

Enviro Facts



HAZELWOOD POWER STATION

Hazelwood Cooling Pond water temperature

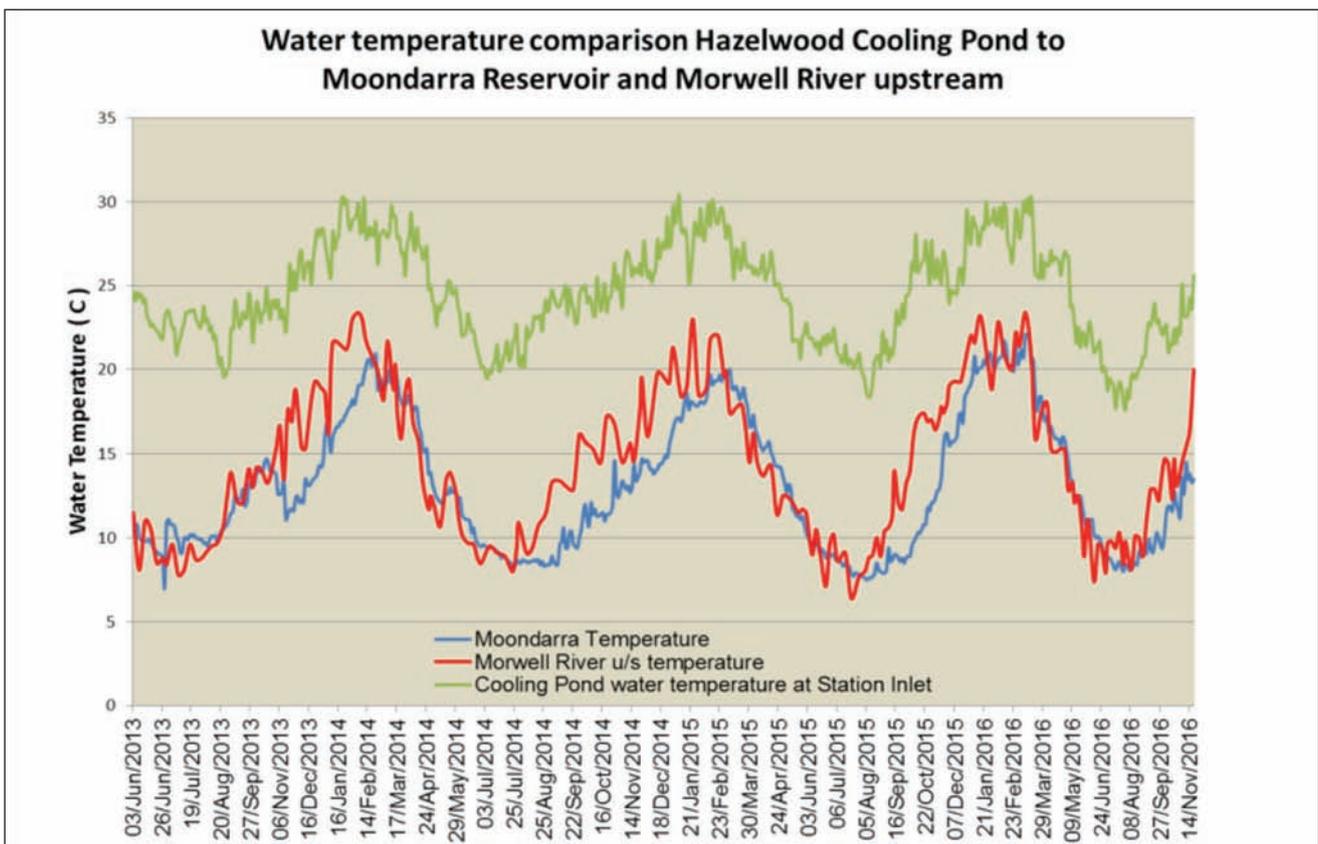
The Hazelwood Cooling Pond is a large body of water (approx. 500 hectares) presently heated by absorbing heat during the process of condensing steam to water as the cooling water passes through the Power Station condensers. On a daily basis, this amounts to cycling the entire water volume of the cooling pond (up to 31GL) through the station condensers every 8-10 days, which is up to 4000 ML/day at full operation.

In addition, there is artesian water extracted from beneath the open cut coal mine for mine stability.

This hot water at around 45°C is discharged at an average annual flow rate of around 450 l/s (around 40 ML/day) to the Cooling Water Outlet channel from the station.

Although the artesian water is hot, its overall impact on the water temperature is minimal as it represents around one per cent of the hot water inflows to the cooling pond.

There are also natural inflows from the Churchill area through Eel Hole Creek north and south branches, which are at natural temperature conditions (similar to Morwell River).



The graph above shows the typical cooling pond water temperatures over recent years, giving a comparison to the Morwell River water temperatures upstream of Hazelwood's discharge and also the typical temperature for Moondarra Reservoir. The cooling pond temperature with the station operating is around 9-10 degrees warmer than the background temperatures of Morwell River or the Moondarra Reservoir, both of which show typical effects of summer and winter temperatures. The same summer/winter effects occur in the cooling pond, even with its elevated temperature because of the power station.

Enviro Facts

HAZELWOOD MINE



Eastfield Eastern Batters Rehabilitation

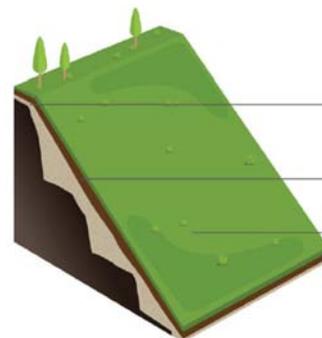
After the extensive rehabilitation project of the Northern Batters in the Hazelwood Mine, attention is now turned to the Eastfield Eastern Batters.

Work has started near the area known as the Knuckle (pictured below), which can clearly be seen from the Princes Freeway, on the edge of the Morwell Township. The rehabilitation of this batter and the Eastfield Northern Batters (immediately below the Morwell Main Drain) are part of the overall rehabilitation plan for the Mine.



Rehabilitation of Mine batters typically involves:

- rehabilitation design and planning.
- ground stability assessment of the proposed design.
- removal of old mining infrastructure.
- shaping of batters to the desired profile.
- placement of overburden on newly-profiled batters.
- spreading of topsoil prior to revegetation.



Rehabilitation Process

- Batter is cut down and covered with clay capping.
- Then covered with a layer of topsoil.
- Topsoil is then sown with grass.