

Appendix 4: Adverse Effects

What are the anticipated and known adverse effects of the project on the environment?

Meridian has engaged with the landowners, relevant local authorities and hapu-based trust (neighbours to the proposed solar development who are possible hosts for the transmission corridor) together with the local district and regional councils. Next steps will be more substantive engagement with relevant iwi, and other stakeholders and neighbouring landowners. This process was initiated in February 2024.

The key components of the project utilise mature and well understood technologies in the New Zealand context. The construction methodologies are well proven. The sites are highly suitable for the proposed activity. Meridian has an excellent track record of successful construction and operation of the types of facilities that are proposed by this project. Accordingly, there is high confidence that the effects will be robustly assessed and managed.

The Project site is on highly developed or modified rural land elevated 100m above the level of Lake Taupō [approximate highest site contour is 550m]. The site is accessed via a spur road (Karangahape Road) that is not a through route and is off State Highway 32. The existing values of the site and surrounding land are highly compatible with the nature of the Project and the potential effects. The existing land use of the project site is a modern dairy farm. Accordingly in an operational state the proposed solar electricity generation activity will generally have very limited potential for adverse effects compared to other rural land uses.

We also note that the Project site exclusively comprises of Class 3 soils, ensuring no loss of highly versatile soils. Furthermore, we anticipate that a shift in land use, coupled with a decrease in farming activities, will likely diminish the application of Nitrogen (N) and Phosphorus (P) on the farm. This reduction is expected to yield broader environmental benefits, including decreased runoff to the catchment and enhanced groundwater quality.

Table 1: Effects arising from the Project

Assessments to support the application	Ancillary	Construction	Operation
Noise		✓	✓
Traffic, transportation and vehicle access		✓	✓
Geotechnical earthworks, erosion and sediment discharge		✓	
Hazardous substances storage and use		✓	✓
Contaminated soil disturbance		✓	
Ecology		✓	✓
Landscape and visual		✓	✓
Archaeological disturbance		✓	
Glint and glare			✓

Assessments to support the application	Ancillary	Construction	Operation
Highly productive land use change	✓		
Cultural Impact <i>(Dependent on advice from Ngāti Tūwharetoa)</i>	✓		
Natural hazards - flooding and stormwater	✓		

All of the actual and potential effects of the project are able to be realistically predicted and assessed and effectively managed through design, construction and operation methodologies and consent conditions.