

RADIO-COMMUNICATIONS

Assessment

The assessment can be summarised under three categories – Analogue Television, Fixed Linking and Wide Area Services. The analysis was a desk based exercise and was conducted using a combination of proprietary propagation software tools and specialised BCL developed software.

To assess the likelihood of any licensed services being affected, a search was made of the New Zealand Register of Radio Frequency Licences. This is publicly accessible information maintained by the Ministry of Economic Development (MED). Transmitter licences and locations in the area were extracted from the MED's licence database released 26 June 2006. Whether or not these licences are actually in use by the licence holder in no way diminishes the rights of the licence holder in respect of protection from harmful interference effects. Hence, all radio spectrum licences were analysed.

Results

The potential for effects on Analogue Television is still being investigated. If interference occurs it is easily identified and easily mitigated.

Fixed Linking deals with all point to point services that operate either within, or that cross, the WEL Wind Park boundary. Diffraction (path obstruction) and scattering are the main interference mechanisms for fixed links. Careful selection of the turbine locations has ensured that no fixed links will be affected by diffraction.

Wide Area Coverage Services e.g. Mobile Communications (including Cellular, Broadband Wireless Access, AM/FM Broadcast Radio) are less likely to be affected due to turbines being located beyond the calculated "co-ordination" distances.

In summary the assessment has identified a varying risk to a small number of radio services in the area within and surrounding the WEL Wind Park. If interference does occur there are a number of mitigation strategies that will ensure any impact is either eliminated or minimised to an acceptable level.