

## **Medical Officer of Health Report January 2017**

### **Safety of Recreational Water in the Bay of Plenty**

Some days during summer it seems that the whole of New Zealand is visiting the Bay of Plenty and Lakes to play in our beautiful backyard.

More often than not the fun involves some sort of recreational water, whether a hot pool, swimming pool, beach, river or lake.

There are always health risks involved in any activity, and risks of physical injury or drowning will be obvious to most people taking part. What is perhaps not so obvious is the risk of getting an infection or having a reaction should the water be contaminated in some way.

Over the years several of our local public bodies have developed monitoring and notification systems aimed at reducing risks for the public.

#### **Swimming pools**

Arguably the safest places to have fun in the water would be one of the many public swimming pools in our area. Swimming pool operators are responsible for the water quality in their pools, and should have maintenance and monitoring schedules to reduce the risk of infections. The main concern is the potential for gastroenteritis should the water become contaminated by pool users. The Local Authorities (local Councils) are responsible for oversight of the public health safety of pools. Environmental health Officers from the councils can give advice and guidance to pool operators.

#### **Hot pools**

One of the main attractions to our part of New Zealand is the wide variety of public geothermal hot pools. Many of these are commercially run, so will be monitored for bacterial contamination in a similar way to swimming pools as above.

There is however an additional and little known risk to users of hot pools where the water is directly from a hot spring, whether into a man-made or naturally formed pool. The hot water can support some amoebae (single celled organisms) which very rarely can cause a devastating brain infection known as primary amoebic meningoencephalitis. This infection is very rare, but is generally fatal. For that reason it is recommended that hot pool users, particularly of 'natural' or 'feral' pools do not put their head under the water.

#### **Beaches, rivers and lakes**

The many beaches, rivers and lakes in the Bay of Plenty are well used year round for swimming, surfing, kayaking, rafting and many other types of water recreation. They do however pose some risk of infection or irritation to users.

The main issues are bacterial contamination, and potentially toxic algal growths or blooms.

Both seawater and fresh water recreational areas will contain bacteria, and algae. So there is always some risk of gastroenteritis (stomach infection) or skin irritation in using natural recreational waters.

There are however some relatively simple precautions that the public can take to reduce their risk.

Bacterial contamination of streams, rivers and lakes often increases quite markedly for a couple of days after heavy rain as faecal matter from wild and domestic animals is washed from the land into the waterways.

- Swimming in rivers and lakes should be avoided for 48 hours after heavy rain.

Algal blooms in lakes and rivers are often quite obvious, with the water becoming murky, and smelling musty.

- If it looks murky or smells – swim somewhere else

Areas near commercial or recreational boating areas may also be contaminated, as may areas near stormwater outflows.

- Be aware of your surroundings. Avoid boating or commercial areas, and don't swim near stormwater outfalls.

It is obviously not remotely possible to monitor water quality in all of the spot that people use. However to help people make decisions about the risks of using recreational water there is a monitoring programme for around 80 of the most popular locations.

The water quality at more than 80 popular coastal, river and lake recreation sites and shellfish beds in the region are surveyed and monitored by Bay of Plenty Regional Council and Waikato Regional Council from October to March each year.

The waters are tested for bacteria and toxin forming algae species. This includes algal blooms in the lakes and benthic cyanobacteria (which form mats) in rivers and streams. If a recreational water site is found to be significantly contaminated, with risk to public health, Toi Te Ora - Public Health Service informs the public by issuing a health warning and the local council erects warning signs.

In addition to this routine system of health warnings/advice, if there are any known contamination incidents involving recreational water eg a sewerage system blockage causing an overflow into a stream, then the local Council and Toi Te Ora would issue a public health warning for the location.

In addition, a small number of sites which are regularly contaminated have permanent health warnings in place.

Toi Te Ora and the local Councils put quite a lot of effort into making this information accessible.

General advice and up to date information on specific warnings is updated weekly on Toi Te Ora's website<sup>1</sup>, along with recorded health warning information on our 0800 number.

The Bay of Plenty Regional Council also carries advice and warning information on its site<sup>2</sup>, as do our local Councils when their area is affected.

1. [http://www.ttophs.govt.nz/health\\_warnings](http://www.ttophs.govt.nz/health_warnings)
2. <http://www.boprc.govt.nz/environment/water/swimming-water-quality/>

Dr Jim Miller  
Medical Officer of Health