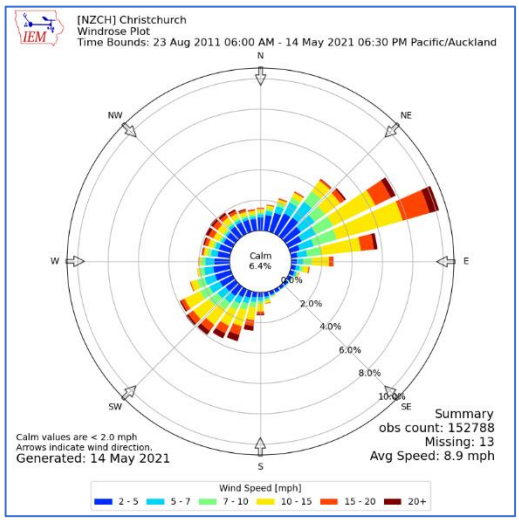
FIDOL Preliminary Assessment for Discharges of Odour

Site: **Proposed Woodstock Landfill – Trig Road Oxford**

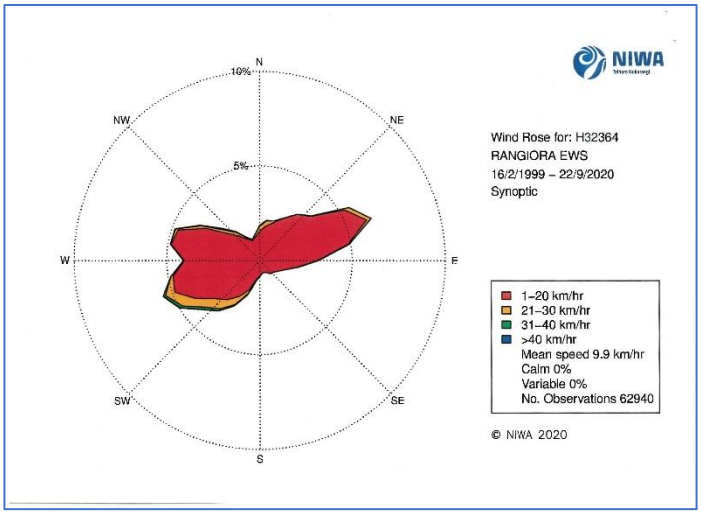
FIDOL factor	Assessment
Frequency / Intensity	The frequency, and intensity, of exposure to odour within the receiving environment is dependent on the strength of emissions and meteorological conditions. At a modern landfill the risk of odour nuisance due to abnormal odour emission events occurring is minimised using stringent controls in relation to acceptance and placement of waste as well as the integrity of the landfill cover and gas collection system and efficient operation of the flare. Odour complaints from well managed landfills are generally related to an identifiable event resulting in unexpected waste-related odours (such as from an odorous load of waste) or increased fugitive LFG emissions (such as from a pipework leak). The proposed landfill will not be accepting putrescible waste and therefore the risk of odour events from this source is low. As the landfill is not accepting putrescible wastes the rate of LFG generation will be very low, and therefore the risk of odour from this source is also low. While there is no site-specific wind data for the site the prevailing winds at the proposed landfill are likely to be similar to those recorded at other North Canterbury sites. Wind records for Christchurch and Rangiora show the predominate winds to be from the north-east and from the south-west. However, it is possible that the site may experience more north-west winds than the Christchurch and Rangiora sites. These winds tend to be gusty, and any odour would be dispersed within a few hundred metres. Based on the available data it is unlikely that odour events could potentially affect neighbouring properties.
Duration	The overall duration of the proposed activity, as per the Application, is for 35 years. Waste placement activities at the site will occur during the daytime, with working faces covered by daily soil cover, or alternative daily cover, overnight. The proposed conditions of consent have controls to ensure the integrity of the cover to minimise fugitive emissions of LFG. The proposed controls should minimise the potential for odour emissions to occur at night-time when there is no active filling. The Application includes provision for the installation of a landfill gas extraction system, with flares to destroy emissions. If the LFG system is operating in accordance with the proposed performance standards the risk of odour emissions is low. If there were to be an odour event it would be of very short duration.
Offensiveness (character)	Waste odours are generally considered offensive. LFG odours are generally considered offensive, although some people report the odour as being sweet.

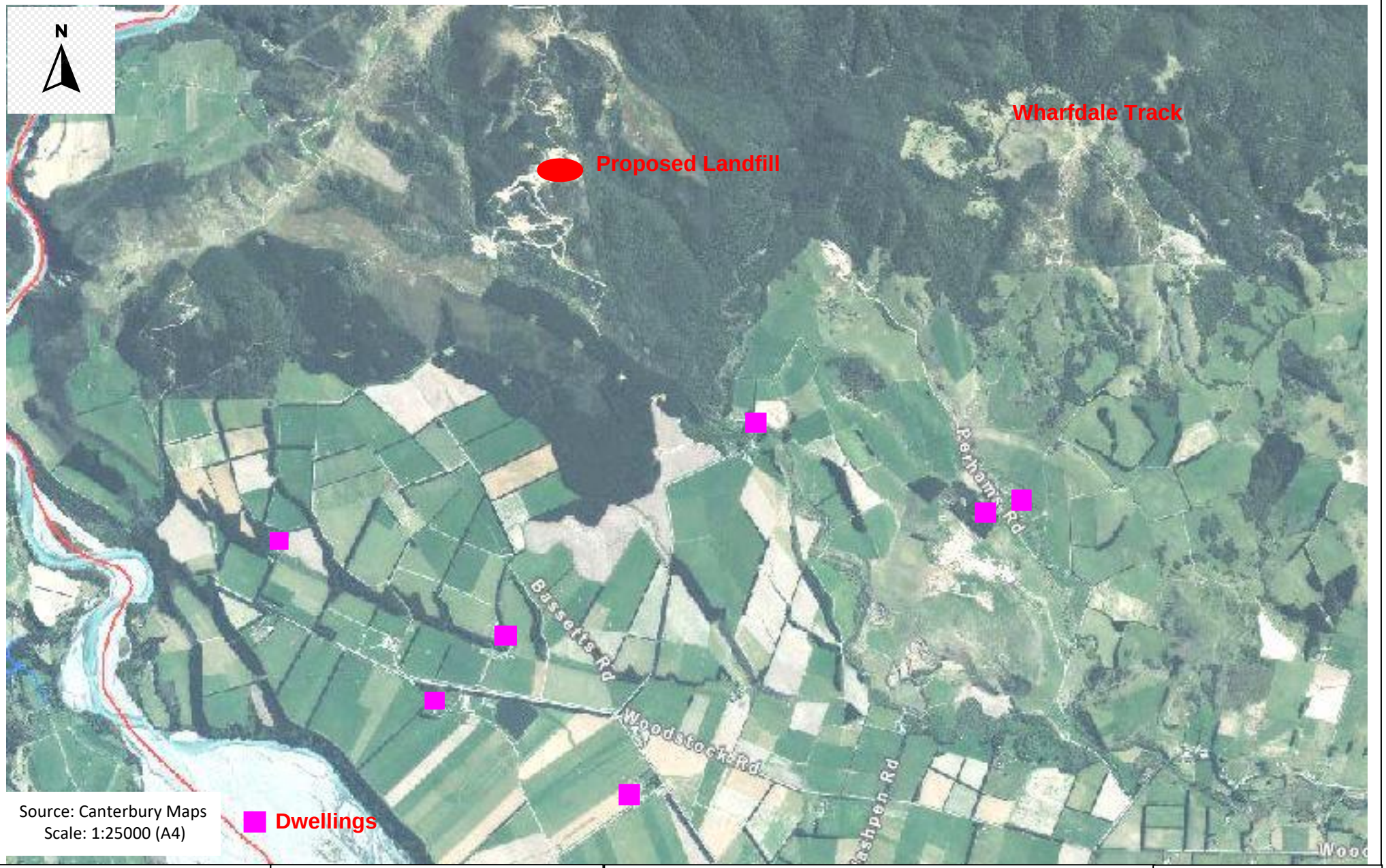
FIDOL factor	Assessment
Location	The immediate environment is steep to rolling hill country with limited access to the public. The conservation land to the east is steep, has no easy access, and is only likely to be frequented by the occasional hunter. The nearest sensitive receptor is located over 2100 m from the nearest point of the proposed landfill footprint. While the active landfill working face will shift during the life of the landfill it will be at distances greater than 2100 m during the operating life of the landfill. The Environment Protection Authority Victoria recommends a buffer distance of 500 m between the edge of a landfill footprint to the nearest sensitive locations (Landfill BPEM4).

Christchurch Wind Rose



Rangiora Wind Rose





Source: Canterbury Maps
Scale: 1:25000 (A4)

WOODSTOCK QUARRIES LIMITED Woodstock Quarries Ltd Trig Road, Oxford	Woodstock Landfill Development	FIDOL Assessment Locality Map	Drawing: **1200** Sheet: **7** Issue: **A** Date: **February 2022** File: