

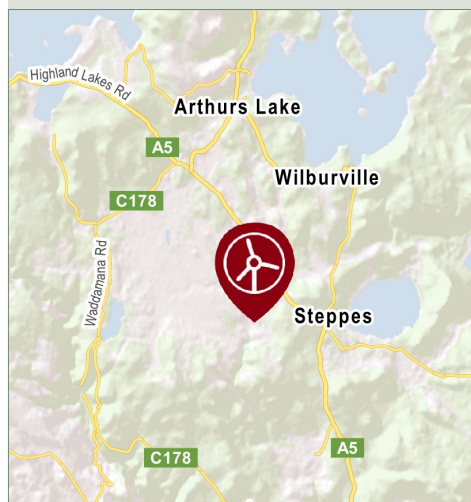
# St Patricks Plains Wind Farm

Project Update

September 2021



## Location



The site proposed for St Patricks Plains Wind Farm, south-east of Miena, is located within Tasmania's Midlands Renewable Energy Zone (REZ).

The Midlands REZ is one of three zones in Tasmania identified by the Australian Energy Market Operator (AEMO) as optimal for new projects to support Tasmania's renewable energy growth and meet the state's world-leading renewable energy target.

The site has strong, consistent winds, is made up of large private landholdings and includes a powerline with available capacity, making it ideally located for wind energy generation.

## Layout revision

Further revision of the wind turbine layout has been completed and three wind turbines have been removed to reduce visual impacts and align with community feedback.

Based on the collated data from eight seasons (two years) of eagle utilisation surveys and other studies including flora and fauna, aboriginal and cultural heritage, electromagnetic interference, noise and visual impact the final layout for the wind farm includes 47 wind turbines. For the current layout please see the map on the back page.

## Noise assessment information

**As planned noise assessment briefings with our specialist noise consultant have had to be postponed this update is focused on noise assessment information.**

Due to COVID-19 travel restrictions noise assessment briefings have been postponed until further notice. Out of consideration for the many local residents who are planning to attend and may not have a reliable internet service, these will not be held via video conference and will be rescheduled as soon as practicable.

The noise briefings will be with an independent specialist from Marshall Day Acoustics and tailored sessions will be held for residents and property owners located to the east and west of the site in Flintstone, Arthurs Lake Road, Wilburville, Shannon and Penstock.

To register your interest in attending please contact the project team (details on back page). New dates and details will be advertised when confirmed and registered attendees will be notified directly.

We thank community members for their understanding and patience.

## Next steps

Following completion of specialist reports Epuron is preparing the Environmental Impact Statement (EIS) for lodgement. After it has been accepted by the Environment Protection Authority (EPA) and Central Highlands Council it will go on public exhibition and Epuron will hold community information sessions to give community members an opportunity to discuss the EIS with the project team.

## St Patricks Plains Wind Farm planning and assessment process

- 1 Site selection and preliminary investigations
- 2 Referral for review under the Commonwealth EPBC Act
- 3 EPBC Act referral decision: controlled action
- 4 Notice of Intent (NOI) lodged with the Environment Protection Authority (EPA) Tasmania
- 5 Project Specific Guidelines for the Environmental Impact Statement (EIS) issued by the EPA

WE  
ARE  
HERE

Studies, assessments,  
finalising site design

- 7 Development application (DA) and EIS submitted to Central Highlands Council
- 8 DA and EIS referred by Council to the EPA
- 9 Preliminary assessment by Council and the EPA
- 10 DA and EIS on exhibition for public submissions
- 11 Responses to requests for additional information (stakeholders/public submissions (if required))
- 12 Assessment by the EPA Board
- 13 Determination by the EPA Board and approval conditions provided to Council and the Department of Agriculture, Water and the Environment (DAWE)
- 14 Determination by DAWE
- 15 Assessment by Council
- 16 Determination by Council

### Register for email updates

To receive these project updates via email register your details at:  
[epuron.com.au/mailling-list-details/](http://epuron.com.au/mailling-list-details/)

# Wind farm noise and human health

## Australian Medical Association

AMA Position Statement – Wind Farms and Health (2014)

*“The available Australian and international evidence does not support the view that the infrasound or low frequency sound generated by wind farms, as they are currently regulated in Australia, causes adverse health effects on populations residing in their vicinity. The infrasound and low frequency sound generated by modern wind farms in Australia is well below the level where known health effects occur, and there is no accepted physiological mechanism where sub-audible infrasound could cause health effects.”*

Further information can be found on the AMA website at:

[ama.com.au/position-statement/wind-farms-and-health-2014](http://ama.com.au/position-statement/wind-farms-and-health-2014)

## National Health and Medical Research Council

Statement: Evidence on Wind Farms and Human Health (2015)

*“After careful consideration and deliberation of the body of evidence, NHMRC concludes there is currently no consistent evidence that wind farms cause adverse health effects in humans.”*

Further information can be found on the NHMRC website at:

[nhmrc.gov.au/your-health/wind-farms-and-human-health](http://nhmrc.gov.au/your-health/wind-farms-and-human-health)

## Australian Energy Infrastructure Commissioner

For the Australian Energy Infrastructure Commissioner’s observations and recommendations in relation to wind farms and health matters visit the Commissioner’s website at:

[aeic.gov.au/observations-and-recommendations/health-matters](http://aeic.gov.au/observations-and-recommendations/health-matters)

# Project benefits

**EMPLOYMENT** - The project is expected to provide up to 200 jobs during the construction period and around 20 full-time jobs during operation for the life of the wind farm.

**ECONOMIC BOOST** - Construction would provide work for Tasmanian-based contractors and a significant boost to the local economy, especially for surrounding accommodation, retail, service and hospitality businesses. Contractors and businesses can email [info@stpatricksplainswindfarm.com.au](mailto:info@stpatricksplainswindfarm.com.au) to register interest in providing services or facilities.

**COMMUNITY FUND** - Epuron is proposing a Community Fund of \$3,000 per installed wind turbine annually (indexed) to support local initiatives. This would provide at least \$140,000 per year and amount to more than \$3.5 million over 25 years.

**CLEAN ENERGY** - Growth in Tasmania’s renewable energy capacity will deliver affordable, clean, reliable electricity to households and businesses and create economic opportunities for local communities. The St Patricks Plains Wind Farm would contribute up to 300 megawatts to the Tasmanian grid and support the Tasmanian Government’s world-leading CO<sub>2</sub> emissions-reducing target of 200% renewable energy generation by 2040.

# St Patricks Plains Wind Farm

## Noise Assessment Information

### Noise assessment and limits

Noise limits are prescribed by state planning authorities and a technical noise assessment by acoustic specialists is a key requirement for the project's Environmental Impact Statement (EIS).

Noise assessment involves applying the noise levels from a candidate wind turbine at all proposed wind turbine locations across the site and predicting the noise associated with the operation of the full wind farm, in accordance with the New Zealand Standard 6808:2010 *Acoustics – Wind farm noise* (NZS 6808:2010).

Background noise levels are monitored for various wind speeds at a number of locations around the site to understand the surrounding sound environment into which the noise of the wind farm will disperse.

A noise contour map is created to show the sound output of the wind farm and this is modelled at each of the background noise locations to ensure that the wind farm would comply with the required limits.

The noise limit at any non-involved residence is specified to be the higher of 40 dB(A) or the background noise level plus 5 dB for any wind speed. See diagram below for reference to the dB levels of familiar sounds.

### Noise compliance and monitoring

**Planning** - Compliance with the EPA's noise limits must be demonstrated using predictive modelling based on the candidate wind turbine.

**Post approval** - When the actual wind turbine to be installed is selected the noise assessment must be repeated to demonstrate to the EPA again that it is predicted to comply with the limits.

**Operation** - After installation the wind farm is subject to noise monitoring and audits to ensure it is noise compliant during operation.

### Candidate wind turbine

The candidate wind turbine used for the noise modelling for St Patricks Plains Wind Farm is the Vestas V162 5.6 MW, dimensions below.

Hub height: 150m  
Blade length: 80m  
Rotor diameter: 162m

### Assessment findings

A comprehensive technical noise assessment has been undertaken by leading acoustic consultants Marshall Day Acoustics as per the EPA's requirements.

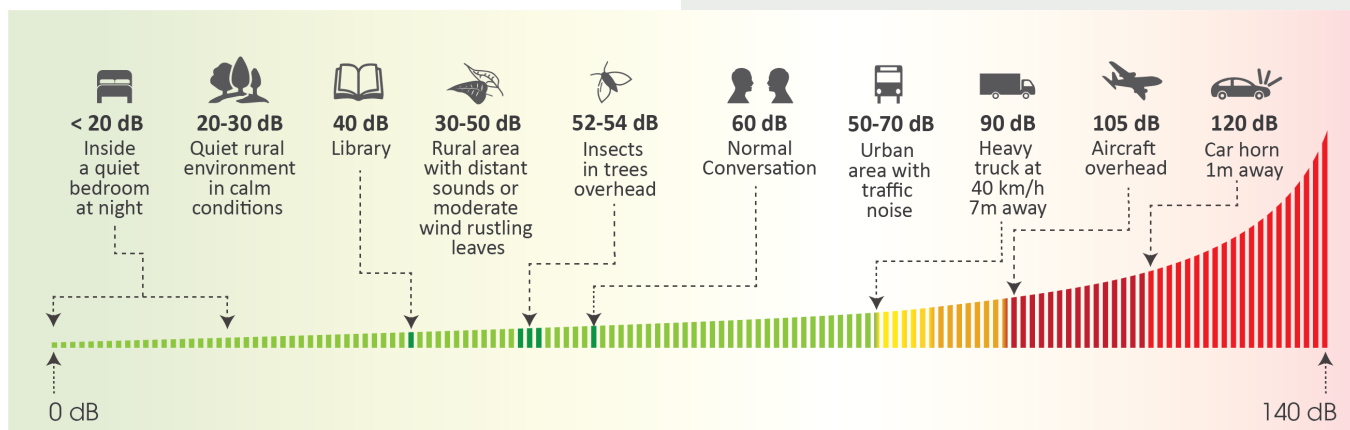
**The predicted noise levels at all residences around the wind farm demonstrate that the project would comply with the applicable noise limit.**

The full Noise Assessment will be in the EIS and part of the documents put on public exhibition.

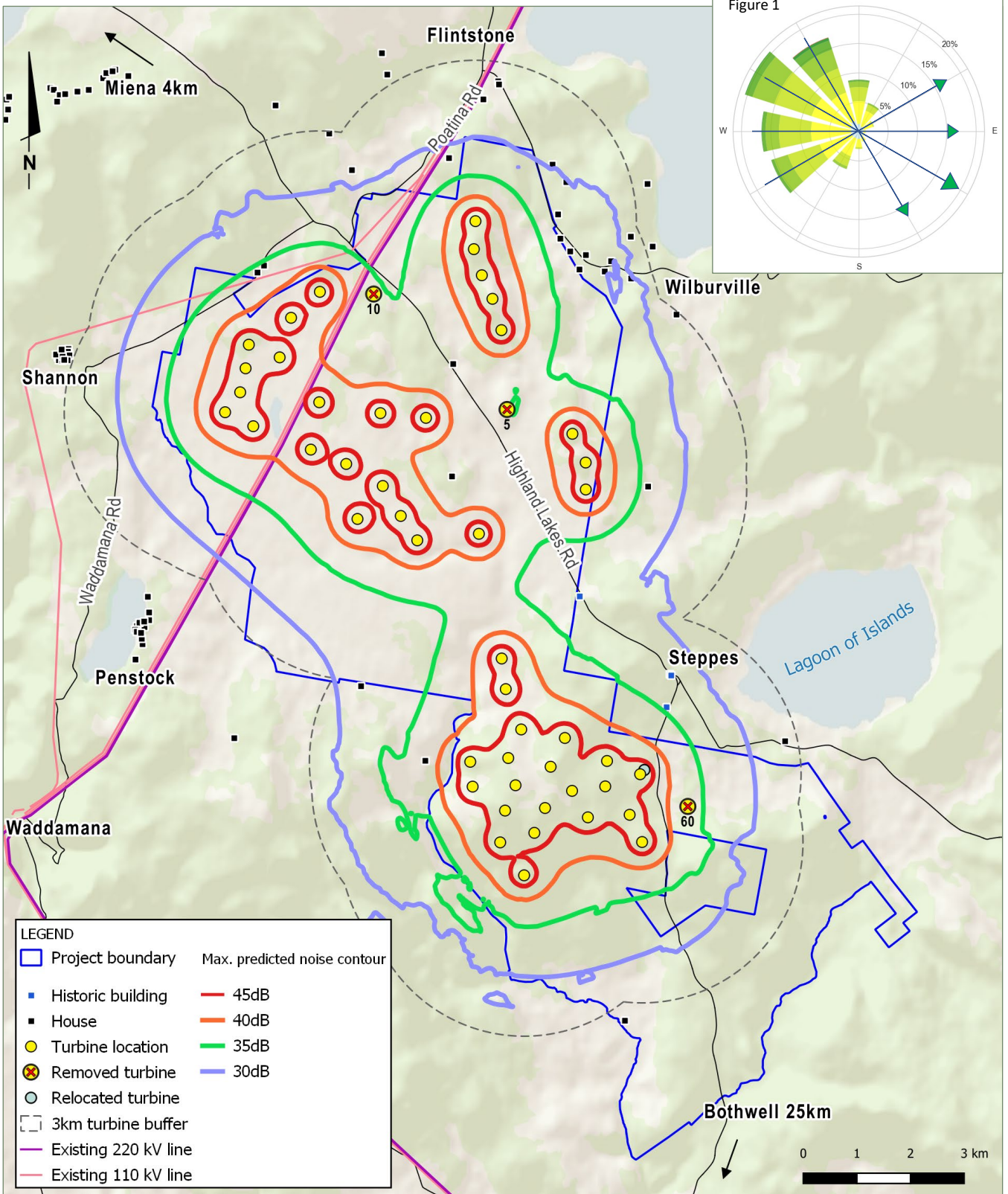
For a map showing maximum predicted noise levels across the site and a graphic of recorded wind directions please see overleaf.

### About Marshall Day Acoustics

Established in 1981 Marshall Day Acoustics is one of the world's leading and most respected acoustic consultancies. MDA provides specialist technical acoustic services to many industries including environmental acoustic assessments of energy infrastructure. The company has extensive expertise in the measurement, prediction and assessment of wind farm noise, and has been involved with a wide variety of wind farm projects throughout Australasia. MDA's Wind Farm Working Group performs ongoing review of local and international guidance and research to ensure the highest standard of accuracy and reliability in wind farm noise assessment.



# St Patricks Plains Wind Farm wind turbine layout and noise contours



Map shows the layout of 47 wind turbines and noise contours for maximum noise levels based on the candidate wind turbine. Figure 1 insert shows the wind distribution recorded by the onsite wind monitoring mast. Wind direction on the site blows mainly from the west and north-west towards the east and south-east.

## Project team

Donna Bolton, General Manager Development - Tasmania  
 Sandra Weinhold, Project Manager

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