

Anglesea borefield trigger approach – information sheet

This model represents how Barwon Water will respond to environmental triggers at the two key bores - P8 and P19 – highlighted in Barwon Water’s Bulk Entitlement for Anglesea borefield.

These bores measure groundwater levels in the perched water table (P8) and in the upper eastern view formation (P19).

It is the combination of groundwater levels in both of these bores that is important. If groundwater levels in both bores fall below a certain threshold level, then we have exceeded our trigger and action must be taken to prevent any potential damage to groundwater dependent ecosystems.

Exceeding a trigger means the groundwater level has fallen below the threshold set for that month. The threshold level (also known as a “trigger”) fluctuates, to account for climatic influences on groundwater levels. ⁱ

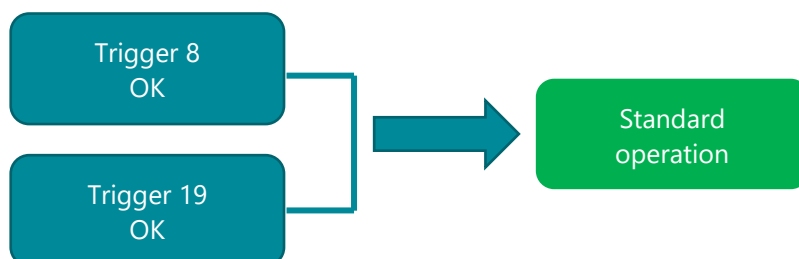
Triggers have been set at a conservatively low level to ensure we receive an early alert, prior to any potential damage occurring.

Scenario one

Standard operation involves maintaining compliance with our Bulk Entitlement, issued by the Victoria Government. Under the terms of the bulk entitlement, we are licensed to extract a maximum of:

- 40ML in any day;
- 10,000ML in any year; and
- 35,000ML in any five year period.

We will operate the borefield below these limits to ensure groundwater levels remain above the triggers that have been set to protect groundwater dependent ecosystems.

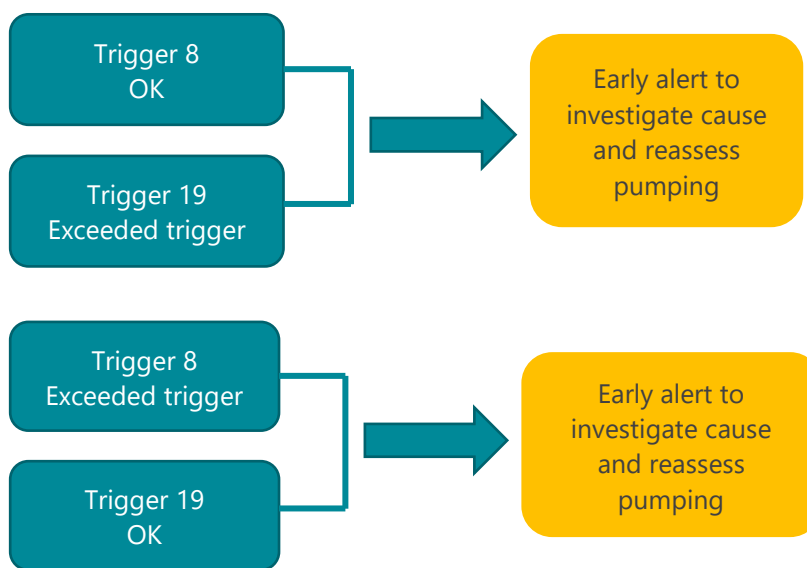


Scenario two

Early alert to investigate and re-assess: If we exceed one trigger – either P8 or P19 – we will investigate the cause (for example, climatic variation) and whether we are nearing the second trigger.

If investigations show the second trigger is close to being met, we will take extra precaution, reducing or ceasing pumping to allow groundwater levels to recover.

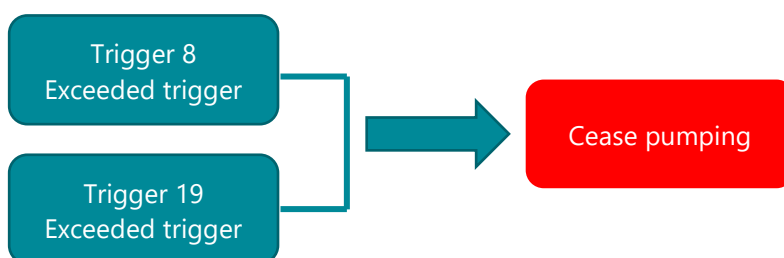
Meeting the P8 trigger may be due to climatic influences – for example, a few hot, dry days in summer can lead to the triggers being exceeded, without pumping. The P19 trigger is more likely to be impacted by drawdown of the lower eastern view formation (LEVF) and upper eastern view formation (UEVF). Drawdown means a lowering of the body of water in those aquifers.



Scenario three

Cease pumping: If we exceed both triggers – P8 and P19 – we will cease pumping to allow groundwater levels to recover.

We have set the triggers conservatively low to ensure we protect the environmental values and health of groundwater dependent ecosystems. Barwon Water has committed to ceasing pumping if both triggers are met, even if we determine the cause is climatic variation.



ⁱ The threshold level (also known as a "trigger") fluctuates. It is determined by comparison to a control bore, to account for climatic influences on groundwater levels. The control bore (P17) is located in the Salt Creek swampland outside the predicted area of influence of any operation of the Anglesea borefield. This means the control bore provides a useful comparison of the natural variation in groundwater levels due to seasonal conditions.