

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 (TQ) 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 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

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

TQ 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

An investigation identified that two events appear to have been 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 a level within the acceptable range (6.5 - 8.5) prior to recommencing discharge from the plant.

In the short-term the plant control logic has been set to prevent a discharge should the pH reach 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).

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