Recreational Water Quality  
Annual Report

Reporting period 1 July 2017 – 30 June 2018

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Director of Public Health  
Recreational Water Quality Report 2017-2018

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# 1. 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*, issued by the Director of Public Health (the Director).

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 should 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:*

1. *manage the water in a manner that does not pose a threat to public health; and*
2. *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 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 the 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 MANAGEMENT ACTIVITIES

Table 1 – Council Recreational Water Management Activities

| **Council** | **Location** | **Site / Water Body** | **Type of Sampling** | **Sampling Frequency** | **Results** | **Comments / Corrective Action** |
| --- | --- | --- | --- | --- | --- | --- |
| **4.1 Break O'Day Council**  **Contact Council:**  **Paula Kloosterman (03) 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. | All sites were compliant with Guideline values. | Permanent signs are in place advising not to swim during and after rainfall events in enclosed water and river sites. |
| 1. Bayside Inn, St Helens, pool 2. Blue Seas Holiday Villas, pool 3. Scamander Beach Hotel Motel, pool 4. St Helens District High School, pool 5. St Marys District High School, pool 6. Tidal Waters, St Helens, pool 7. White Sands Estate, Ironhouse Point, 1 pool, 1 spa | Pools and Spas | Bacteriological  Heterotrophic Plate Count  Thermotolerant coliforms/  *E.coli*  *Pseudomonas aeruginosa* | There are no records of details of sampling frequency. | Apart from one compliant result from Site 2, there are no records of results. |  |
| **4.2 Brighton Council Contact:  Brent Bastian  (03) 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. The site is recognised as used for secondary contact activities. | Permanent signs are in place advising against primary contact activities.  Water quality has been graded as very good at this site. |
| 1. Brighton Swim centre | Pools and Spas | Bacteriological Heterotrophic Plate Count Thermotolerant coliforms/ *E.coli Pseudomonas aeruginosa* | Monthly. | Results were compliant with Guideline values. | No corrective actions were required. |
| **4.3 Burnie Council Contact Amanda Richards** [**eho@burnie.net**](mailto:eho@burnie.net)  **6430 5765** | 1. Cooee Beach, east end 2. Cooee Beach, west end 3. West Beach, east end 4. West Beach, west end 5. South Burnie, yacht club | Natural recreational water body  sampling sites | Bacteriological Enterococci | Sampling frequency varied from fortnightly to 3 weekly | Sites were compliant with Guideline values. |  |
| 1. Burnie Aquatic Centre, Burnie, pool 2. Healthglo Fitness & Leisure, Burnie, pool 3. Private Pool Hire, Camdale, pool 4. TLC Aquatic, West Mooreville Road, Burnie, pool 5. Taswim, Burnie, pool 6. School of Special Education, Burnie | Pools and Spas | Bacteriological Heterotrophic Plate Count Thermotolerant coliforms/ *E.coli Pseudomonas aeruginosa* | 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 or Madeline McKinnell on**  **6429 8936** | 1. Bannons Park, Gunns Plains 2. Johnsons Beach, Penguin Caravan Park 3. Main Beach, Penguin 4. Main Beach, Ulverstone, Surf Club 5. Midway Point, Penguin 6. Picnic Point Beach, West Ulverstone 7. Preservation Bay, Penguin, Surf Club 8. Turners Beach | Natural recreational water body  sampling sites | Bacteriological Enterococci | Sampling was conducted on five occasions. | Sites 2 - 7 were compliant with Guideline values, with the exception of a single elevated result at Main Beach, Ulverstone in early December. Resampling at this site returned compliant results.  In response to noncompliant results at Site 1. Bannons Park in early December, four additional upstream sampling sites along the Leven River were added to the sampling program. | Site.1Bannons Park is located downstream from the intensive dairy farming region of Gunns Plains. In response to noncompliant results at this site in January, public health advisories were installed to advise the public of poor water quality. Further sampling of four sites upstream of Bannons Park over January and February returned widespread noncompliant results. Without an obvious source of contamination identified, council concluded that paddock irrigation and on-site wastewater systems were likely contributing sources. |
|  | 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/  *E.coli*  *Pseudomonas aeruginosa* | Monthly when open | Results were compliant with Guideline values, with the exception of one site with two consecutive noncompliant samples resulting in pool closure on one occasion. | Corrective actions were taken in response to noncompliant results. Upon receipt of two compliant resample results, the closed pool was re-opened. |
| **4.5 Central Highlands Council**  **Contact Bev Armstrong**  **(03) 6259 5503** | 1. Arthurs Lake 2. Bronte lagoon 3. Derwent River, Lake Meadowbank 4. Swan Bay 5. Wayatinah Lagoon | Natural recreational water body  sampling sites | Bacteriological Enterococci | Sampling was conducted on one occasion at each site in January | Sites were compliant with Guideline values. | 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. |  |
| **4.6 Circular Head Council**  **Contact Circular head Council**  **(03) 6452 4800 or (03) 6452 4840** | 1. Crayfish Creek 2. Detention River 3. Godfreys Beach 4. Tatlows Beach | Natural recreational water body  sampling sites | Bacteriological Enterococci | Monthly | Sites were compliant with Guideline values. | While there been an improvement in water quality at Crayfish Creek and Detention River, permanent signs remain in place advising against primary contact activities at these sites. This is based on noncompliant results in previous years. |
| No pools open to the public during 2016-2017 season | Pools and Spas |  |  |  |  |
| **4.7 Clarence City Council**  **Contact Ron Vanderwal**  **(03) 6217 9573** | 1. Bellerive Beach 2. Howrah Beach East 3. Howrah Beach, Salacia Ave 4. Howrah Beach, Silwood Ave 5. Little Howrah Beach   Additional sites sampled this season:   1. Dorans Road, Sandford 2. Lauderdale Beach 3. Opossum Bay 4. Seven Mile Beach | Natural recreational water body  sampling sites | Bacteriological Enterococci | Weekly from December to March and monthly during other months for Sites 1- 5, four occasions for Site 7 and one occasion for Sites 6, 8 and 9. | Water quality at sites 1- 5 has been graded as good. In addition, limited sampling of Sites 6 - 9 returned compliant results.  Overall, the relatively small number of sample results that were noncompliant with Guideline values followed rain events. | Stormwater discharge into the Derwent Estuary following rain events is considered a major contributor to poor water quality, as shown in noncompliant results for Bellerive and Howrah Beach. Consequently the Southern Primary School Triathlon Day at Bellerive Beach in early December was cancelled following rain and resultant noncompliant sample results.  Council continues to fund investigative works throughout the stormwater network and work collaboratively with TasWater to identify and upgrade problematic areas.  Council intends installing ‘flip down’ signage to display advisory warnings where two consecutive samples return noncompliant results. |
|  | 1. Acton Swim Centre, 1 pool, 1 spa 2. Barilla Thermal Springs, Cambridge, 1 spa 3. Clarence Aquatic Centre, Montagu Bay, 3 pools 4. Clarence Joint Therapy, Howrah, 1 pool, 5. Oceania Health and Fitness, Mornington, 1 hydro therapy pool, 1 pool 6. Richmond Caravan Park, Richmond, 1 pool 7. Sea Horse Swim Centre, Howrah, 1 pool 8. Shellz Swim Centre, Rokeby East, 1 pool 9. Wyndham resort, Seven Mile Beach, 1 pool, 1 spa | Pools and Spas | Bacteriological  Heterotrophic Plate Count  Thermotolerant coliforms/  *E.coli*  *Pseudomonas aeruginosa*. | Monthly |  | Noncompliant results occurred on three occasions over two sites. On all occasions corrective action was taken and resampling returned compliant results. |
| **4.8 Derwent Valley Council**  **Contact David Bradford**  **(03) 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 with the exception of a single noncompliant result in December. | Water quality at this site was given a rating of good. |
| 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/ *E.coli Pseudomonas aeruginosa* | Sampling was conducted monthly at Sites 1 and 2, and weekly at Site 3. | Results were compliant with Guideline values with the exception of a single noncompliant result at one site in November. | No pools were closed during the swim season. |
| **4.9 Devonport City Council**  **Contact Senior Environmental Health Officer (03) 6424 0576** | 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. | All sites are considered suitable for current recreational uses. |
| 1. Croft, Croft Ave, Devonport, pool 2. Gordon Place, Devonport, pool 3. Lawrence Drive, Devonport, pool 4. Nixon St Primary School, Devonport, pool 5. Splash Aquatic Centre, Devonport , 2 hydrotherapy pools, 2 pools 6. Wrenswood, Quioba, pool | Pools and Spas | Bacteriological  Heterotrophic Plate Count  Thermotolerant coliforms/  *E.coli*  *Pseudomonas aeruginosa* | Monthly from December to March. | Results were compliant with Guideline values. | No corrective actions were required. |
| **4.10 Dorset Council**  **Contact Dorset Council**  **(03) 6353 6575** | 1. Old Pier Beach | Natural recreational water body  sampling sites | Bacteriological  Enterococci | Weekly from December to March. | Results were compliant with Guideline values, with the exception of a single noncompliant result in late March. Resampling returned compliant results. | At times effluent from the TasWater sewage outlet to the main beach may affect water quality. |
| 1. Branxholm Pool, Branxholm 2. Lost Farm Wellness Centre Spa, Bridport, spa 3. Ringarooma Pool, Ringarooma 4. Scottsdale Pool, Scottsdale | Pools and Spas | Bacteriological  Heterotrophic Plate Count  Thermotolerant coliforms/  *E.coli*  *Pseudomonas aeruginosa* | Monthly from December to March and when open. | All sites were compliant with Guideline values. | No corrective actions were required. |
| **4.11 Flinders Island Council**  **Contact Jacci Viney (03) 6359 5005** | 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 sites were compliant with Guideline values. |  |
| 1. Flinders Island District High School Pool, Whitemark, pool | Pools and Spas | Bacteriological  Heterotrophic Plate Count  Thermotolerant coliforms/  *E.coli*  *Pseudomonas aeruginosa* | Monthly from December to March. | A single noncompliant result occurred on one occasion. | Corrective actions were undertaken. |
| **4.12 George Town Council**  **Contact Patricia Stanwell**  **(03) 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/  *E.coli*  *Pseudomonas aeruginosa* | Monthly from December to March**.** | Results were compliant with Guideline values. | No corrective actions were required. |
| **4.13 Glamorgan/Spring Bay Council**  **Contact Glamorgan Spring Bay Council (03) 6256 4777** | 1. East Shelly Beach, Orford 2. Jubilee Beach, Swansea 3. Muirs Beach, Coles Bay 4. Spring Beach, Orford 5. Waubs Beach, Bicheno | Natural recreational water body  sampling sites | Bacteriological  Enterococci | Monthly from December to February. | Sites were compliant with Guideline values. |  |
| 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, 1 spa 7. Wintersun Gardens Motel, pool | Pools and spas | Bacteriological Heterotrophic Plate Count Thermotolerant coliforms/ *E.coli Pseudomonas aeruginosa* | Varied from monthly at one site to twice per swimming season at other sites. | Noncompliant results occurred on one occasion at one site. | Corrective action was taken and resampling returned compliant results. |
| **4.14 Glenorchy City Council**  **Contact Tara Patmore**  **(03) 6216 6334** | 1. Elwick Bay 2. Windermere Beach 3. Mona Berriedale Bay 4. Mona Cameron Bay 5. Mona Jetty | Natural recreational water body  sampling sites | Bacteriological Enterococci | Monthly from December to March**.** | A single noncompliant result for Elwick Bay and two noncompliant results for Windermere Beach coincided with rain events. Noncompliant results for the MONA sites also coincided with rain events, with more frequent noncompliant results for Berridale Bay occurring throughout the season. | Water quality at Elwick Bay continued to improve this season with the rating increasing from poor to fair, while Windermere Bay maintained a rating of good. While the MONA sites are not swimming sites they provide additional information on recreational water quality. Water quality at Berriedale Bay may have been affected by heavy construction work, including disturbance of the river bed and banks. |
| 1. YMCA, 50 m pool 2. YMCA, wading pool 3. YMCA, Slide Pool 4. KGV Hydrotherapy Pool, pool 5. Mona Pool, Berriedale 6. One Care, Glenorchy, pool 7. Waterfront Lodge, Lutana, pool 8. Riverfront Motel & Villas, pool 9. Undine Pool, Rosetta | Pools and spas | Bacteriological  Heterotrophic Plate Count  Thermotolerant coliforms/  *E.coli*  *Pseudomonas aeruginosa* | Monthly from December to March. | Sites were compliant with Guideline values. | No corrective actions were required. |
| **4.15 Hobart (City of Hobart)**  **Contact Felicity Edwards**  **(03) 6238 2842** | 1. Nutgrove Beach (3 sites) 2. Little Sandy Bay Beach (2 sites) 3. Marieville Esplanade 4. Cornelian Bay | Natural recreational water body  sampling sites | Bacteriological Enterococci | Weekly from December to March. | Primary contact sites, Nutgrove Beach East, Little Sandy Bay Beach South and Little Sandy Bay Beach North were compliant with Guideline values.  Noncompliant results for the non-primary contact sites, Nutgrove Beach Middle and Nutgrove Beach West occurred on two occasions. Results for Marieville Esplanade and Cornelian Bay were also noncompliant on a number of occasions throughout the sampling season. | As a result of compliance with Guideline values for all primary contact beaches, there were no beach closures at these sites. These sites maintained a water quality rating of good.  Nutgrove West and Nutgrove Middle were rated as poor. Joint investigations into possible stormwater contamination by the Derwent Estuary Program, council and TasWater continue, with a common goal to achieve water quality at Nutgrove Beach that is consistently suitable for primary contact.  Permanent signs are in place at Nutgrove West, Marieville Esplanade and Cornelian Bay warning of poor water quality. Signs are also in place at Nutgrove Beach East and Little Sandy Bay beach advising of good water quality. |
| 1. Bay View Villas, Poets Road, 1 pool George Town Swimming 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. hydrotherapy pool 11. Star Fish Swim Centre, Stratton Ave, 1 pool 12. St Michaels Collegiate, Macquarie St, 1 pool 13. Wrest point, Sandy Bay Road, 1 pool, 1 spa | Pools and Spas | Bacteriological Heterotrophic Plate Count Thermotolerant coliforms/ *E.coli Pseudomonas aeruginosa* | Monthly | A small number of samples were noncompliant across four sites throughout the sampling period, with one site returning noncompliant results on four sampling occasions. | Where results were noncompliant council officers ensured corrective actions were undertaken. One pool was closed on two occasions and reopened following corrective action and further sampling in accordance with Guideline requirements. |
| **4.16 Huon Valley Council**  **Contact Scott Edwards**  **(03) 6264 0355** | No sites were sampled. | Natural recreational water body  sampling sites | No sampling conducted. | No sampling conducted. | No sampling conducted. | Sampling is no longer conducted 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/*E.coli, Pseudomonas aeruginosa*) | Monthly. | Noncompliant results occurred at one pool. Resampling at this site also returned noncompliant results. | Pool closure followed receipt of two consecutive noncompliant results at one site. Corrective action was taken and the pool reopened following corrective action and further sampling in accordance with Guideline requirements. |
| **4.17 Kentish Council**  **Contact Adam Gardner**  **(03) 6491 0213** | 1. Lake Barrington - Kentish Park 2. Lake Barrington - Rowing Course | 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,1spa 2. Sheffield School Railton Campus, pool 3. Silver Ridge Retreat, pool 4. Waldheim Spa, Peppers Lodge, Cradle Mountain – 1pool, 1 spa | Pools and Spas | Bacteriological  (Heterotrophic Plate Count, Thermotolerant coliforms/*E.coli,* *Pseudomonas aeruginosa*). | Monthly when open. | A small number of noncompliant results occurred across three sites. | Where noncompliant results occurred, corrective actions were undertaken. No pools or spas were closed during the sampling season. |
| **4.18 Kingborough Council**  **Contact John Devries**  **(03) 6211 8171** | 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. Taroona 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 20. Simmonds 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 Blackmans Bay Beach, Kingston Beach and a single sample from Taroona Beach were noncompliant with Guideline values for primary contact activities, with two public health advisories issued, one at Kingston Beach North/Middle in February and one at Blackmans Bay South in March.  With the exception of a single sample, all sites south of the Derwent estuary complied with Guideline values. | Permanent signs are in place at Browns River advising that water quality may not be suitable for primary contact. Permanent signs indicating a water quality grading of good, moderate or poor are in place at: Taroona beach (good), Kingston Beach North (moderate), Kingston Beach Middle (good), Kingston Beach South (moderate) and Blackmans Bay Beach (good).  Council is conducting investigations at Blackmans Bay Beach South to identify sources of contamination and have dropped the rating at this site to poor. |
| 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/*E.coli, Pseudomonas aeruginosa*) | Monthly. | Sites were compliant with guideline values. | No corrective actions were required. |
| **4.19 King Island Council**  **Contact King Island Council**  **(03) 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 2017-2018 season. |
| No sites sampled | Pools and Spas | No sampling conducted | No sampling conducted | No sampling conducted | Council did not conduct sampling during the 2017-2018 season. |
| **4.20 Latrobe Council**  **Contact Glenys Nichols**  **(03) 6421 4650** | 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 7. Squeaking Point | Natural recreational water body  sampling sites | Bacteriological Enterococci | Weekly from December to March. | Results were noncompliant with guideline values at Bells parade on six occasions and on two occasions at end of Shale Road and Panatana Rivulet. | Remedial works to increase flow have been undertaken along the Mersey River since the June 2016 floods, however occasional minimal flows continue to occur and affect water quality. Permanent signage indicating a water quality grading of fair is in place at Mersey River, Bells Parade. While tides and rainfall affect water quality, council is also considering restricting dogs from Panatana Rivulet area to further reduce impacts on water quality. |
| 1. Latrobe Swimming Pool, Latrobe, 1pool 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/*E.coli, Pseudomonas aeruginosa*) | Monthly. |  | Noncompliant results occurred on four occasions at one spa and on two occasions at two pools. Corrective action was taken and resampling returned compliant results. |
| **4.21 Launceston (City of Launceston)**  **Contact Debbie Fortuin**  **(03) 6323 3209** | 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 for primary contact activities at First Basin and Waverly Lake. Noncompliant results occurred on six occasions at St Leonards Picnic Ground and seven occasions at Corra Lynn. | Where results of resampling were not compliant with Guideline values, public health advisories were put in place to warn the public of poor water quality. |
| 1. Australian Maritime College, Newnham Pool, pool 2. Brent Wrankmore Swim School, Launceston, pool 3. Glen Dhu Pool, South Launceston, pool 4. Glenara Lakes Pool and Spa, Youngtown, 1 pool, 1 spa 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. Newstead Heights Pool, Newstead, pool 12. Olde Tudor pool and Spa, Launceston, pool 13. Sacred Heart Pool, Launceston, pool 14. St Patricks College Pool, Launceston 15. Village family Motor Inn, South Launceston, 1 pool, 1 spa | Pools and Spas | Bacteriological  (Heterotrophic Plate Count, Thermotolerant coliforms/E.coli, Pseudomonas aeruginosa) | Monthly. | With the exception of a single sample, results were compliant with Guideline values . | Corrective action was taken in response to the single elevated results and resampling returned compliant results. |
| **4.22 Meander Valley Council**  **Contact Katie Proctor (03) 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. | Results were generally compliant with Guideline values for primary contact at Blackstone Heights, with the exception of three occasions. Results were noncompliant on eight occasions at Bracknell, on six occasions at Egmont and on five occasions at Hadspen. Noncompliant results have generally been attributed to rainfall in the 24 - 48 hours preceding sampling and subsequent impacts of stormwater runoff. With the exception of Blackstone Heights in March, resampling at all sites returned compliant results. | Signage was put in place warning of poor water quality at Bracknell following two consecutive noncompliant results in early March and removed two weeks later on receipt of two consecutive compliant results.  Water quality at Blackstone Heights has been graded as good, at Bracknell as moderate to poor, at Egmont as good and as moderate at Hadspen. |
| 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 5. Deloraine Primary School, pool 6. Mole Creek Pool, pool | Pools and spas | Bacteriological  (Heterotrophic Plate Count, Thermotolerant coliforms/*E.coli, Pseudomonas aeruginosa*) | Monthly when open. | Noncompliant results occurred on one occasion at two sites, on two occasions at one site and on four occasions at one site. | Where results were noncompliant corrective action and resampling was undertaken. Resampling returned compliant results in all but two occasions, which resulted in pool closure at those two sites until further action and resampling indicated compliance. |
| **4.23 Northern Midlands Council**  **Contact Chris Wicks**  **(03) 6397 7303** | 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 for primary contact activities, with the exception of one occasion at Site 1, two occasions at Site 2 and one occasion at Site 3. Resampling on all occasions returned compliant results. | In general noncompliant results followed rainfall events. |
| 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/*E.coli, Pseudomonas aeruginosa*) | Monthly when open. | All sites were compliant with Guideline values. | No corrective actions were required. |
| **4.24 Sorell Council**  **Contact Greg Robertson**  **(03) 6269 0041** | 1. Connelly’s Beach 2. Park Beach 3. McKinly St, Midway Point 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 Connelly’s Beach on two occasions, Tigerhead on four occasions and McKinly St on two occasions. In general noncompliant results correlated with rainfall events. A sanitary inspection was conducted at McKinly St following a very high reading in late January but no obvious sources of contamination other than rainfall were noted. In response a public health advisory was put in place at this site warning of poor water quality. | Water quality at all sites was graded as good.  Permanent signs are in place at all routine sample sites to advise against swimming after heavy rain.  Classification of water quality at Connelly’s Beach and McKinly St is only based on two years of monitoring data. |
| 1. Flippers Swim Centre, Lewisham, 1 pool 2. Steeles Island Retreat, Carlton Beach, 1 spa | Pools and Spas | Bacteriological (Heterotrophic Plate Count, Thermotolerant coliforms/*E.coli, Pseudomonas aeruginosa*) | One site was sampled on one occasion. | The result was compliant with Guideline values. | No corrective action was required. |
| **4.25 Southern Midlands Council**  **Contact Leon McGuiness**  **(03) 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/*E.coli, Pseudomonas aeruginosa*) | Monthly when open. | Results were compliant with Guideline values with the exception of two occasions. | Corrective actions were undertaken as needed. |
| **4.26 Tasman Council**  **Contact Natalie Rogers**  **(03) 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. | Sites were compliant with Guideline values for primary contact activities. | Permanent signs advising of poor water quality have been erected at Sucklings Creek/Parsons Bay and Stewarts Bay, based noncompliant results in previous years. |
| 1. Tasman District Pool, Tasman District School, 1 pool | Pools and Spas | Bacteriological (Heterotrophic Plate Count, Thermotolerant coliforms/*E.coli, Pseudomonas aeruginosa*) | Monthly when open. | Results were compliant with Guideline values. | No corrective actions were required. |
| **4.27 Waratah-Wynyard Council**  **Contact David Kleyweg**  **(03) 6443 8342** | 1. Boat Harbour Beach 2. Cam River Somerset 3. East Wynyard Beach 4. Sisters Beach 5. Sisters Creek 6. 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 for primary contact activities, with the exception of Sisters Creek and Cam River. Noncompliant results occurred on a number of occasions throughout the season at Sisters Beach and on a single occasion at Cam River. | Permanent signs are in place at Sisters Creek advising that water is unsuitable for primary contact. |
| 1. Leisure Ville Caravan Park, East Wynyard, 1 pool, 1 spa 2. Wescombe’s Leisure and Therapy Centre, Somerset, 1 pool, 1 spa 3. Wynyard Fitness, Wynyard, 1 pool, 1 spa | Pools and Spas | No details provided. | No details provided. | No details provided. | Minimal detail provided by council. |
| **4.28 West Coast Council**  **Contact West Coast Council**  **(03) 6426 2121** | 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. | Additional sampling and a sanitary survey was conducted following community concern over a mass mortality event at a nearby fish farm. These results were compliant with Guideline values. 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/*E.coli, Pseudomonas aeruginosa*) | Monthly when open. |  | No corrective actions were required. |
| **4.29 West Tamar Council**  **Contact Rick Chippindall**  **(03) 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 Paper Beach. Resampling at this site returned compliant results. | Sites were complaint with Guideline values for primary contact activities. |
| 1. Beaconsfield Primary School Pool, Beaconsfield, 1 pool 2. Big4 Kelso Sands Holiday Park, 1 pool 3. Gravelly Beach Swim Centre, 1 pool 4. Riverside Swim Centre, Riverside, 2 pools 5. Tamar Cove Motel, Beauty Point, pool 6. Tamar Valley Resort, 1 pool, 1 spa | Pools and Spas | Bacteriological  (Heterotrophic Plate Count, Thermotolerant coliforms/*E.coli, Pseudomonas aeruginosa*) | Varied between sites. | There were no noncompliant results were reported to council. |  |

# 5. DISCUSSION

This is the seventeenth year of reporting on recreational water quality 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.

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 current review of the *Tasmanian Recreational Water Quality Guidelines* and 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 conducting a review of all council recreational water management activities, including approved variations to sampling frequency. Officers will continue to work closely with councils to ensure improved recreational water quality surveillance by councils and will inform them of the findings and recommendations of the review.

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. Alternatively, council may consider installing warning signage that clearly states that insufficient monitoring is conducted at the site to ensure that water quality is reliably suitable for swimming.

The Guidelines 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.

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.

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 a few 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.

Dr Mark Veitch

**Director of Public Health**

# 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](http://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](http://www.dhhs.tas.gov.au/__data/assets/pdf_file/0014/53321/2007_RWQG.pdf)