

Recreational Water Quality Annual Report

Reporting period 1 July 2018 – 30 June 2019

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Recreational Water Quality Report 2018-2019

I. INTRODUCTION

Recreational activities involving contact with bodies of water are very popular in Tasmania, particularly during summer.

While Tasmania has an extensive coastline and many inland water bodies, many recreational areas are relatively inaccessible.

The most widely used recreational waters are the more accessible coastal beaches, freshwater rivers and lakes, especially those close to urban areas with good road access.

Publically accessible swimming pools and spa pools are also popular.

The *Recreational Water Quality Guidelines 2007* (the Guidelines) issued under the *Public Health Act 1997*, require councils to regularly monitor water quality at recognised recreational sites and to respond to identified risks to public health. These sites are defined as sites that are used regularly by a relatively large number of people, and include all public swimming pools and public spa pools.

Councils must provide an annual report to the Department of Health (DoH) on their activities relating to recreational water quality monitoring.

Information provided in council annual reports is summarised in the *Recreational Water Quality Annual Report*.

This report provides information to the community on water quality at recognised recreational sites in Tasmania.

For further information about water quality at particular sites, contact the relevant council Environmental Health Officer (EHO), whose contact details are provided in this report.

2. BACKGROUND

2.1 Health Risks from Swimming

Many natural bodies of water are at risk of contamination. Water contaminated by sewage and animal waste often contains a range of pathogenic micro-organisms such as viruses, bacteria and protozoa.

These organisms pose a risk to human health when the water is used for recreational activities like swimming and other water contact activities. This is because during these activities there is a risk that water could be swallowed, or inhaled.

Contaminated water may also come into contact with ears, nasal passages, mucous membranes and cuts in the skin, allowing disease-causing organisms to enter the body.

In most cases, any health effects from exposure to contaminated water are relatively minor and short-lived, such as skin rashes and ear, eye and gastrointestinal infections.

However there is potential for more serious illness, including invasive or complicated gastrointestinal infections, particularly among vulnerable persons (NHMRC 2008).

Public swimming and spa pools are at lower risk from significant contamination with animal-derived pathogens. Routine management of water quality in pools and spas will reduce the risk posed by human-derived contamination (such as *Cryptosporidium*, and enteric viruses) and environmental contaminants (such as *Legionella*), but regular monitoring is still required.

2.2 Roles and Responsibilities of Agencies

Local Tasmanian Councils, the Department of Primary Industries, Parks, Water and Environment and the Department of Health all have responsibilities for managing recreational water and protecting human health where the public use such waters.

It is not practical for all potential recreational waters in a jurisdiction to be regularly monitored.

It is therefore necessary and appropriate to focus on particular areas, such as beaches, lakes or rivers that are used regularly, by a large number of people, for primary contact purposes. Primary contact refers to an activity in which the whole body or face and trunk are immersed or the face is frequently wet by spray. These areas must be monitored in line with these guidelines.

Public events involving primary contact activities have also become more popular in recent years, including school triathlons and other community based swimming events. Where these sites are not already monitored, the controlling authority should consider doing so.

The Derwent Estuary Program (DEP) and the Tamar and Estuary and Esk Rivers Program (TEER Program) work collaboratively with councils and other stakeholders to identify sources of contamination and implement strategies to improve water quality. They also facilitate community messaging consistent with these guidelines, advising of water quality at primary contact sites.

If there is any doubt about the need for monitoring, the advice of the Director of Public Health should be sought.

In accordance with Section 128 of the *Public Health Act 1997*:

An agency, public authority or person managing or in control of water must:

- a) *manage the water in a manner that does not pose a threat to public health; and*
- b) *on becoming aware that the quality of the water is, or is likely to become, a threat to public health, notify the Director in accordance with any relevant Guidelines.*

Monitoring should be undertaken in line with the following procedures:

1. Take samples of natural recreational water bodies at the beginning of the swimming season and thereafter weekly during the season. This includes December, January, February and March, unless other arrangements are approved by the Director of Public Health.
2. Take samples from all public swimming pools and public spa pools on a monthly basis or, if directed in writing by an Authorised Officer, more frequently.
3. Conduct additional sampling whenever a threat to public health is suspected.
4. Each Controlling Authority - the agency, public authority or person managing or in control of water, shall consult the Director on the proposed sampling program to be used when a threat to public health is suspected.
5. At the end of each swimming season the Controlling Authority is required to prepare a report on recreational water quality management for presentation to the Director by 30 September each year.

These reporting requirements are detailed in Appendix A of the Guidelines.

They include the name and location of the natural recreational water body, date and type of sampling conducted, results of sampling and interpretation of results in terms of health risks associated with the use of that water.

Details of public swimming pools and public spa pools are also required, including their name and location, date and type of sampling, details of any pool and spa closures and subsequent corrective actions.

3. AUSTRALIAN GUIDELINES FOR RECREATIONAL USE OF WATER

The National Health and Medical Research Council (NH&MRC) have produced *Guidelines for Managing Risks in Recreational Water*, 2008.

These guidelines were developed to provide information to the public and government agencies on the suitability of natural waters for recreational use.

While they do not apply to public swimming pool and spa water quality, the national guidelines are currently under review and these sites may be included in future revisions.

The national guidelines are not mandatory, but provide a benchmark for water quality to enable the safe use of natural recreational waters.

The classification of recreational water environments into water quality categories in the national guidelines is based on combining the results of sanitary inspection and water quality assessment.

The *Tasmanian Recreational Water Quality Guidelines 2007* have combined water quality categories A and B (detailed in the national guidelines) into a single Good Water Quality indicator, category C into a Moderate Water Quality indicator and category D into a Poor Water Quality indicator.

The *Recreational Water Quality Guidelines 2007* are also currently under review.

4. COUNCIL RECREATIONAL WATER QUALITY MANAGEMENT ACTIVITIES

Table 1 – Council Recreational Water Quality Management Activities

Council	Location	Site / Water Body	Type of Sampling	Sampling Frequency	Results	Comments / Corrective Action
4.1 Break O'Day Council Contact Break O'Day Council: 6376 7900	1. Beauty Bay, St Helens 2. Grants Lagoon, Binalong Bay 3. Henderson Lagoon, Falmouth 4. Scamander River Mouth, Scamander 5. Wrinklers Lagoon, Scamander 6. Yarmouth Creek, Beaumaris	Natural recreational water body sampling sites	Bacteriological Enterococci	Monthly from December to March. Council is required to submit an application to vary sampling frequency for consideration by the Director of Public Health, as sampling frequency is currently lower than the weekly requirement.	Most sites were compliant with Guideline values. Non-compliant results occurred at Wrinklers Lagoon in December and Yarmouth Creek in February.	Council conducted sanitary surveys of the sites where non-compliant results occurred, however resampling was not undertaken.
	1. Bayside Inn, St Helens, pool 2. Blue Seas Holiday Villas, pool, Scamander 3. Scamander Beach Hotel Motel, pool 4. St Helens District High School, pool	Pools and Spas	Bacteriological Heterotrophic Plate Count Thermotolerant coliforms/ <i>E.coli</i> <i>Pseudomonas aeruginosa</i>	Sampling was conducted monthly at sites 1, 2 and 4 when open. Sampling frequency varied from one to three	Site 4 was closed in March following receipt of two noncompliant results. Corrective action was taken and following receipt of two further compliant sample results the pool was reopened.	

Council	Location	Site / Water Body	Type of Sampling	Sampling Frequency	Results	Comments / Corrective Action
	5. St Marys District High School, pool 6. Tidal Waters, St Helens, pool 7. White Sands Estate, Ironhouse Point, 1 pool, 1 spa			occasions at other sites. Council is required to sample all public pools and public spas monthly when open.		
4.2 Brighton Council Contact: Brent Bastian 6268 7029	1. Jetty Road, Old Beach	Natural recreational water body sampling sites	Bacteriological Enterococci	Weekly from December to March.	The site was compliant with Guideline values, with the exception of one occasion in December and one occasion in January. Non-compliances have been attributed to an increase in the frequency of members of the public feeding birds at the site. The site is recognised as used for secondary contact activities.	Permanent signs are in place advising against primary contact activities.
	1. Brighton Swim centre	Pools and Spas	Bacteriological Heterotrophic Plate Count Thermotolerant coliforms/ <i>E.coli</i> <i>Pseudomonas aeruginosa</i>	Monthly.	Results were compliant with Guideline values.	No corrective actions were required.
4.3 Burnie Council Contact: Sandy Loring 6430 5789	1. Cooee Beach, east end 2. Cooee Beach, west end 3. West Beach, east end 4. West Beach, west end	Natural recreational water body sampling sites	Bacteriological Enterococci	Fortnightly. Council is required to submit an	Sites were compliant with Guideline values.	

Council	Location	Site / Water Body	Type of Sampling	Sampling Frequency	Results	Comments / Corrective Action
	5. South Burnie, yacht club			application to vary sampling frequency for consideration by the Director of Public Health, as sampling frequency is currently lower than the weekly requirement.		
	<ol style="list-style-type: none"> 1. Burnie Aquatic Centre, Burnie, 2 pools 2. Healthglo Fitness & Leisure, Burnie, pool 3. North-west Regional Hospital, hydrotherapy pool 4. Private Pool Hire, Camdale, pool 5. TLC Aquatic, West Mooreville Road, Burnie, pool 6. Taswim, Burnie, pool 7. School of Special Education, Burnie 	Pools and Spas	Bacteriological Heterotrophic Plate Count Thermotolerant coliforms/ <i>E.coli</i> <i>Pseudomonas aeruginosa</i>	Monthly.	Results were compliant with Guideline values, with the exception of four samples.	Corrective actions were taken in response to noncompliant results. Resampling returned compliant results.
4.4 Central Coast Council Contact: Bill Hyndes 6429 8936	<ol style="list-style-type: none"> 1. Bannons Park, Gunns Plains, Level River 2. Johnsons Beach, Penguin Caravan Park 3. Main Beach, Penguin 4. Main Beach, Ulverstone, Surf Club 	Natural recreational water body sampling sites	Bacteriological Enterococci	Weekly.	Ocean beach sites, Sites 2 – 8 were generally compliant with Guideline values. Exceptions were a non-compliant sample result in early February at Site 6 following heavy rain and non-compliant results	Water quality was generally compliant at most sites, with non-compliant results at Sites 6 and 7 attributed to rainfall/stormwater on a single occasion in February.

Council	Location	Site / Water Body	Type of Sampling	Sampling Frequency	Results	Comments / Corrective Action
	5. Midway Point, Penguin 6. Picnic Point Beach, West Ulverstone 7. Preservation Bay, Penguin, Surf Club 8. Turners Beach 9. Ulverstine Jetty, Leven River				at most sites in late March. Freshwater samples from Sites 1 were non-compliant on three occasions. Site 9 was added to the monitoring program in March as part of a saniarty survey of the Leven River.	Non-compliant results for all sites, with the exception of Site 5 in late March was attributed to a very high tide and sewage discharge from the nearby sewage outfall, that may have been swept back towards the beaches. Results of sanitary survey sampling at Site 9 showed higher levels of enterococci downstream from Bannons Park and may have been influenced by runoff from the more densely populated Ulverstone area and/or tidal action combined with impact of the nearby sewage outfall point.
	1. Dolphinius Aquatics, Turners Beach, pool 2. East Ulverstone Indoor Pool, pool 3. Mount Saint Vincent, Ulverstone, hydrotherapy pool 4. Ulverstone Water Slide, Ulverstone, pool	Pools and Spas	Bacteriological Heterotrophic Plate Count Thermotolerant coliforms/ <i>E.coli</i> <i>Pseudomonas aeruginosa</i>	Limited sampling undertaken.	Results were compliant with Guideline values. Site 3 was sampled monthly, Site 4 sampled twice and Sites 1 and 2 were sampled once.	No corredctive actions were required. Infrequenet sampling was attributed to a lack of staff availablilty. Council has indicated an improved sampling regime will be implemented for 2019-2020.
4.5 Central Highlands Council	1. Derwent River, Lake Meadowbank 2. Wayatinah Lagoon	Natural recreational water body sampling sites	Bacteriological Enterococci	Sampling was conducted at Site 1 on two occasions and	Results of sampling were not reported. Council has commented that Sites 1 and 2 were	The occurrence of bushfires in the region impacted on the number of sites sampled, with

Council	Location	Site / Water Body	Type of Sampling	Sampling Frequency	Results	Comments / Corrective Action
Contact: Bev Armstrong 6259 5503				Site 2 on one occasion.	compliant with Guideline values.	fewer sites sampled than previous years. Permanent 'no swimming' signs are in place at a number of sites where, in previous years, sampling has indicated poor water quality.
	1. Bothwell Swimming Pool, Bothwell	Pools and Spas		Monthly when open.	Results were compliant with Guideline values.	No corrective actions were required.
4.6 Circular Head Council Contact: Emily Neal 6452 4842	1. Crayfish Creek 2. Detention River 3. Godfreys Beach 4. Tatlows Beach	Natural recreational water body sampling sites	Bacteriological Enterococci	Weekly.	Sites 3 and 4 were compliant with Guideline values. Guideline values were exceeded on three occasions at Site 1 and on two occasions at Site 2.	Permanent signs remain in place at Sites 1 and 2 advising against primary contact activities at these sites. This is based on a history of noncompliant results for these sites in previous years and the current season.
	1. Circular Head Indoor Recreation and Leisure (SWIRL), Smithton, 3 pools 2. Tall Timbers, Smithton, 1 pool 3. Forest primary School, Forest, 1 pool	Pools and Spas	Bacteriological Heterotrophic Plate Count Thermotolerant coliforms/ <i>E.coli</i> <i>Pseudomonas aeruginosa</i> .	Monthly	Results were compliant with Guideline values.	No corrective actions were required.
4.7 Clarence City Council Contact: Scott Edwards 6217 9573	1. Bellerive Beach 2. Howrah Beach East 3. Howrah Beach Middle, Salacia Ave 4. Howrah Beach West, Silwood Ave	Natural recreational water body sampling sites	Bacteriological Enterococci	Weekly from December to March and monthly during other months for	Water quality at sites 1, 2, 4 and 5 have been graded as good while Site 3 was downgraded to Fair. Geilston Bay, Lindisfarne Bay, Montagu Bay and	All recreational water sites were considered suitable for primary contact. Council continues to fund investigative works

Council	Location	Site / Water Body	Type of Sampling	Sampling Frequency	Results	Comments / Corrective Action
	5. Little Howrah Beach 6. Lauderdale Beach			Sites 1- 5. Site 6 was sampled on one occasion.	Kangaroo Bay are considered environmental sites and are also monitored routinely by the DEP. Results above Guideline values for Sites 1, 3 and 4 in mid-December and sites 4 and 5 in late March have been attributed to stormwater discharge into the Derwent Estuary following rainfall. Results above Guideline values in early January for Sites 1 and 3 and at Sites 2, 3 and 5 in mid-February occurred without rainfall recorded in the preceding 72 hours and indicate the likelihood of other sources of Enterococci.	throughout the stormwater network and work collaboratively with TasWater and the DEP to identify and upgrade problematic areas such as these sites. Council's Stormwater Management Plan for Howrah and Bellerive catcments has been completed and includes a range of recommendaitons to improve stormwater quality and establishing performance objectives.
	1. Barilla Thermal Springs, Cambridge, 1 spa 2. Clarence Aquatic Centre, Montagu Bay, 3 pools 3. Clarence Joint Therapy, Howrah, 1 pool, 4. Oceania Health and Fitness, Mornington, 1 hydro therapy pool, 1 pool 5. RAMADA, Seven Mile Beach, 1 pool, 1 spa	Pools and Spas	Bacteriological Heterotrophic Plate Count Thermotolerant coliforms/ <i>E.coli</i> <i>Pseudomonas aeruginosa</i> .	Monthly	Results were compliant with Guideline values, with the exception of one sample from three separate sites. Corective actions were untaken and resamples were compliant with Guidleine values. There were no pool or spa cloures.	Noncompliant results occurred on three occasions over two sites. On all occasions corrective action was taken and resampling returned compliant results.

Council	Location	Site / Water Body	Type of Sampling	Sampling Frequency	Results	Comments / Corrective Action
	<ul style="list-style-type: none"> 6. Richmond Caravan Park, Richmond, 1 pool 7. Sea Horse Swim Centre, Howrah, 1 pool 8. Shellz Swim Centre, Rokeby East, 1 pool 9. Steve's Swim School, Acton park, 1 pool, 1 spa 					
4.8 Derwent Valley Council Contact: Derwent Valley Council: 6261 8525	1. Fitzgerald Park Jetty, Derwent River, New Norfolk.	Natural recreational water body sampling sites	Bacteriological Enterococci	Weekly from December to March.	Results were compliant with Guideline values.	Water quality at this site was given a rating of good.
	<ul style="list-style-type: none"> 1. Bushy Park Swimming Pool, Glenora 2. New Norfolk Swimming Pool, 2 pools 3. Derwent Valley Indoor Swim Centre, New Norfolk, pool 	Pools and Spas	Bacteriological Heterotrophic Plate Count Thermotolerant coliforms/ <i>E.coli</i> <i>Pseudomonas aeruginosa</i>	Sampling was conducted on three occasions at Site 1 and monthly at Site 2 and 3.	Results were compliant with Guideline values.	No pools were closed during the swim season.
4.9 Devonport City Council Contact: Madeline McKinnell 6424 0545	<ul style="list-style-type: none"> 1. Back Beach 2. Bluff Beach 3. Coles Beach 4. East Devonport Beach 	Natural recreational water body sampling sites	Bacteriological Enterococci	Fortnightly from December to March.	Results were compliant with Guideline values with the exception of a single result for Site 3 in late January. Resampling at this site returned compliant results.	All sites were considered suitable for primary contact. A sanitary survey was conducted in response to the noncompliant result in January however no sources of contaminated were identified.
	<ul style="list-style-type: none"> 1. Barclay Motor Inn, Fenton St, pool 2. Croft, Croft Ave, Devonport, pool 3. Gordon Place, Devonport, pool 	Pools and Spas	Bacteriological Heterotrophic Plate Count Thermotolerant coliforms/ <i>E.coli</i>	Monthly from December to March.	Five samples exceeded Guideline values throughout the season.	Where results exceeded Guideline values corrective actions and resampling were undertaken. Sites 2 and 4 were closed once following two

Council	Location	Site / Water Body	Type of Sampling	Sampling Frequency	Results	Comments / Corrective Action
	<ul style="list-style-type: none"> 4. Lawrence Drive, Devonport, pool 5. Nixon St Primary School, Devonport, pool 6. Splash Aquatic Centre, Devonport , 2 hydrotherapy pools, 2 pools 		<i>Pseudomonas aeruginosa</i>			consecutive noncompliant sample results and reopened upon receipt of two compliant results.
4.10 Dorset Council Contact: Robert Masterman 6353 6575	1. Old Pier Beach	Natural recreational water body sampling sites	Bacteriological Enterococci	Generally weekly from December to March.	Results were compliant with Guideline values, with the exception of a single noncompliant result in mid-March. Resampling returned compliant results.	Site 1 was considered suitable for primary contact activities with the single noncompliant result attributed to the impacts of stormwater, following heavy rainfall.
	<ul style="list-style-type: none"> 1. Branxholm Pool, Branxholm 2. Lost Farm Wellness Centre Spa, Bridport, spa 3. Ringarooma Pool, Ringarooma 4. Scottsdale Pool, Scottsdale 5. Winnaleah Pool, Winnaleah 	Pools and Spas	Bacteriological Heterotrophic Plate Count Thermotolerant coliforms/ <i>E.coli</i> <i>Pseudomonas aeruginosa</i>	Monthly from December to March and when open. The exception to this was Site 2 where sampling was not conducted in some months.	Sites were compliant with Guideline values with the exception of two occasions at Site 1 and one occasion at Site 5.	Where sites were noncompliant, corrective actions and resampling were undertaken. No pools were closed during the swim season.
4.11 Flinders Island Council Contact: Jacqui Viney 6359 5005	<ul style="list-style-type: none"> 1. Allports Beach 2. Killicrankie Bay 3. Lady Barron 4. Whitemark 	Natural recreational water body sampling sites	Bacteriological Enterococci	Monthly from December to March.	All results provided were compliant with Guideline values.	While additional sampling at Lady Barron was reported that indicated contamination throughout the season, results were not provided. This has been attributed to the presence of decomposing

Council	Location	Site / Water Body	Type of Sampling	Sampling Frequency	Results	Comments / Corrective Action
						wildlife and/or the presence of aging septic systems in the area.
	No operating public swimming pools or spa pools were reported.					
4.12 George Town Council Contact: Patricia Stanwell 6382 8845	1. Lagoon Beach 2. Pilots Bay 3. Pipe Clay Bay 4. Weymouth 5. York Cove	Natural recreational water body sampling sites	Bacteriological Enterococci	Monthly from December to March.	Sites were compliant with Guideline values.	There was an improvement in water quality at Pipe Clay Bay this season as all samples complied with Guideline values. In previous years a number of results were noncompliant results at this site.
	1. George Town Swimming Pool	Pools and spas	Bacteriological Heterotrophic Plate Count Thermotolerant coliforms/ <i>E.coli</i> <i>Pseudomonas aeruginosa</i>	Monthly from December to February.	Results were compliant with Guideline values.	No corrective actions were required.
4.13 Glamorgan/Spring Bay Council Contact: Glamorgan Spring Bay Council: 6256 4777	1. East Shelly Beach, Orford 2. Harvey's Farm Road, Bicheno 3. Jubilee Beach, Swansea 4. Muirs Beach 5. Spring Beach, Orford 6. Waubs Beach, Bicheno	Natural recreational water body sampling sites	Bacteriological Enterococci	Monthly from December to February with the exception of Site 4 which was sampled weekly through to March.	Sites were compliant with Guideline values.	Sites were suitable for primary contact. Additional environmental sampling was undertaken by TasWater at 11 additional sites in the Coles Bay area, from Swanwick Bay to Parsons Cove. This was part of a broader sanitary survey of the area. While a number of samples exceeded

Council	Location	Site / Water Body	Type of Sampling	Sampling Frequency	Results	Comments / Corrective Action
						Guideline values these sites were not identified as recreational water sites by council.
	<ol style="list-style-type: none"> 1. Beachfront at Bicheno, pool 2. Bicheno By the Bay, pool 3. Eastcoaster Resort, 2 pools, 1 spa 4. Piermont Retreat, 1 pool 5. Saffire Freycinet, 4 pools 6. Swansea Beach Chalets, 1 pool, Bridge Street 7. Swansea Beach Chalets, 1 pool, Shaw Street 8. Wintersun Gardens Motel, pool 	Pools and spas	Bacteriological Heterotrophic Plate Count Thermotolerant coliforms/ <i>E.coli</i> <i>Pseudomonas aeruginosa</i>	Varied from monthly at some sites to one occasion at other sites.	Noncompliant results occurred on two occasions at Sites 3 and 5.	Corrective action was taken and resampling returned compliant results. No pools or spas were closed.
4.14 Glenorchy City Council Contact: Simone Salter 6216 6790	<ol style="list-style-type: none"> 1. Windermere Beach 1 2. Windermere Beach 2 	Natural recreational water body sampling site	Bacteriological Enterococci	Weekly from December to March.	Results were compliant with guideline values at both Windermere Beach sites. As in previous years environmental sites at Elwick Bay, Mona Bay Berriedale, Mona Bay Cameron Bay and Mona Jetty were also monitored. Guideline values were exceeded on one occasion at each of these sites. Faulknors Rivulet was also sampled this season as an environmental site, from late January to the end of March. All samples exceeded Guideline values.	Water quality was suitable for primary contact .Long term beach grading at Windermere Beach was downgraded from good to fair in 2017-2018 and remains in place.

Council	Location	Site / Water Body	Type of Sampling	Sampling Frequency	Results	Comments / Corrective Action
	<ol style="list-style-type: none"> 1. Glenorchy Swim Stars, pool 2. KGV Hydrotherapy Pool, pool 3. Mona Pool, Berriedale 4. One Care, Glenorchy, pool 5. Riverfront Motel & Villas, pool 6. Undine Pool, Rosetta 7. Waterfront Lodge, Lutana, pool 8. YMCA, 50 m pool 9. YMCA, wading pool 10. YMCA, Slide Pool 	Pools and spas	Bacteriological Heterotrophic Plate Count Thermotolerant coliforms/ <i>E.coli</i> <i>Pseudomonas aeruginosa</i>	Monthly from December to March.	Sites were compliant with Guideline values with the exception of one sample at Sites 1, 5, 9 and 10.	Where Guideline values were exceeded corrective actions and resampling were undertaken. No pools or spas were closed
4.15 Hobart (City of Hobart) Contact: Felicity Edwards 6238 2842	<ol style="list-style-type: none"> 1. Nutgrove Beach East 2. Nutgrove Beach Middle 3. Nutgrove Beach West 4. Little Sandy Bay Beach North 5. Little Sandy Bay beach South 6. Marieville Esplanade 7. Cornelian Bay 	Natural recreational water body sampling sites	Bacteriological Enterococci	Weekly from December to March.	Site 1 was compliant with Guideline values with the exception of one occasion in late March, Site 2 was noncompliant on four occasions throughout the season and Site 3 on three occasions. Site 4 and Site 5 were compliant with Guideline values with the exception of a single occasion in early December and late March respectively. Although not recognised swimming sites, Sites 6 and 7 are included in the monitoring program as environmental sites.	Resampling was conducted where noncompliances occurred and on all occasions returned compliant results. The long-term water grading has improved from poor to fair at Site 3 and is a significant achievement given this site has been graded as poor for over 10 years. This has been attributed to the ongoing collaborative work by council, TasWater and the Derwent Estuary Program in investigating and addressing sources of stormwater contamination.

Council	Location	Site / Water Body	Type of Sampling	Sampling Frequency	Results	Comments / Corrective Action
						<p>The long term beach grading at Site 1 has declined from good to fair and has been flagged for further stormwater investigations. Sites 4 and 5 have maintained a grading of good.</p> <p>Permanent signs are in place indicating long term beach grading at all sites. Signage is also in place at Marieville Esplanade and Cornelian Bay, warning of poor water quality.</p>
	<ol style="list-style-type: none"> 1. Bay View Villas, Poets Road, 1 pool 2. Doone Kennedy Hobart Aquatic Centre, Davies Avenue, 3 pools, 1 spa 3. Friends Health & Fitness, Elizabeth St, 1 pool, 1 spa 4. Hotel Grand Chancellor, Hobart, 1 pool 5. Ibis Styles Hobart, 1 pool 6. Jodi Harrison Swim Centre, New Town Road, 2 pools, 1 spa 7. Rydges Hotel, Argyle St, 1 pool 8. Salamanca Inn, Gladstone St, 1 pool, 1 spa 9. Savoy Baths, Elizabeth St, 1 pool, 2 spas 10. Star Fish Swim Centre, Stratton Ave, 1 pool 	Pools and Spas	Bacteriological Heterotrophic Plate Count Thermotolerant coliforms/ <i>E.coli</i> <i>Pseudomonas aeruginosa</i>	Monthly	A small number of samples were noncompliant across five sites throughout the sampling period.	<p>Where results were noncompliant council officers ensured corrective actions and resampling were undertaken to ensure compliance with Guideline values. All resamples complied with Guideline values with no pool closures required.</p> <p>Council issued two infringement notices to operators for failing to sample in accordance with the Guidelines.</p>

Council	Location	Site / Water Body	Type of Sampling	Sampling Frequency	Results	Comments / Corrective Action
	11. St Michaels Collegiate, Macquarie St, 1 pool 12. Wrest point, Sandy Bay Road, 1 pool, 1 spa					
4.16 Huon Valley Council Contact: Amigo Huber 6264 0354	No sites were sampled.	Natural recreational water body sampling sites	No sampling conducted.	No sampling conducted.	No sampling conducted.	Sampling was not undertaken as approval to cease sampling was obtained in 2012 from the Director of Public Health. Council continues to respond to complaints, issues or concerns the public may have regarding water quality. Permanent swimming advisory signs are in place at Dover Beach, Randalls Bay and Verona Sands advising the public of potential contamination, due to outfalls from nearby natural lagoons and stormwater, following rainfall events.
	1. Hastings Caves Pool 2. Huonville Swimming Pool 3. Port Huon Swimming Pool	Pools and Spas	Bacteriological (Heterotrophic Plate Count, Thermotolerant coliforms/ <i>E.coli</i> , <i>Pseudomonas aeruginosa</i>)	Monthly.	Noncompliant results occurred at one pool on two occasions. Resampling at this site returned noncompliant results.	Where results were noncompliant council officers ensured corrective actions and resampling were undertaken to ensure compliance with Guideline values. All resamples complied with Guideline values.

Council	Location	Site / Water Body	Type of Sampling	Sampling Frequency	Results	Comments / Corrective Action
4.17 Kentish Council Contact: Adam Gardner 6491 0200	1. Lake Barrington - Kentish Park 2. Lake Barrington - Rowing Course 3. Lake barrington – Wilmot Picnic Area	Natural recreational water body sampling sites	Bacteriological Enterococci	Monthly from November to April.	Sites were compliant with Guideline values.	
	1. Cradle Mountain Hotel, Cradle Mountain, I spa 2. Sheffield School Railton Campus, 1 pool 3. Silver Ridge Retreat, 1 pool 4. Peppers Lodge, Cradle Mountain – 2 spas	Pools and Spas	Bacteriological (Heterotrophic Plate Count, Thermotolerant coliforms/ <i>E.coli</i> , <i>Pseudomonas aeruginosa</i>).	Monthly when open.	A number of noncompliant results occurred throughout the season at one site.	Where noncompliant results occurred, corrective actions were undertaken. Further changes have been undertaken since the end of this sampling season at this site, with significant improvements in results of monitoring noted.
4.18 Kingborough Council Contact: Abyilene McGuire 6211 8240	1. Blackmans Bay Beach 2. Blackmans Bay Beach South 3. Kingston Beach (North) 4. Kingston Beach (Middle) 5. Kingston Beach (South) 6. Browns River 7. Taroon Beach 8. Hinsby Beach 9. Howden – Wingara Road 10. Snug Beach 11. Margate – Dru Point 12. Woodbridge-Silverwater Park 13. Conningham Beach 14. Tinderbox Beach 15. Middleton Beach 16. Nebraska Beach 17. Alonnah Beach 18. Quiet Corner 19. Adventure Bay Beach	Natural recreational water body sampling sites	Bacteriological Enterococci	Sites 1- 8 where sampled weekly, sites 9 - 15 monthly and sites 16 - 20 twice between December and March.	A number of samples from, Kingston Beach, Taroon Beach and Hinsby Beach were noncompliant with Guideline values for primary contact activities. Three public health advisories were issued for Site 3, one for Site 4 and one for Site 1. Although not currently recognised as swimming sites, Sites 2 and 6 are included in the monitoring program as environmental sites. All sites south of the Derwent estuary complied with Guideline values.	When issued, public health advisories remained in place until resampling demonstrated compliance with Guideline values. Permanent signs indicating a water quality grading of good, moderate or poor are in place at: Site 1 (fair), Site 3 (fair), Site 4 (good), Site 5 (fair) and Site 7 (good). Permanent signage is also in place at Sites 2 and 6 warning of poor water quality. Council is currently conducting extensive investigations in the catchment for Site 2 in response to the recent

Council	Location	Site / Water Body	Type of Sampling	Sampling Frequency	Results	Comments / Corrective Action
	20. Simmonds Beach					decline in water quality grading from fair to poor. A range of stakeholders are involved in assisting in identifying sources of contamination. Council are committed in working towards achieving better water quality outcomes for this site as it a popular swimming site.
	<ol style="list-style-type: none"> 1. Beach Orchard Health & Recreation Centre, Margate, 1 pool, 1 spa 2. Kingston Pool, Kingston, pool 3. Woodbridge Pool, Woodbridge Hill Road, pool 	Pools and Spas	Bacteriological (Heterotrophic Plate Count, Thermotolerant coliforms/ <i>E.coli</i> , <i>Pseudomonas aeruginosa</i>)	Monthly.	Sites were compliant with Guideline values with the exception of a single occasion at one site.	In response to noncompliant results Council ensured corrective actions were undertaken. Resampling returned compliant results with no pool closures required.
4.19 King Island Council Contact: Robyn Barwick 6462 9000	No sites sampled	Natural recreational water body	No sampling conducted	No sampling conducted	No sampling conducted	Council did not conduct sampling during the 2018 - 2019 season.
	No sites sampled	Pools and Spas	No sampling conducted	No sampling conducted	No sampling conducted	Council did not conduct sampling during the 2018 - 2019 season.
4.20 Latrobe Council Contact: Glenys Nichols 6426 4444	<ol style="list-style-type: none"> 1. Freer Beach - Shearwater 2. Hawley Beach 3. Mersey River - end of Shale Road 4. Mersey River - Bells Parade 5. Panatana Rivulet 6. Port Sorell Pontoon 	Natural recreational water body sampling sites	Bacteriological Enterococci	Weekly from December to March.	Results were noncompliant with Guideline values at Site 4 on eight occasions and on one occasion at end of Site 3. Sites 5 and 7 were noncompliant with	Public health advisories were issued for Site 4 on three occasions with signage put in place advising of poor water quality. Additional sampling was undertaken in the vicinity of this site as part of a sanitary

Council	Location	Site / Water Body	Type of Sampling	Sampling Frequency	Results	Comments / Corrective Action
	7. Squeaking Point				Guideline values on a single occasion in late March.	survey to investigate possible sources of contamination.
	<ol style="list-style-type: none"> 1. Latrobe Swimming Pool, Latrobe, 1 pool 2. Lotus Waters Wellness Centre Spa, Shearwater, 1 spa 3. Rubicon Swim School, Latrobe, 1 pool 4. Shearwater Resort, Shearwater, 2 pools, 1 spa 5. Strathdevon Aged Care, Latrobe, 1 hydrotherapy pool, 6. Tudor Cabins, Northdown, 1 pool 	Pools and Spas	Bacteriological (Heterotrophic Plate Count, Thermotolerant coliforms/ <i>E.coli</i> , <i>Pseudomonas aeruginosa</i>)	Monthly.	Noncompliant results occurred on one occasion at one spa.	Where noncompliant results occurred Council ensured corrective actions and resampling were undertaken. Resampling returned compliant results with no closures required.
4.21 Launceston (City of Launceston) Contact: Clare Harding 6323 3204	<ol style="list-style-type: none"> 1. Corra Lynn 2. First Basin, South Esk River Catchment 3. St Leonards Picnic Ground, North Esk River Catchment 4. Waverley Lake 	Natural recreational water body sampling sites	Bacteriological Enterococci	Weekly from December to March.	Results were compliant with Guideline values with the exception of two sampling occasions at Site 3. Resampling at this site returned compliant results on both occasions.	There were no public health advisories issued during the season. All sites were considered suitable for primary contact activities.
	<ol style="list-style-type: none"> 1. Australian Maritime College, Newnham Pool, pool 2. Brent Wrangmore Swim School, Launceston, pool 3. Glen Dhu Pool, South Launceston, pool 4. Glenara Lakes Pool and Spa, Youngtown, 1 pool, 1 spa 	Pools and Spas	Bacteriological (Heterotrophic Plate Count, Thermotolerant coliforms/ <i>E.coli</i> , <i>Pseudomonas aeruginosa</i>)	Monthly.	With the exception of a single sample at two sites, results were compliant with Guideline values .	Where noncompliant results occurred Council ensured corrective actions and resampling were undertaken. Resampling returned compliant results with no closures required.

Council	Location	Site / Water Body	Type of Sampling	Sampling Frequency	Results	Comments / Corrective Action
	5. Just Swim, Kings Meadows, pool 6. Launceston Aquatic Centre, Launceston, 6 pools, 1 spa 7. Launceston Church Grammar, East Launceston, pool 8. Launceston College Pool and Spa, Launceston, 1 pool, 1 spa 9. Launceston Swim School, South Launceston, pool 10. Lilydale Pool, Lilydale, 1 pool, 1 spa 11. Olde Tudor pool and Spa, Launceston, pool 12. Sacred Heart Pool, Launceston, pool 13. St Patricks College Pool, Launceston 14. Village family Motor Inn, South Launceston, 1 pool, 1 spa					

Council	Location	Site / Water Body	Type of Sampling	Sampling Frequency	Results	Comments / Corrective Action
4.22 Meander Valley Council Contact: Katie Proctor 6393 5339	1. Blackstone Heights - Lake Trevallyn 2. Bracknell Picnic Area - Liffey River 3. Egmont Bridge - Meander River 4. Hadspen Picnic Area - South Esk River	Natural recreational water body sampling sites	Bacteriological Enterococci	Weekly from December to March.	<p>Results were generally compliant with Guideline values for primary contact at Site 1, with the exception of two occasions.</p> <p>Results were noncompliant for most of the swimming season at Site 2, on a single occasion in January and most of February and March at Site 3 and on one occasion at Site 4.</p>	<p>Water quality at Site 1 was suitable for primary contact, with results of resampling following noncompliances returning compliant results.</p> <p>A public health advisory was issued for Site 2 in February warning of poor water quality and remained in place till the end of March.</p> <p>While results exceeded Guideline values throughout the season at Site 3, public health advisories were not required as subsequent resampling on each occasion did not exceed values.</p> <p>Water quality at Site 4 was suitable for primary contact, with results of resampling following a single noncompliance returning compliant results.</p>
	1. Caveside Pool, pool 2. Country Club Casino, Prospect vale, 1 pool, 1 spa 3. Country Club Villas, 1 pool, 1 spa 4. Deloraine Pool, pool	Pools and spas	Bacteriological (Heterotrophic Plate Count, Thermotolerant coliforms/ <i>E.coli</i> , <i>Pseudomonas aeruginosa</i>)	Monthly when open.	Noncompliant results occurred on one occasion at one pool site, on four occasions at one spa site and on three occasions at another spa site.	Where results were noncompliant corrective action and resampling was undertaken. Resampling returned compliant results in all but one occasions, which resulted in closure at that

Council	Location	Site / Water Body	Type of Sampling	Sampling Frequency	Results	Comments / Corrective Action
	5. Deloraine Primary School, pool 6. Mole Creek Pool, pool					spa site until further action and resampling indicated compliance.
4.23 Northern Midlands Council Contact: Chris Wicks 6397 7335	1. Mill Dam Reserve, Longford, South Esk River 2. Rotary Park, Leighlands Road, Evandale, South Esk River 3. William Street Reserve, Perth, South Esk River	Natural recreational water body sampling sites	Bacteriological Enterococci	Weekly from December to March.	Sites were compliant with Guideline values with the exception of two occasions at Site 2 and one occasion at Site 3.	All sites were considered suitable for primary contact with resampling returning compliant results. The cause of noncompliant results for Site 1 were identified. Noncompliant results for Site 2 in late February were attributed to rainfall and flood water.
	1. Campbell Town Pool, Campbell Town, pool 2. Cressy Pool, Cressy, pool 3. Ross Pool, Ross, pool	Pools and Spas	Bacteriological (Heterotrophic Plate Count, Thermotolerant coliforms/ <i>E.coli</i> , <i>Pseudomonas aeruginosa</i>)	Monthly when open.	All sites were compliant with Guideline values.	No corrective actions were required.
4.24 Sorell Council Contact: Greg Robertson 6269 0041	1. Connelly's Beach 2. McKinly St, Midway Point 3. Park Beach 4. Primrose Beach 5. Red Ochre Beach North 6. Red Ochre Beach South 7. Tigerhead Beach, boat ramp 8. Tigerhead Beach, Seventh Ave	Natural recreational water body sampling sites	Bacteriological Enterococci	Weekly from December to March.	Sites were compliant with Guideline values for primary contact activities, with the exception of Site 2 on one occasion and Sites 5 and 6 on two occasions. Resampling at all sites returned compliant results.	Water quality at all sites was considered suitable for primary contact and given a grading of good, with the exception of Site 1. The water quality grading at Site 1 improved from poor (in the 17-18 season) to fair in the 18-19 season. Classification of water quality at Sites 1 and 2 is only based on three years of monitoring data.

Council	Location	Site / Water Body	Type of Sampling	Sampling Frequency	Results	Comments / Corrective Action
						Permanent signs are in place at all routine sample sites advising against swimming after heavy rain. Council conducts annual sanitary surveys of all sites to help determine changes in influences/causative effects on water quality.
	1. Steeles Island Retreat, Carlton Beach, 1 spa	Pools and Spas	Bacteriological (Heterotrophic Plate Count, Thermotolerant coliforms/ <i>E.coli</i> , <i>Pseudomonas aeruginosa</i>)	Council conducted sampling on one occasion.	The single result received by Council was compliant with Guideline values.	Council has instructed the spa owners to conduct monthly sampling at the site. Council was not notified of any noncompliant results.
4.25 Southern Midlands Council Contact: Leon McGuinness 6259 3011		Natural recreational water body sampling sites				No primary contact sites have been identified in municipal area.
	1. Oatlands Swimming Pool, Oatlands, pool	Pools and Spas	Bacteriological (Heterotrophic Plate Count, Thermotolerant coliforms/ <i>E.coli</i> , <i>Pseudomonas aeruginosa</i>)	Monthly when open.	Results were compliant with Guideline values.	No corrective actions were required.
4.26 Tasman Council Contact: Natalie Rogers 6250 9200	1. Nubeena Foreshore 2. Shelley Beach 3. Sloping Main 4. Stewarts Bay 5. White Beach, southern end between lagoon outlets	Natural recreational water body sampling sites	Bacteriological Enterococci	Monthly from December to March.	Results were compliant with Guideline values.	All sites were suitable for primary contact. Permanent signs advising of poor water quality have been erected at Sucklings Creek/Parsons Bay and Stewarts Bay, based on

Council	Location	Site / Water Body	Type of Sampling	Sampling Frequency	Results	Comments / Corrective Action
						noncompliant results in previous years.
	<ol style="list-style-type: none"> Tasman District Pool, Tasman District School, 1 pool Munro Pool, Three Capes Walk, 1 pool 	Pools and Spas	Bacteriological (Heterotrophic Plate Count, Thermotolerant coliforms/ <i>E.coli</i> , <i>Pseudomonas aeruginosa</i>)	Monthly when open for Site 1. Provisional approval has been granted for sampling at 6 week intervals for Site 2.	Results were compliant with Guideline values with the exception of two occasions at Site 1.	Where Guideline values were noncompliant Council ensured corrective actions were undertaken. Resampling returned compliant results.
4.27 Waratah-Wynyard Council Contact: David Kleyweg 6443 8342	<ol style="list-style-type: none"> Boat Harbour Beach Cam River Somerset East Wynyard Beach Sisters Beach Sisters Creek Somerset Beach 	Natural recreational water body sampling sites	Bacteriological Enterococci	Sampling was conducted weekly at Sisters Creek and Cam River and monthly at the remaining sites, from December to March.	Sampling sites were compliant with Guideline values, with the exception of Sisters Creek and Cam River. Noncompliant results occurred on all but one occasion throughout the season at Sisters Beach Creek and on two occasions at Cam River.	Permanent signs are in place at Sisters Creek advising that water is unsuitable for primary contact.
	<ol style="list-style-type: none"> Leisure Ville Caravan Park, East Wynyard, 1 pool, 1 spa Wescombe's Leisure and Therapy Centre, Somerset, 1 pool, 1 spa Wynyard Fitness, Wynyard, 1 pool, 1 spa 	Pools and Spas	No details provided.	No details provided.	No details provided.	Minimal detail provided by council.

Council	Location	Site / Water Body	Type of Sampling	Sampling Frequency	Results	Comments / Corrective Action
4.28 West Coast Council Contact: West Coast Council 6471 4700	1. West Strahan Beach	Natural recreational water body sampling sites	Bacteriological Enterococci	Weekly from December to March.	Results complied with the Guideline values for primary contact activities with the exception of three occasions. Resampling on all occasions returned compliant results.	A public health advisory was issued for Site 1 in response to noncompliant results in mid February and remained in place until late February. Storm events, growth of filamentous algae stormwater outfalls onto the beach and impacts of a nearby caravan park were noted as possible sources of contamination.
	1. Queenstown Swimming Pool 2. Rosebery Swimming pool 3. Zeehan Swimming Pool	Pools and Spas	Bacteriological (Heterotrophic Plate Count, Thermotolerant coliforms/ <i>E.coli</i> , <i>Pseudomonas aeruginosa</i>)	Monthly when open.	Results complied with Guideline values.	No corrective actions were required.
4.29 West Tamar Council Contact: Rick Chippindall 6323 9326	1. Beauty Point 2. Deviot 3. Gravelly Beach 4. Greens Beach 5. Kelso 6. Paper Beach 7. Redbill Point 8. Rosevears 9. Lake Trevallyn	Natural recreational water body sampling sites	Bacteriological Enterococci	Weekly from December to March.	Sites were complaint with Guideline values with the exception of a single noncompliant result at Kelso. Resampling at this site returned compliant results. Although significant algal blooms have occurred at Site 5 in previous years, microbial results for this season were generally acceptable.	Water quality at all sites was suitable for primary contact. Council conducts and records details of weather conditions and recreational activities at each site at the the time of sampling which contributes to the broader understanding of the sites and catchment.
	No information provided.	Pools and Spas			No pool or spa results were reported to council.	No noncompliant results were reported to council.

5. DISCUSSION

This is the eighteenth year of reporting on recreational water quality management in Tasmania.

Twenty-seven of 29 councils reported having active water quality monitoring programs for natural recreational water bodies within their municipal areas. One of the two councils that did not do regular testing reported that they manage natural recreational waters through permanent warning signage.

When routine testing identified non-compliant water quality in natural recreational water bodies, councils responded with a combination of resampling and signage, to indicate that the water was temporarily unsuitable for swimming. Management of recreational water quality where ongoing non-compliance was identified has included installing permanent signage, conducting sanitary surveys, and further investigation of stormwater systems and other possible sources of contaminants throughout the affected areas of the catchments.

By undertaking regular testing of designated natural recreational water sites, and managing them in accordance with guidelines, councils help the public to make confident and informed decisions about water quality and the risk to human health when swimming or enjoying other recreational activities.

The Guidelines also require councils to undertake ongoing risk assessments of natural recreational water bodies, through their sanitary surveys, to ensure that all new or emerging threats to the water body are evaluated.

Most councils reported having monthly water quality monitoring programs in place for public swimming pools and public spa pools. Non-compliant results were addressed by requiring operators to undertake corrective actions. Corrective actions include resampling to verify the effectiveness of the actions taken and can also include pool closure.

The Guidelines describe councils' responsibilities in relation to managing natural recreational water bodies. Sampling frequency is prescribed, but the Guidelines also provide for a council to seek the Director of Public Health's approval for a variation in sampling frequency. A council must demonstrate that historical water quality data clearly indicates consistent compliance with Guideline values and/or through sanitary survey analysis that a site is not subject to any readily identifiable point or diffuse pollution sources. This process should accommodate both a risk assessment that is sensitive to the hazards that may emerge at a site, and an approach that considers the public use of the site and the appropriate deployment of council resources.

The current review of the *Tasmanian Recreational Water Quality Guidelines* and ongoing annual council reporting on recreational water quality management has identified non-compliances with the required monitoring frequency. Sampling frequency of both natural recreational water bodies and public pools/spas has been insufficient across a number of councils.

DoH officers are now conducting a statewide review of all council recreational water quality management activities. This was initiated in October 2019 when the Director of Public Health, Dr Mark Veitch wrote to all council general managers, advising of this project. Councils were reminded of the process for seeking approval to vary to sampling frequency of natural recreational water sites and that they must ensure water quality at public pools and public spas is monitored and managed in

accordance with the guidelines, noting the importance of complying with the set sampling frequency at these sites.

Site visits/discussions with councils were conducted between November 2019 and March 2020 and work is now underway to compile the findings and recommendations of the review. Officers will continue to work closely with councils to ensure improved recreational water quality surveillance by councils.

In conclusion it is important that the public remains aware that heavy rainfall affects the water quality of recreational areas, especially near storm water outfalls, as contaminants on the land are washed into the water. Accordingly, people should not swim near flowing storm water outfalls, and should wait for at least two days after rain before swimming in areas where contaminated run-off is likely to have occurred. This general advice applies to designated natural recreational water sites and other locations in Tasmania.

A handwritten signature in black ink, appearing to read 'Paul Hunt', with a stylized flourish at the end.

Paul Hunt

State Manager Environmental Health Services

6. DEFINITIONS

“Agency” means an Agency within the meaning of the *Tasmanian State Service Act 2000*.

“Authorised Officer” means –

- a) The Director; or
- b) A medical officer of health; or
- c) An environmental health officer.

“Controlling Authority” means an Agency, public authority or person managing or in control of water.

“Council” means a council with the meaning of the *Local Government Act 1993*.

“Director of Public Health” means the Director of Public Health appointed under section 6 of the *Public Health Act 1997*.

“Environmental Health Officer” means a person appointed under section 10 or 11 of the *Public Health Act 1997*.

“E.coli (*Escherichia coli*)” refers to a group of bacteria found in the gut of warm blooded animals (including humans), used as an indicator of faecal contamination of water.

“Enterococci” is a group of bacteria common to the faecal matter of warm-blooded animals, including humans. It is commonly used as an indicator of faecal contamination of estuarine and marine water bodies.

“Heterotrophic Plate Count (or Standard Plate Count)” is a measure of the overall bacteriological quality of water, used in conjunction with other bacterial indicator species.

“Natural recreational water body” includes any coastal and estuarine water (including tidal washed pools and marine baths that interchange with seawater), natural fresh water environs such as rivers or streams, lakes, weirs and dams but not public pools and spas.

“Public spa pool” means a pool or other water-retaining structure for human use that incorporates, or is connected to equipment that is capable of heating any water contained in it and injecting air bubbles or water into it under pressure so as to cause general disturbance in the water, to which the general public has access (whether for payment or fee or not), or which is for the general use of guests in tourist accommodation, other than:

- a) a spa pool; or
- b) a tidal pool or other similar structure where water flows in and out according to the operation of natural forces

“Public swimming pool” includes any swimming pool, waterslide, wave pool, hydrotherapy pool or other similar structure to which the general public has access (whether for payment of a fee or not), or which is for the general use of guests in tourist accommodation, other than:

a) A spa pool; or

b) A tidal pool or other similar structure where water flows in and out according to the operation of natural forces.

“Primary contact activity” means an activity in which the whole body or face and trunk are immersed or the face is frequently wet by spray. It is likely that some water will be swallowed or inhaled or come into contact with ears, nasal passages, mucus membranes or cuts in the skin. (Examples include swimming, diving, surfing or whitewater canoeing.)

“Pseudomonas aeruginosa” is a bacterium common in water, soil and the environment and if inadequately disinfected, in swimming pools and spas. If present in high numbers in pool and spa water it can cause infections of the skin, ear, urinary and respiratory tracts, wounds and cornea.

“Recreational water” includes any coastal and estuarine water (including tidal washed pools and marine baths that interchange with seawater), natural fresh water environs such as rivers or streams, lakes, weirs and dams, and public pools and public spas.

“Sanitary inspection” means an inspection carried out in accordance with section 5.4.1 of the National Health and Medical Research Council’s Guidelines for Managing Risks in Recreational Water.

“Secondary contact activity” means an activity in which only the limbs are frequently wet and swallowing water is unusual. Examples include boating, fishing and wading, where occasional immersion may occur.

“Swimming season” means the months of December, January, February and March.

“Threat to public health” means any event or circumstance which is likely to –

a) Damage, injure or compromise public health; or

b) Prevent or restrict the improvement of public health.

“Thermotolerant Coliform bacteria” means a class of bacterium often referred to as faecal coliforms that is often used as an indicator of water quality in conjunction with other bacterial indicator species.

7. REFERENCES

National Health and Medical Research Council 2008. *Guidelines for Managing Risks in Recreational Water*. Available at www.nhmrc.gov.au/publications/synopses/eh38.htm

Department of Health & Human Services 2007. *Recreational Water Quality Guidelines*. Available at www.dhhs.tas.gov.au/__data/assets/pdf_file/0014/53321/2007_RWQG.pdf