Latrobe Valley Regional REHABILITATION STRATEGY

Alternative Water Options

Through the Latrobe Valley Regional Rehabilitation Strategy (LVRRS), the Victorian Government has committed to further exploring the potential for alternative sources of water to be used for mine rehabilitation in the Latrobe Valley.

Alternative water is water from sources other than the Latrobe River system or Latrobe Valley aquifers, such as recycled water, desalinated water or treated stormwater. Alternative water sources are less reliant on rainfall and so can potentially provide a reliable source of water in a drying climate.

THE POTENTIAL FOR ALTERNATIVE WATER FOR MINE REHABILITATION?

Climate change projections for the Latrobe River system indicate a wide range of possible futures for water availability. At the dry end of the range of possible futures tested by the Latrobe Valley Regional Water Study, water availability could be almost halved by 2050. Because of this, mine rehabilitation cannot rely on water from the Latrobe River system. Alternative sources of water have the potential to provide a regular and reliable source of water, even in dry years, which would also have the effect of providing greater certainty and hastening the rate of rehabilitation progress.

The Latrobe Valley Regional Water Study (LVRWS) identified a range of possible alternative water sources and assessed their suitability for mine rehabilitation. It considered the potential volumes that could be supplied from both new and existing alternative water sources, water quality and infrastructure costs, amongst other things.

Any source of alternate water would need to be treated to a quality that is suitable for the intended use of the mine waterbody, meet regulatory and environmental standards, and reflect community expectations.

Recycled water and desalinated water can potentially offer the large volumes needed, and at rates desired by the mine operators. Both options would require significant investment due to infrastructure costs, such as building a pipeline from a significant water source to the Latrobe Valley, and ongoing treatment and maintenance costs.

Stormwater sources are likely to be relatively small but could contribute to mine rehabilitation. For use in any mine waterbody, stormwater would also require infrastructure and treatment.

Untreated sea water is not an appropriate water source for mine rehabilitation. This is due to concerns over seepage from the pit into groundwater aquifers, which would make it unusable by other users like farmers.

IMPLEMENTING THE LVRRS

The LVRRS encourages the Latrobe Valley electricity generators and mine licensees to collaborate with government and regional stakeholders to further explore the feasibility of using alternative water sources for mine rehabilitation. These assessments will build on the LVRRS and further analyse the likely infrastructure needs, treatment requirements and associated costs and benefits. The assessment would also consider co-opportunities that could be delivered for regional development, irrigation, industry and jobs from additional water being made available within the region.

VICTORIA State Government

WHAT IS DESALINATION

Water desalination is the process of creating fresh water by removing saline (salt) from bodies of saltwater. The Victorian Desalination Plant in Wonthaggi has an annual production of 150 billion litres (150 gigalitres) and is an essential part of the state's water grid to supply drinking water to Melbourne and connected systems.

WHAT IS RECYCLED WATER

Recycled water is domestic or industry wastewater that has been treated to a standard that is suitable for its intended use.

In Victoria, once treated, recycled water can be used for a variety of non-drinking purposes including farming and irrigation of parks, gardens and sport grounds. Increasing community expectations regarding saving water in a drying climate and better public understanding about how it can be used safely has meant an increased interest in recycled water.

WHAT IS STORMWATER

Stormwater is surface water that runs off an urbanised landform. Urban landforms typically have hard surfaces such as roads and rooves which means less water infiltrates into the landscape and more surface water flows off the catchment. Harvesting schemes are generally relatively small-scale and more often form part of new urban developments. This is because they require significant land to capture and store the water. This water usually requires some treatment to ensure it is suitable for its intended use. The Latrobe region's mine operators manage stormwater on their sites.

CONTACT US

For further information, you can find a copy of the Latrobe Valley Regional Rehabilitation Strategy and related factsheets online at **earthresources.vic.gov.au/lvrrs** or by contacting the LVRRS Project Team via email at **lvrrs@ecodev.vic.gov.au** or on **(03) 5184 2000**.

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