JANUARY 2026

Hexham Wind Farm

FACT SHEET

Groundwater

The proposed Hexham Wind Farm (the project) is located between Hexham, Caramut and Ellerslie in the Moyne Shire in south-west Victoria. The project would incorporate up to 106 wind turbines with a total height of up to 260 metres from ground to blade tip. The project would also include an on-site terminal station and battery energy storage system (BESS) and other associated infrastructure such as access tracks.

As part of the Victorian Government's planning and approvals process for major projects, Wind Prospect has prepared an Environment Effects Statement (EES) for the proposed Hexham Wind Farm. An EES is a requirement under the Environment Effects Act 1978, and includes a detailed assessment of a wide range of environmental and social aspects such as biodiversity, ecology, historical heritage, Aboriginal cultural heritage, landscape and visual amenity, traffic and transport, noise, socioeconomic and surface and groundwater.

Extensive research and community and stakeholder consultation has been undertaken to avoid and mitigate any potential adverse effects on the environment and the social fabric of the community during construction, operation and decommissioning of the project. Wind Prospect recognises the value of the natural and built environment in which the project is based and understands and respects the community's desire to protect both the environmental and social landscape that has existed for many years.

Assessment

As part of the EES, Wind Prospect engaged Water Technology Pty Ltd to prepare a Groundwater Impact Assessment. This assessment has been prepared in accordance with the Victorian Government Planning Minister's scoping requirements for the assessment of environmental effects, relevant legislation and government guidelines, and stakeholder and community consultation. The assessment describes the groundwater within and surrounding the project site and defines key values associated with it. It assesses potential project impacts on these values, and measures to be taken to avoid and minimise these impacts.

The Flora and Fauna Assessment by Nature Advisory Pty Ltd also considered aspects related to Groundwater Dependent Ecosystems (GDEs).

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How the assessment was carried out

The assessment of potential project impacts to groundwater was informed by:

- A desktop review of various databases, maps, and reports to develop an understanding of the existing groundwater environment within the project site
- Investigation drillholes and borelogs from existing bores to characterise the surface and underlying geology
- Development of a hydrogeological conceptual model
- Hydraulic testing, water level monitoring and groundwater quality sampling to estimate inflow rates and drawdown around the proposed temporary on-site quarry.

Groundwater refers to a water resource beneath the surface of the earth that forms when water seeps into the ground and is collected within permeable rock, known as an aquifer.

Potential impacts to groundwater from wind farm projects may include lowering of groundwater table resulting from water pumping during construction activities, newly built impermeable infrastructure creating barriers to groundwater recharge and movement, and accidental spills of hazardous chemicals resulting in groundwater contamination.

Findings

The Groundwater Impact Assessment found that the impacts of the project on groundwater availability, supply and quality would be low to negligible.

Key findings concluded:

- The Quartinary Aquifer present in the proposed project area was identified to be sensitive to surface disturbance. Trenching works for laying of cables is planned for this area however impacts to the aquifer were identified to be low due to the localised and temporary nature of works.
- At the proposed quarry site, the presence of potential unmapped springs resulting from quarry excavation is considered unlikely; and potential for unmapped springs resulting from wind turbine foundation excavation and dewatering may be avoided by detailed analysis for turbine location selection, known as 'micro-siting'.
- Impacts to groundwater dependent ecosystems and wetlands are not expected at the water table aquifer during quarry excavation and pumping of groundwater, known as 'dewatering'.
- The influence of proposed infrastructure including turbine foundations and hardstands on groundwater infiltration and lateral flow was found to be localised and is unlikely to affect groundwater availability and levels.
- Dewatering may be required as part of excavations for the construction of wind turbine footings, where groundwater aquifers are very shallow (less than 3.5m) however impacts are unlikely to materially affect groundwater users as the construction period for turbine foundations and trenches is short and temporary.
- As the proposed temporary on-site quarry excavation depth is 14 metres, and the depth to groundwater is estimated to range from 9 to 13 metres, it is expected that dewatering of the quarry pit would be required during operation. Any reduction in groundwater recharge at the water table aquifer resulting from foundation excavations would be localised and can be mitigated by appropriate drainage design.

Managing risks to groundwater

The following design measures have been implemented to avoid potential groundwater impacts to local groundwater users and environmental values:

- Applying buffers around aquatic and terrestrial groundwater dependent ecosystems, and wetlands.
- Minimising construction time for turbine foundations.
- Positioning the temporary on-site quarry where the water table is deep and more than 500 metres from potential groundwater dependent ecosystems and wetlands.
- Developing the temporary on-site quarry in stages with progressive backfill to minimise dewatering requirements.
- Designing the temporary on-site quarry as a 'zero discharge' site, with all surface water and groundwater to be managed within the quarry site using retention basins.
- Turbine foundations shaped to allow rainwater run-off and to re-establish natural recharge next to these features to minimise impacts to groundwater recharge and flow.
- Avoiding vegetation removal through project design to help mitigate impacts to groundwater recharge.

The following management measures will also be applied:

- Assess the likely occurrence of groundwater in foundations and trenches and potential dewatering volumes prior to construction.
- Careful positioning of the turbine foundation excavations and trenches to avoid any unmapped springs and watercourses identified during detailed design works.
- Consult with relevant landowners about potential impacts to groundwater bores to limit disruption to water access and support identification of mitigation measures or alternative supply options.
- Develop a Water Management Plan which includes undertaking baseline groundwater level and quality (pH and salinity) monitoring, groundwater fauna (stygofauna) monitoring at the temporary on-site quarry, detailed description of quarry and foundation excavation dewatering activities, and operational groundwater monitoring.
- Measures to minimise groundwater impacts resulting from construction including revegetation of disturbed areas, backfilling using excavated material where possible and selecting optimal locations to avoid unmapped springs and watercourses.
- BESS design to include a retention basin to capture firefighting water and prevent uncontrolled release of water to the environment.
- Develop an Environmental Management Plan for storage and handling of hazardous substances to prevent liquid leaks and spills and potential pollutants from entering the environment.

Summary

The Groundwater Impact Assessment prepared for the EES concludes that the project can be built and operated with low to negligible impact on groundwater users and groundwater quality, providing design measures and management controls are implemented.

Next steps

The Groundwater Impact Assessment and Flora and Fauna Assessment have been submitted as part of the EES documentation. The EES and all technical assessments will be placed on public exhibition for a period of 30 days. You can review the EES and technical reports on the Hexham Wind Farm website at: www.hexhamwindfarm.com.au/ees.

Formal submissions received from the community during the public exhibition period will be summarised in a Submissions Report and considered as part of the Minister's Assessment of the project.

Have your say

During the public exhibition period, you have the opportunity to provide a formal submission on the proposed Hexham Wind Farm. There will be opportunities to meet the project team and hear from technical experts about the proposed project, the EES and technical studies.

Visit the Community page (hexhamwindfarm.com.au/community) of the website for more information on our upcoming in-region engagement activities and ways to get in touch.

Wind Prospect respectfully acknowledges the Traditional Owners of the land on which our office and each of our projects are located. We also acknowledge and uphold their continuing relationship to the land and pay our respect to their Elders past, present and emerging.

Contact

For more information or to speak directly to a Wind Prospect team member contact us.

If you need an interpreter, please call 13 14 50. If you are deaf and/or find hearing or speaking with people on the phone difficult, please contact the National Relay Service on voice relay number 1300 555 727, TTY number 133 677 or SMS relay number 0423 677 767.

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