



2012-2013
Summary



Beach Report

Beach Report is EPA Victoria's summertime service that forecasts water quality at 36 beaches around Port Phillip Bay. The service runs from the first day of summer to the Labour Day weekend in March and provides a water quality rating of good, fair, poor or unacceptable.

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EPA has monitored water quality in the Bay since 1983. Forecasts, updated twice a day on the Beach Report website, are based on predicted and current weather conditions, historical beach monitoring data (e.g. is a beach more prone to poor water quality because it is close to a drain), weekly samples, and pollution and other events such as algal blooms and fish deaths.

In addition to daily forecasts, weekly bacterial water quality samples are taken to provide a long-term picture of water quality health at a particular beach. These samples are analysed for the presence of bacteria called enterococci (bacteria found in the stomach of mammals). If levels are, above safe human health levels for swimming and recreation, EPA issues an 'unacceptable' water quality forecast. At this time, EPA also issues an unacceptable water quality alert on the website, Twitter and through the

media. This information is also provided to the council responsible for the beach to install signage at the affected beach. In most cases water quality returns to normal 24-48 hours after rainfall.

Water quality for 2012-2013

EPA found water quality to be mostly good during fine weather at 36 Port Phillip Bay beaches. The majority (88%) of weekly water quality samples were suitable for swimming, with only a handful of sites over the safe health levels.

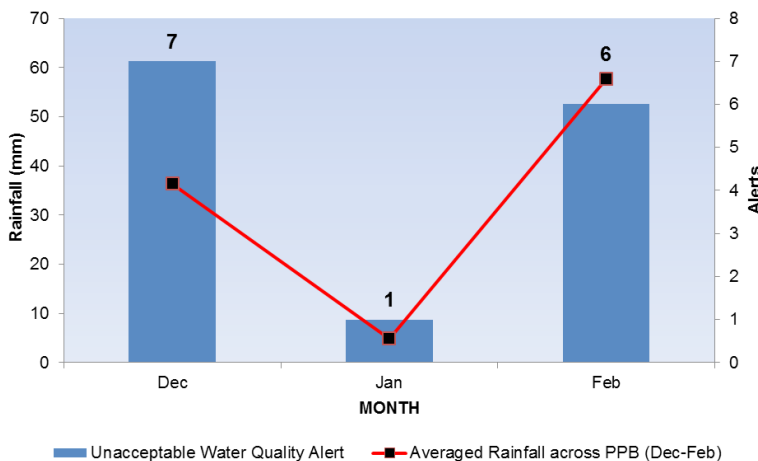
Although Melbourne and Greater Melbourne experienced a drier than average summer, there were periods when rain impacted on water quality. In total, 14 unacceptable water quality alerts were issued in comparison to eight in 2011-12. As the graph shows, heavy rainfall in December and February were positively correlated with unacceptable water quality alerts.

ENHANCEMENTS FOR 2012-2013

Following on from website and forecasting enhancements introduced last summer, in 2012-13 EPA began incorporating broader water quality information in line with the Victorian Government's *A Cleaner Yarra River and Port Phillip Bay* action plan. Specific enhancements to date include:

- Forecasting service expanded to report on algal bloom, pollution and fish kills events via the Beach Report website and the media.
- A four week trial of water quality forecast signs at Altona, St Kilda, Mordialloc and Frankston beaches in partnership with Life Saving Victoria.
- Improved inter agency response to algal blooms in the Bay ensuring the public were kept informed and had the latest information available about where to safely swim.

Unacceptable Water Quality Alerts & Averaged Rainfall across PPB (Dec 2012 - Feb 2013)



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There were also a number of long hot, dry spells in November, January and February 2013 where stormwater drains were more susceptible to 'first flushes' after rain, increasing bacterial levels and causing alerts. The 'first flush' of the stormwater system carries most of the pollution that has built up in the drains. In most cases elevated bacterial levels were often short lived, with bacterial levels returning to low levels within 24-48 hours after rain.

While water quality was generally suitable for swimming during fine weather there were rare occasions when bacterial levels were higher than expected. High bacterial levels during dry weather is often due to increased pressure on sewer systems during holiday periods resulting in spills, bather shedding (bacteria shed by bathers body), unreported illegal discharges or naturally occurring, and large deposits of seagrass, which can contain high bacterial levels from bird faecal matter and breakdown.

In early January 2013 EPA responded to two sewer spills at Half Moon Bay and Portsea. The spill at Half Moon Bay was detected by EPA's Beach Report weekly sampling, which returned high bacterial levels and warranted further investigation by EPA. The cause was found to be a leaking private sewer pipe in the foreshore area.

The second spill at Portsea beach was reported to EPA by a member of the public. Investigation by EPA traced the spill to an overflow from a failed pump within a private sewage pump well in the foreshore reserve and the problem was fixed. Both incidents were widely reported via the media.

There were also two confirmed algal blooms in Port Phillip Bay this season at Hobsons Bay in December and February, and Mothers beach, Mornington in February. Both incidents marked an integrated and improved response by various government agencies as part of the Government's *A Cleaner Yarra River and Port Phillip Bay* action plan to ensure the public were kept informed through the Beach Report website, the media and signage at impacted beaches.



In early January a sewer spill at Portsea Beach affected water quality.



The public were kept informed on an algal bloom at Mother's Beach through EPA's Beach Report.

Water quality signs on trial at Melbourne beaches

A new water quality forecasting signage service was this season trialled for a month at four bayside beaches as part of the Victorian Government's *Yarra River and Port Phillip Bay* action plan.

Run in partnership between EPA and Life Saving Victoria, visitors to Altona, St Kilda, Mordialloc and Frankston beaches could see for the first time the current water quality rating for their beach.

Beachgoers were surveyed on their reaction to the new signage and results will be used to evaluate and inform the expansion of signs to other life saving club beaches.



Future direction

With many people living in the Port Phillip Bay or Yarra River catchments, how we look after these natural assets is an important shared responsibility.

This year as part of the Victorian Government's *A Cleaner Yarra River and Port Phillip Bay* action plan, EPA is working with other key organisations involved in waterway and environment health to develop:

- an online 'one stop shop' so Victorians can access up-to-date information about water quality across Port Phillip Bay and the Yarra including beach advisories and algal blooms
- a report card that summarises the Yarra and Bay's water quality and health.

An in depth analysis of the 2012-13 Beach Report will be released prior to the start of the 2013-14 season via EPA's website (www.epa.vic.gov.au).

FAST FACTS

- **Best beaches (no elevated enterococci levels over the summer) - Sorrento, Seaford, Carrum, Eastern, Portarlington, St Leonards.**
- **14 unacceptable alerts - meaning sampling undertaken at a particular beach confirms water quality may not be safe for human health, making it unsuitable for swimming.**
- **Water quality was suitable for swimming 88% of the time.**
- **128,197 page views and 386 twitter followers.**
- **Highest page views (6,144) on 4 January - with Melbourne's mercury sweltering at 41° and sewer spills at Half Moon Bay and Portsea beach.**