

Reporting on release or event

Legacy Way – release of water with low pH
from water treatment plant



Report – Legacy Way release event

Purpose

This report has been developed and published to the website for Transurban Queensland as required by Appendix 1, Schedule 3, Part 3, condition 32(c)(IV)¹ of the Coordinator-General's Report (**Report**) for the Legacy Way tunnel asset. It is in relation to an event where water quality monitoring indicated an exceedance of the water quality release measures specified in Appendix 1, Schedule 3, Part 3, Table 16 of the Report (**Event**).

This initial report incident report provides a description of the Event, and a statement describing the corrective actions and mitigation measures implemented to ensure no further exceedance occurs.

Nature of the Event

A preliminary investigation has found that treated water discharged from the water treatment plant at Legacy Way during the period from 19:00 on 27 June 2018 until 16:00 on 29 June 2018, had a pH below the lower range criteria of 6.5.

When the operator became aware of the release

Transurban first became aware of the discharge at 12:00 on Friday 29 June 2018, as a result of routine weekly water quality monitoring.

Corrective actions and mitigation measures

Immediately after becoming aware of the discharge, steps were taken to prevent further release, with discharge ceasing at 16:00 on 29 June until the cause could be identified and addressed.

Prevention of further exceedance

A preliminary investigation identified that two events appear to be the cause of the plant allowing a discharge to occur with a pH below the required criteria:

1. A replacement acid dosing pump was installed on Wednesday 27 June 2018, and was left in manual operation instead of being switched to automatic mode; and,
2. An issue with the logic within the plant control system caused the system to interpret the pH readings from the in-line sensors to be 7 (within the acceptable discharge range), when in fact the pH was below 6.5.

Further actions to be undertaken

The acid dosing pump was reset to automatic mode, and monitoring was undertaken to ensure the pH of treated water returned to within the acceptable range (6.5 - 8.5) prior to recommencing discharge from the plant.

In the short-term the plant control logic will be set to prevent a discharge where the pH reaches 7.05 or below. In the medium-term, the control logic will be reset to recognise values with a range greater than the set points for ceasing the discharge (6.5 - 8.5).

Transurban will undertake further investigation, and a more detailed report was submitted to the Department of Environment and Science in accordance with the obligations set out in the Report.

¹ Please note that the number for condition 32 of the Report was modified by Change Report # 8.