



## CASE STUDY

### FAST FACTS

**Client:** Macedon Ranges Shire Council

**Site:** Kyneton Landfill (closed)

**Location:** Kyneton, Victoria

**Date:** 2021



# Kyneton landfill leachate pumping system

## Problem

Rising leachate levels in the closed Kyneton Landfill was the challenge HydroTerra was commissioned to overcome. Elevated leachate levels were exceeding regulatory requirements. The elevated leachate levels were potentially impacting the groundwater quality beneath the site. Leachate extraction options needed to consider a limited power supply, the need for continuous monitoring and automation of pumping infrastructure.

## Integrated solution

HydroTerra designed, installed and commissioned three solar leachate pumping systems which:

- Incorporate three leachate storage tanks
- Enable ongoing remote access to water quality data and oversight of the site
- Provide 24/7 remote operation, automatically triggering pumps to remove leachate from the landfill and store it in the tanks for future disposal

## KPIs achieved

- Leachate levels controlled to be continuously below compliance levels
- Efficient pumping system
- Leachate storage tanks sufficient to meet extraction requirements
- Reduced costs associated with site management
- Reduced impacts on groundwater quality beneath the site

# Kyneton landfill leachate pumping system



## Key stats

- 3 x pumping systems
- 3 x interlinked storage tanks with authorised access
- More than 1km of leachate piping
- 4 x submersible level sensors
- 3 x flow meters
- An estimated 42 million+ data points captured annually

## Our service

- 3 x HydroTerra team members onsite
- 10 x days install & commission
- 1 x report
- 24/7 ongoing system diagnostics and alarms
- Option for remote support and maintenance visits



*"Macedon Ranges Shire Council engaged HydroTerra to design and construct an automated solar leachate pumping system for a closed landfill site, incorporating a telemetry system for easy access and reporting.*

*HydroTerra was awarded the contract after presenting the best value for money project with a very detailed methodology. We were confident with our decision as they had completed a similar project successfully at one of our other landfills.*

*Throughout the project, we were very impressed with the level of communication before, during and after the onsite field works. HydroTerra provided a detailed timeline, enabling us to plan around the field works.*

*The installed system has performed beyond expectation and the online data streaming system allows us to monitor extraction data in real time.*

*Macedon Ranges Shire Council would most definitely engage HydroTerra to undertake future works in this space."*

