Simpson Stormwater Management System Stage 2

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This paper presents the integrated catchment management scheme adopted by Council to address a flood management problem, in the East Warrnambool/ Simpson Street area.

The Warrnambool City Council was presented with a significant flooding problem in this fast developing catchment, with both retail development and residential growth filing in the greenfield site. The Simpson Street catchment is serviced by an unlined drainage tunnel located in a low point, constructed as a Whitlam era RED employment Scheme. The Tunnel is both under capacity and failing due to the increased run-off and surcharging storm event from the catchment.

To help alleviate the issue, a total catchment upgrade was designed to divert up to 100 ha of catchment away from the tunnel, into the neighbouring Russel Creek.

To address potential flooding issues in the Russell Creek Catchment, a large retarding basin was constructed in the centre of the Warrnambool racecourse to store and discharge major storm flows in a controlled manner.

The diversion of water to the racecourse also provided an opportunity to harvest water for the irrigation needs at the race course, which uses up to 200 ML per annum irrigating the track and environ of the course. Much of the water was being sourced from ground water bores at the Racecourse, which were rated as poor with high salt and calcium levels, leading to stunted turf growth and leaf burn. A better source of water was needed.

The project is comprised of diversion drain, gross pollutant trap, sediment basin, retarding basin, stormwater harvesting pump station and storage basin.

The project was first conceived in 2008, and after an extended period of negations and investigation, was signed into agreement in August 2018 with the agreement of Council, the Warrnambool Racing Club and the Department of Environment, Land, Water and Planning (DELWP).