipes usually due to tree roots, oil, grease or debris. This causes sewage to back up and escape via sewer inspection points, designed overflow structures or cracks in the pipes, then drain to waterways, usually via the stormwater system.

Explanation of tables

Each region contains tables listing all monitored swimming sites including site type, beach grade and change in grade from the previous year.

The following symbols are used to show the change in beach grade from the previous year:

- Stable
- ↑ Improved
- ↓ Declined

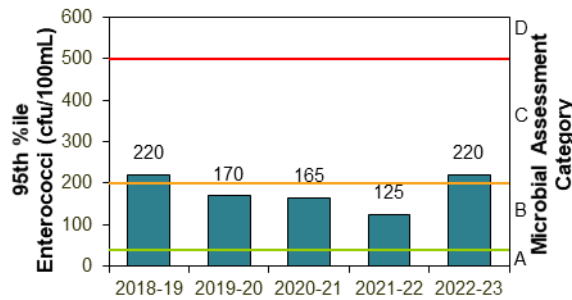
A provisional grade indicates the assessment is based on limited data collected during the assessment period and should not be compared to the beach grade from the previous year.

Explanation of graphs, charts, and information bars on beach pages

Microbial Assessment Category (MAC) chart

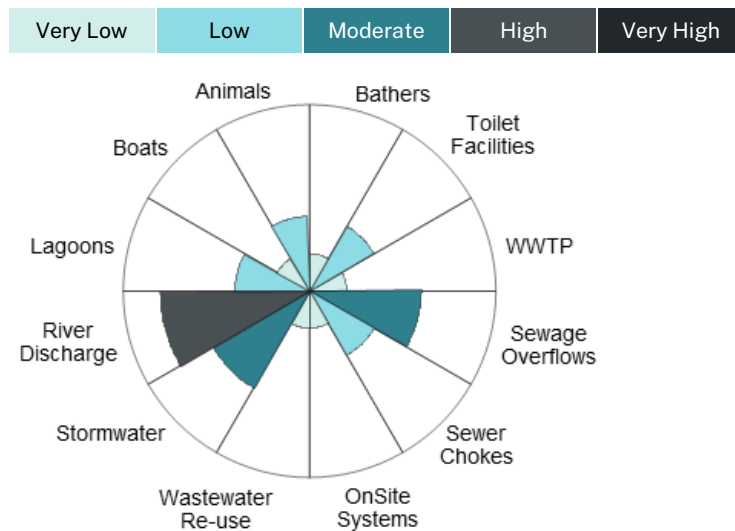
On each beach page, the MACs for the last 5 years are displayed on a simple bar chart. The MAC for the current year is based on enterococci data collected during the assessment period. The bars are labelled with the 95th

percentile value for each year and the thresholds dividing the A, B, C and D categories are marked in green, amber and red for reference.



Sanitary Inspection Category (SIC) chart

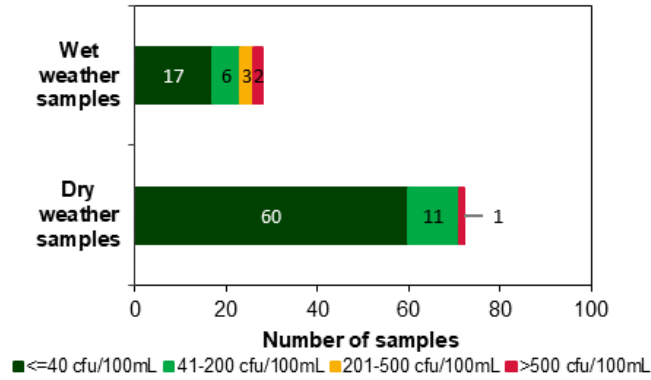
The results of the sanitary inspection for each swimming location are presented in a radar pie chart. The chart shows the likelihood that each identified pollution source will contribute to faecal contamination at a swimming site, as indicated by the size and colour of the segment, ranging from very low (lightest colour) to very high (darkest colour) as shown below. The sum of these contributions is the overall likelihood, or Sanitary Inspection Category.



Wet and dry weather water quality chart

Enterococci levels in wet and dry weather conditions are presented for each swimming location as a bar graph. All data collected during the assessment period is included in the analysis. Dry weather is defined as no rainfall recorded in the previous 24 hours. Each bar is colour coded to show the number of enterococci results up to 40 cfu/100 mL, between 41 and 200 cfu/100 mL, between

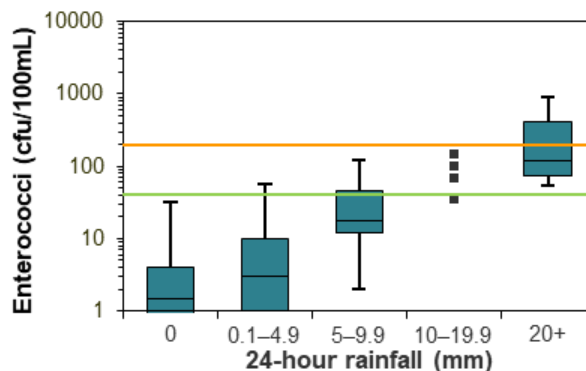
201 and 500 cfu/100 mL and greater than 500 cfu/100 mL. These categories reflect the Microbial Assessment Category thresholds and are coloured on the graph as dark green, light green, amber and red respectively.



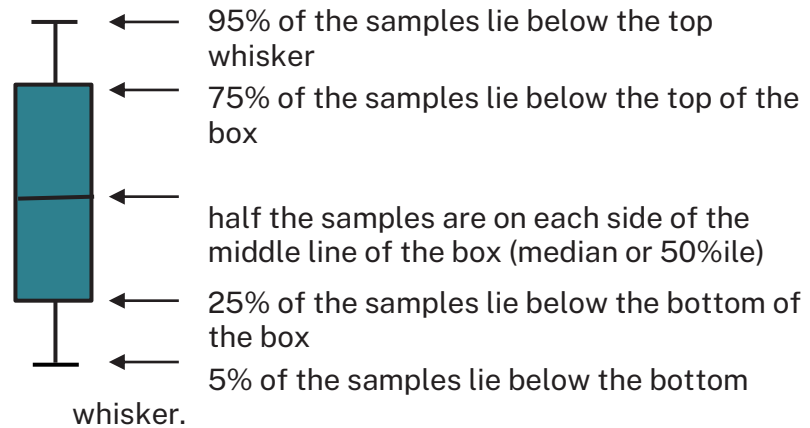
It is expected that swimming sites with lower levels of flushing will show some elevated bacterial results in dry weather samples (no rainfall in the previous 24 hours) due to the longer time needed to recover from a rainfall event. At some estuarine and lake/lagoon swimming locations the impacts of stormwater pollution on beach water quality may be detected up to 3 days after rainfall.

Water quality in response to rainfall

Trends in enterococci levels in response to rainfall are shown using a box plot. For reference, enterococci levels of 40 cfu/100 mL and 200 cfu/100 mL are indicated with a green and orange line, respectively. The 40 cfu/100 mL level is referred to as the ‘safe swimming limit’. The enterococci data were obtained from the last 5 years of monitoring. Rainfall data were obtained from rain gauges situated close to the sample site and are 24-hour totals to 9 am on the day of sampling. If there are fewer than 5 enterococci data points in a rainfall category, individual data points are presented instead of a box plot. At sites where many results are below the detection limit (1 cfu/100 mL), only the upper portion of the box plots will be visible.



Each part of the box plot represents a significant percentile value of the sample population:



Information bars

Information bars on each beach page provide a summary of details about the swimming site.
















The **assessment period** shows the timeframe in which the water samples were collected. The NHMRC guidelines state beach grades should be determined from the most recent 100 water quality results collected within a 5-year period. The assessment period varies between sites depending on sampling frequency.

Dry weather samples suitable for swimming (**dry weather swimmability**) shows the percentage of water samples with enterococci levels below 40 cfu/100 mL. Dry weather is defined as no rainfall in the previous 24 hours.

Swimming sites with lower levels of flushing often have a lower percentage of dry weather samples within the safe swimming limit due to the impacts of rainfall detected up to 3 days after the event.

Explanation of maps

A map of individual swimming locations is presented on each beach page. The scale of the maps is 1:10,000. Each map shows the location of the sampling site, land use and features such as surf lifesaving clubs. Potential pollution sources such as stormwater drains, sewage pumping stations, wastewater treatment plants, lagoons, rivers and creeks, are shown where accurate data is held.

Key to maps	
	Sampling Site
	Surf Life Saving Club
	Wastewater Treatment Plant
	Sewage Pumping Station
	Sewage Overflow
	Stormwater Drain
	Water
	Baths
	National Park/Reserve/ Other Park
	Built-up Area
	Sand
	Roads
	Major Roads
	Baths – Netted Area
	Breakwater/Wharf

References

NHMRC (2008) *Guidelines for managing risks in recreational water*, National Health and Medical Research Council, Australian Government Publishing Service, Canberra, ACT.

Standards Australia (2007) *AS/NZS 4276.9:2007, Water microbiology Method 9: Enterococci – Membrane filtration method (ISO 7899-2:2000, MOD)*, Standards Australia International Ltd, Sydney and Standards New Zealand, Wellington.

WA Department of Health (2007), *Microbial quality of recreational water guidance notes in support of chapter 5 of the National Health and Medical Research Council guidelines for managing risks in recreational water, 2006*, Department of Health, Western Australia and The University of Western Australia, October 2007, ww2.health.wa.gov.au/Articles/A_E/Environmental-waters-publications, accessed 23/06/22.

Wyer MD, Kay D, Fleisher JM, Salmon RL, Jones F, Godfree AF, Jackson G and Rogers A (1999) 'An experimental health related classification for marine waters', *Water Research*, 33(3):715–722.

More information

- [Beachwatch NSW on Twitter](#)
- [Beachwatch NSW on Facebook](#)
- [Beachwatch webpage](#)
- [Coastal management program progress](#)
- [Sanitary inspection of beaches](#)
- [Subscribe to daily pollution forecast emails](#)
- [Towards Safer Swimming: Rose Bay](#)
- [WA Government environmental water publications](#)