

**To:** Ryan Piddington

**From:** Lindsay Lutes

**Company:** Tararua Wind Power Limited

**SLR Consulting New Zealand**

**cc:**

**Date:** 9 September 2025

**Project No.** 810.031205.00001

**RE: Mahinerangi Wind Farm Stage 2: Contaminated Land Assessment**

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**Confidentiality**

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SLR has been engaged by Tararua Wind Power Limited (the Client) to prepare a desktop Contaminated Land Assessment to inform the application and the detailed design development of the Mahinerangi Wind Farm Stage 2 (MWF Stage 2) located approximately 5 km north of Lake Mahinerangi and approximately 50 km west of Dunedin.

This assessment has been prepared in accordance with Regulation 6(2) of the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NESCS). Specifically, the assessment has included the following:

- Review of selected background information, specifically historic aerial photographs and council contaminated land records.
- Observations from site visits throughout the MWF Stage 2 location.
- Identification of areas of environmental concern which require additional investigation, if any.
- Completion of a high-level assessment of potential risk to human health and the environment associated with the construction of the MWF Stage 2.
- Assessing the need for further investigation, if required.

## 1.0 Background Information Review

### 1.1 Proposed Development

The Client is progressing Stage 2 of the MWF, which is proposed to consist of 44 turbines which will have a maximum tip height of 165 m. Stage 2 also includes surplus fill disposal sites (SFD), a new 110 kV transmission line, substation, battery energy storage system (BESS), and other operations facilities. The MWF is located on open pasture and rolling hills, with large areas of tussock or low grass cover across ridgelines and slopes. A network of branching gullies dissect the area.

This assessment has focussed on the proposed Stage 2 Layout, being the consented and proposed areas of earthworks within the wider boundary of the Windfarm Site, and the proposed Transmission Corridor. Specifically, this includes land subject to soil disturbance and construction activities associated with construction of turbines, access tracks, and associated infrastructure, cable trenches, surplus fill disposal locations, and within the proposed transmission line corridor. The Stage 2 Layout and Transmission Corridor are hereafter referred to collectively as 'Stage 2 Layout'.

## 1.2 Site Visits

Site visits to the Windfarm Site have been undertaken by SLR employees over multiple days in 2024 and 2025 (including, but not limited to, six days in March and April 2024, three days in January 2025, three days in April – May 2025, one day in July 2025). The following was noted:

- The Windfarm Site primarily comprises pastoral land in rolling hills, dissected by a network of streams and gullies.
- Roadway and access routes have been established via the Eldorado Track south and east of the Windfarm Site.
- Various ancillary farming structures were present east, west and northwest of proposed overhead transmission structure P6, and east of Wind Turbine Generator (WTG) 34. There were no structures noted within the Stage 2 Layout.
- A switch-yard or substation, part of MWF Stage 1, was noted northeast of WTG 46.
- Twelve existing wind turbines, part of MWF Stage 1, were present within the Stage 2 Layout.
- Stock was present across some areas of the Windfarm Site due to operational farming. Areas of cropping (swedes) were observed.

## 1.3 Listed Land Use Register Search

The Otago Regional Council (ORC) – Listed Land Use Register (LLUR) – maintain an online record of properties that have or are suspected of having an activity listed on the hazardous activities and industries list (HAIL) undertaken on them. Based on a review of the ORC LLUR, the Windfarm Site does not include any properties listed on the HAIL.

## 1.4 Current Registered Groundwater Bore Search

The ORC LLUR's record search of registered groundwater bores shows no registered groundwater wells within the Windfarm Site. One existing well (well number H44/0014) drilled to a depth of 10 m below ground level (m bgl) on 29 March 1997, owned by Dunedin Electricity, is located approximately 500 m southwest of the Stage 2 Layout at its nearest point. A second existing well (well number H44/0022) drilled to a depth of 125.65 m bgl on 5 November 2002, owned by Thomas Maxwell Nichol, is located approximately 4 km northeast of the Stage 2 Layout at its nearest point.

## 1.5 Historic Aerial Imagery

Historic aerial images were sourced from LINZ and Retrolens. These are described in Table 1 and attached to this report.

The review focussed on activities within the Stage 2 Layout or activities on immediately adjacent land where there was the potential for these activities to introduce contaminants into the soil within the Stage 2 Layout.



**Table 1: Historical Aerial Image Summary**

Year	Reference	Observations
1963/69	Retrolens (multiple aerals)	<p><b>Stage 2 Layout</b></p> <p>These are the earliest available images. The Stage 2 Layout is primarily in open pasture and rolling hill country, with large areas of tussock or low grass cover across ridgelines and slopes. The terrain is dissected by natural gullies, which form a branching network through the Stage 2 Layout. Numerous roadways and access routes are established throughout the Stage 2 Layout, a number of which form part of the proposed Stage 2 Layout or will be used as access routes for the proposed windfarm development. No built structures are visible within the proposed Stage 2 Layout.</p> <p><b>Surrounding Land</b></p> <p>The surrounding areas are predominantly pastoral, with more intensive paddock division and farm development located to the east and south of the Stage 2 Layout. Farming and cropping activities are apparent south and west of proposed transmission line structures T1 to T4, P1 and P2, with a residential dwelling located southeast of T1. Farming and cropping activities with a residential dwelling and ancillary structures are located west of proposed WTG 13.</p>
1975	Retrolens (multiple aerals)	<p><b>Stage 2 Layout</b></p> <p>No significant changes within the Stage 2 Layout are noted since the 1963/69 images, except for evidence of additional areas of cropping / pastoral activities. The additional cropping / pastoral activities are apparent in the northern area of the Stage 2 Layout south and west of proposed WTG 1, 2 and 6, and in the southern area of the Stage 2 Layout surrounding proposed overhead transmission line structures P5 and P6, and east of P2 and P1.</p> <p><b>Surrounding Land</b></p> <p>There are no significant changes visible on immediately surrounding land noted since the 1963-69 images.</p>
1984	Retrolens (multiple aerals)	<p><b>Stage 2 Layout</b></p> <p>No significant changes within the Stage 2 Layout are noted since the 1975 images except for the expansion of the cropping / pastoral activities in the northern area of the Stage 2 Layout. An addition of cropping/pastoral activities are apparent in the southern area of the Stage 2 Layout surrounding proposed overhead transmission line structures P3 to P9.</p> <p><b>Surrounding Land</b></p> <p>The addition of multiple farming developments (i.e., small ancillary farming structures west and southwest of proposed overhead transmission structure line P6 and residential dwellings are apparent to the east and south of the Stage 2 Layout. An airstrip is apparent running generally north-south between WTG 10 and 18. A small structure may be present east of WTG 34.</p>
2004-2011	LINZ (multiple aerals)	<p><b>Stage 2 Layout</b></p> <p>A small area of disturbance is present at the northern end of the airstrip between WTG 10 and 18. No other significant changes within the Stage 2 Layout are noted since the 1984 images.</p> <p><b>Surrounding Land</b></p> <p>The structure east of WTG 34 is more defined. A structure appears to be constructed northeast of proposed overhead transmission line structure P4 and southeast of P5. Structures west, east and southwest of</p>



		proposed overhead transmission line structure P6 appear more defined. These facilities are likely ancillary farming structures. The expansion of cropping activities is apparent in the southwestern, southeastern and northern areas of the Windfarm Site.
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## 1.6 Hazardous Substance and Incidents Reports

A search of the hazardous substance and incidents reports, maintained by the Environmental Protection Authority (EPA) over the period July 2006 to December 2011, did not identify any incident at or within a 500 m radius of the Stage 2 Layout.

## 1.7 NZ Topo

A search of NZ Topo maps identified an airstrip immediately adjacent to the northern area of the Stage 2 Layout, south of the proposed construction corridor between WTG 10 and 18. Various structures are also featured east and west of transmission line structure P6, and east of WTG 6.

## 2.0 Summary

The Stage 2 Layout is primarily in open pasture and rolling hill country, with large areas of tussock or low grass cover across ridgelines and slopes. The terrain is dissected by natural gullies, which form a branching network through the Windfarm Site.

The Stage 2 Layout has historically been used for pastoral activities with paddock division and cropping located to the south and east. Historical aerial images dating from 1963 to 2011 confirm the history of pastoral activities across the Stage 2 Layout. Increased operational farming activity is evident in historic aerial images based on the expansion of cropping activities, addition of ancillary structures, and development of local access track networks within the general vicinity of the Stage 2 Layout through the years. An airstrip is first visible in the 1984 aerial image, which appears to intersect with the edge of the Stage 2 Layout. A small area of disturbance (potential fertiliser storage) is visible at the end of the air strip in the 2004-2011 images, but this is no longer visible in current aerial photographs. On the basis of the short period this area of disturbance was visible, and that it only partly intersects with the Stage 2 Layout, this is not considered to present a potential risk to human health as part of the development.

There is no evidence from ORC records that activities listed on the HAIL are being, or have historically been, undertaken on the Stage 2 Layout. There are no current or historic structures within the Stage 2 Layout, although a number of existing farm access tracks are present.

SLR has been advised that the switchyard, located northeast of WTG 46, was constructed as part of Stage 1 in 2011 and comprises limited bus work, two poles and switching gear. The switchyard does not contain transformers, and there is not reported evidence of use, storage, or disposal of hazardous substances, including polychlorinated biphenyls. Based on the recent age of the switchyard, it is considered highly unlikely that hazardous building materials such as asbestos, asbestos containing material, or lead based paint, has been used during construction. As such, the Stage 2 Layout is confirmed as having no HAIL activities present, and does not fall under the provisions of the NESCS.

Overall, there is no evidence to suggest that activities listed on the HAIL have historically been, or are currently being, undertaken on, or impacting the Stage 2 Layout.

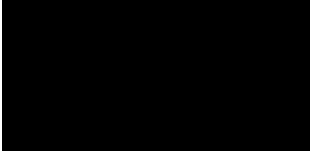


## 3.0 Closure

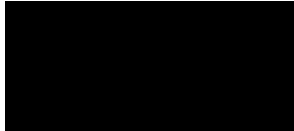
Should you have any questions please contact the undersigned.

Regards,

**SLR Consulting New Zealand**



**Nigel Mather**  
Technical Discipline Manager |  
Environmental Services



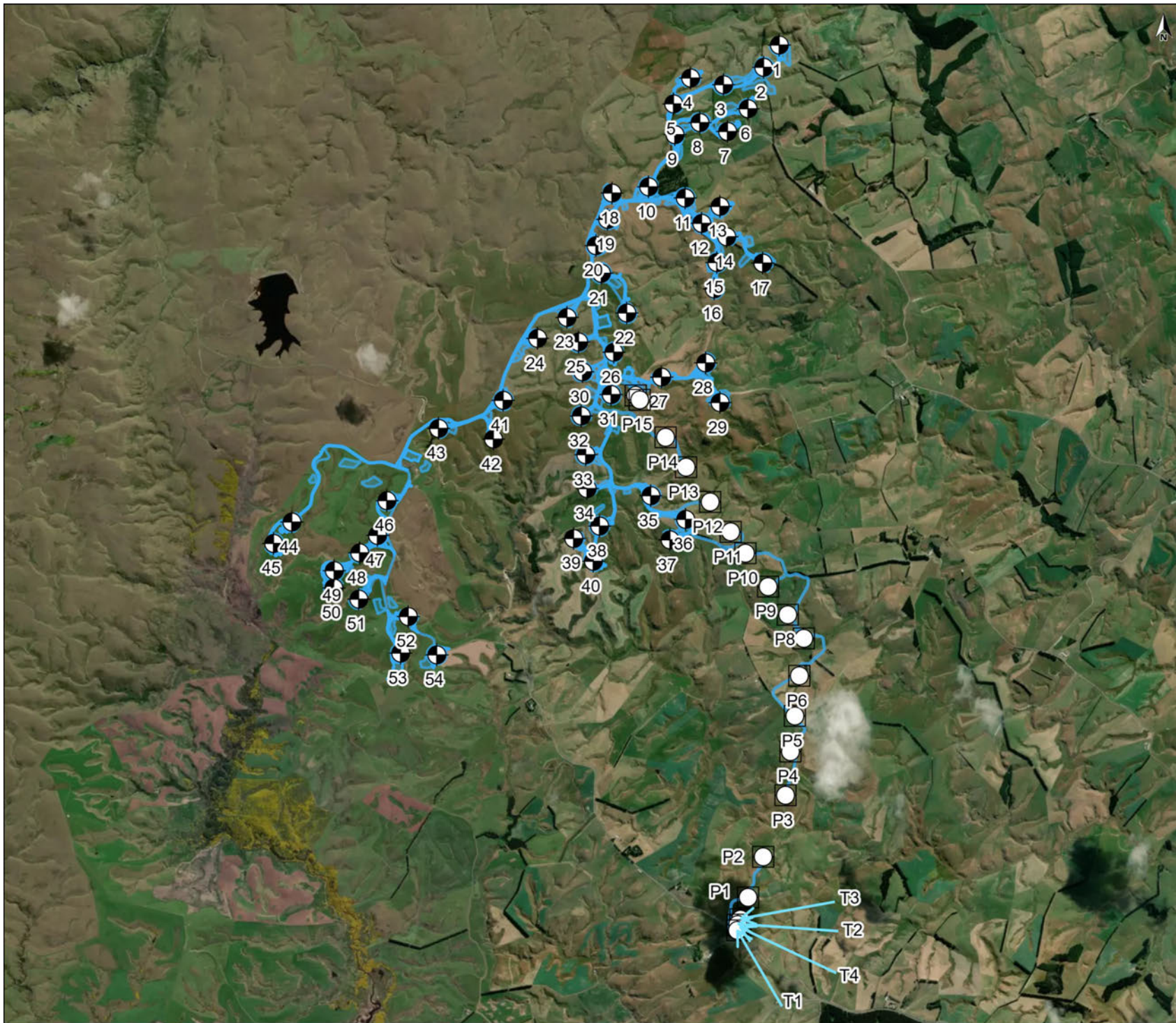
**Lindsay Lutes**  
Senior Environmental Consultant |  
Environmental Services

### Attachments

- Site Location Plan
- 1963/69 Historic Aerial Image
- 1975 Historic Aerial Image
- 1984 Historic Aerial Image
- 2004-2011 Historic Aerial Image







- Legend**
- Overhead Transmission Line - 2025/Structure locations
  - Concept Design - 2025/Stage 2 WTG Locations - RC 2025
  - Stage 2 Layout
  - Stage 2 Layout

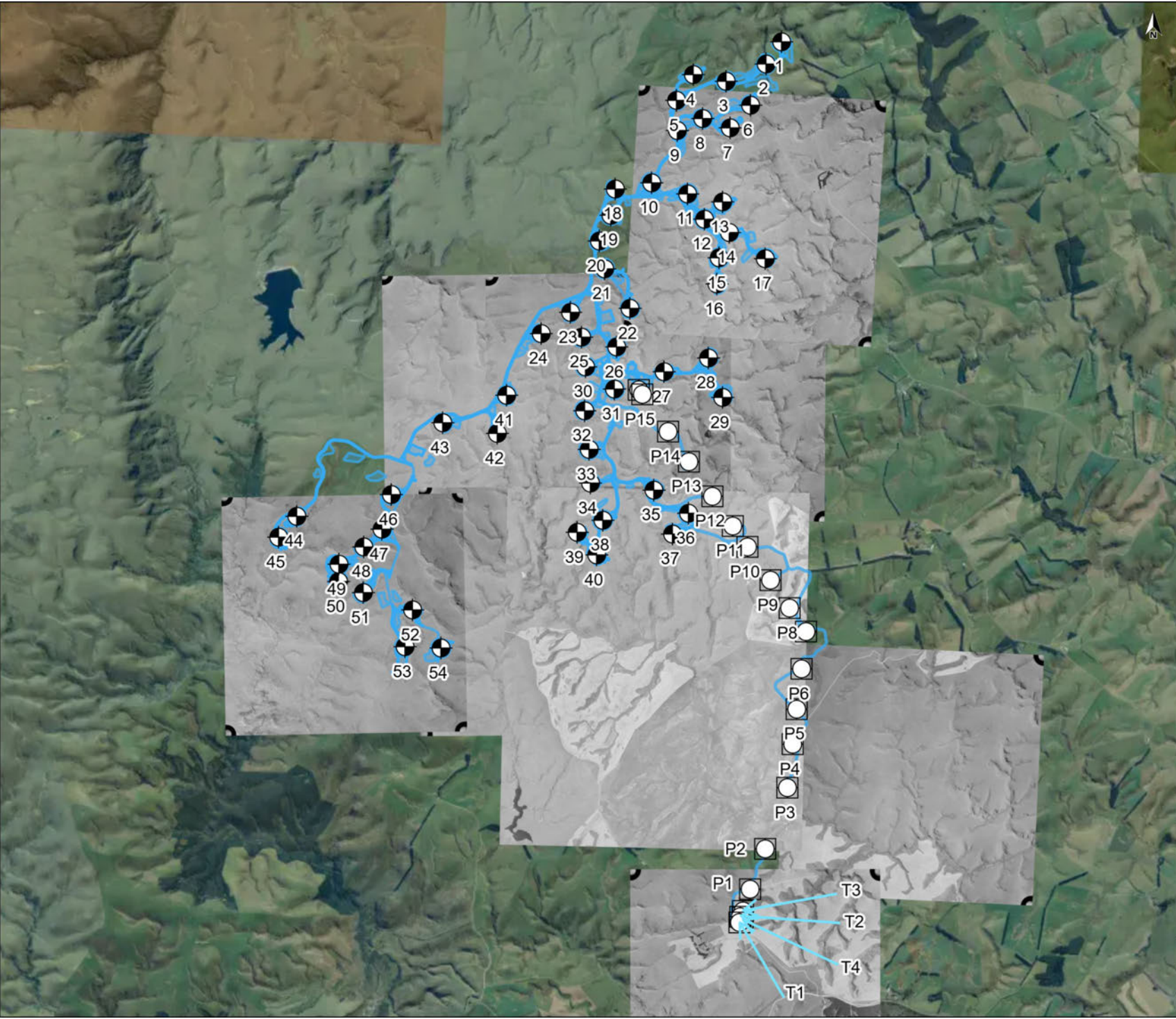
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© Mapbox

**SLR**

Produced by **Datanest.earth**

Title: Site Location Plan		
Client: Mercury Energy Limited		Size: A4
Project: Mahinerangi Wind Farm Stage 2	Drawn: LL	Figure No.: 1
Date: 22-08-2025	Checked: NM	
Proj No: 810.031205.00001	Scale: 1:53992	Version: 1.0





- Legend**
- Overhead Transmission Line - 2025/Structure locations
  - Concept Design - 2025/Stage 2 WTG Locations - RC 2025
  - Stage 2 Layout
  - Stage 2 Layout
  - Historical Aerial Image - 1963/69

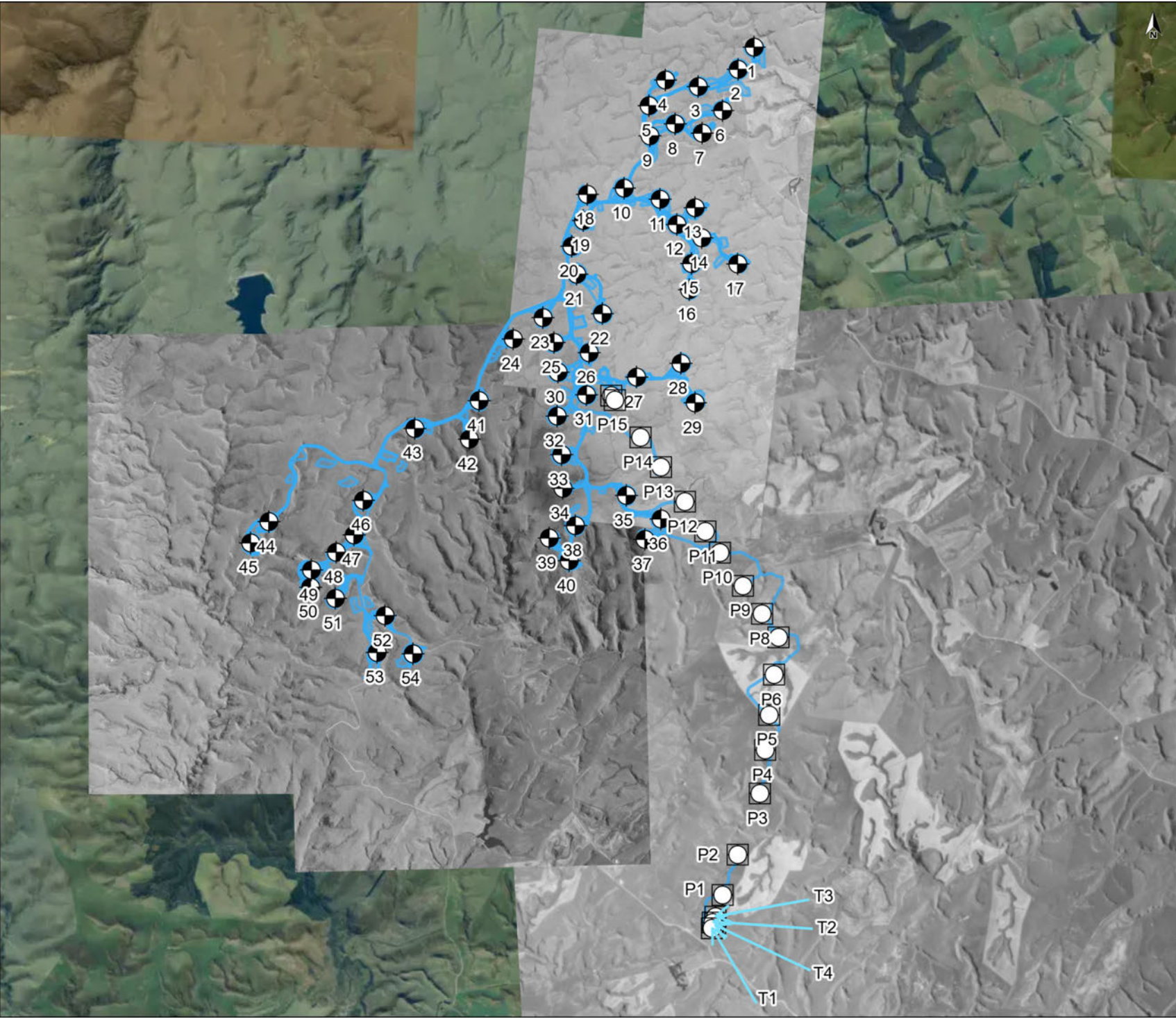
0 500 m 1000 m  
LINZ CC BY 4.0 © Imagery Basemap contributors



Produced by **Datanest.earth**

Title: Historical Aerial Image - 1963/69		
Client: Mercury Energy Limited		Size: A4
Project: Mahinerangi Wind Farm Stage 2	Drawn: LL	Figure No.: 2
Date: 22-08-2025	Checked: NM	
Proj No: 810.031205.00001	Scale: 1:53998	Version: 1.0





- Legend**
- Overhead Transmission Line - 2025/Structure locations
  - Concept Design - 2025/Stage 2 WTG Locations - RC 2025
  - Stage 2 Layout
  - Stage 2 Layout
  - Historical Aerial Image - 1975

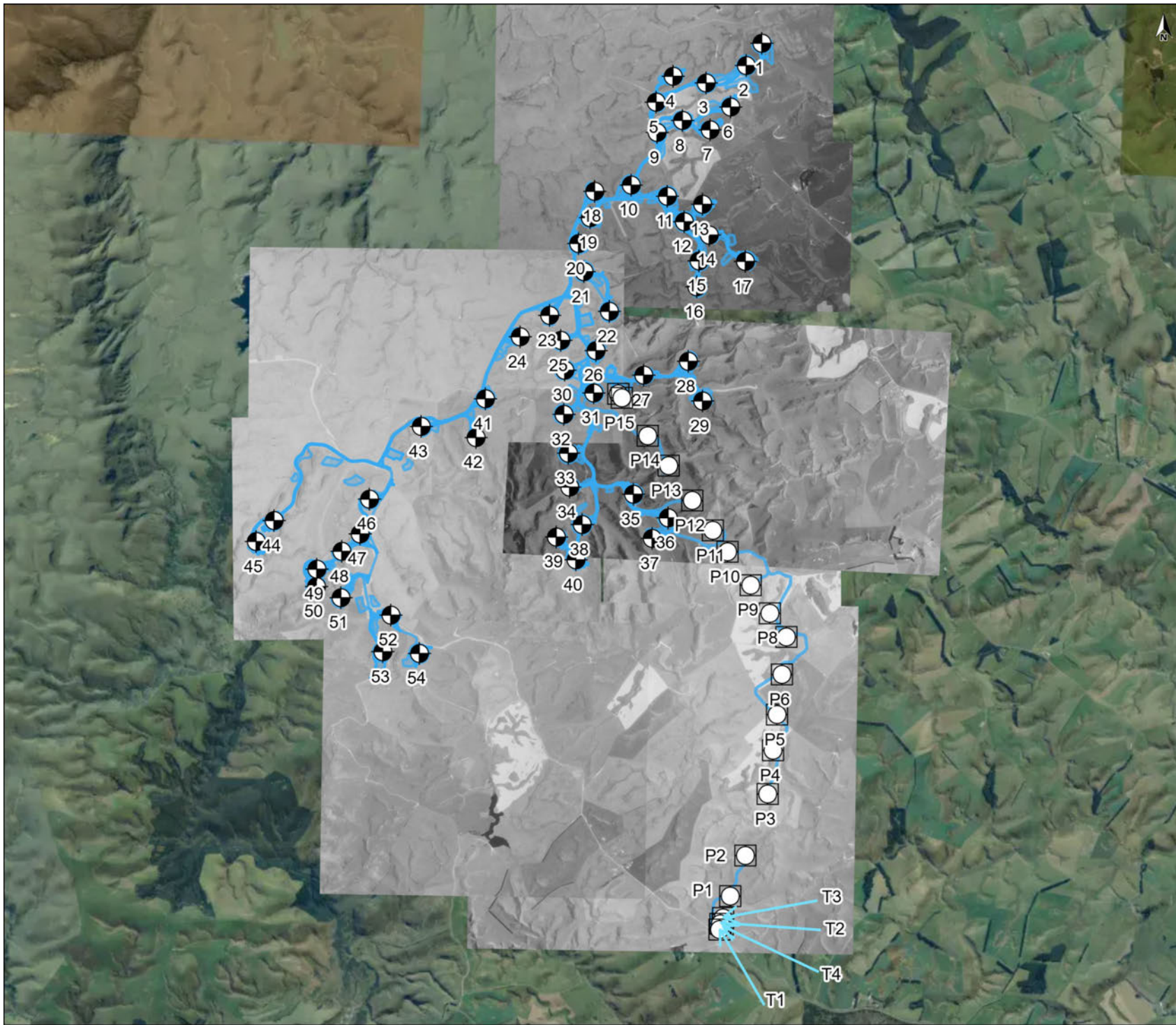
0 500 m 1000 m  
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Produced by **Datanest.earth**

Title: Historical Aerial Image - 1975		
Client: Mercury Energy Limited		Size: A4
Project: Mahinerangi Wind Farm Stage 2	Drawn: LL	Figure No.: 3
Date: 22-08-2025	Checked: NM	
Proj No: 810.031205.00001	Scale: 1:53973	Version: 1.0





**Legend**

- Overhead Transmission Line - 2025/Structure locations
- Concept Design - 2025/Stage 2 WTG Locations - RC 2025
- Stage 2 Layout
- Stage 2 Layout
- Historical Aerial Image - 1984

0 500 m 1000 m

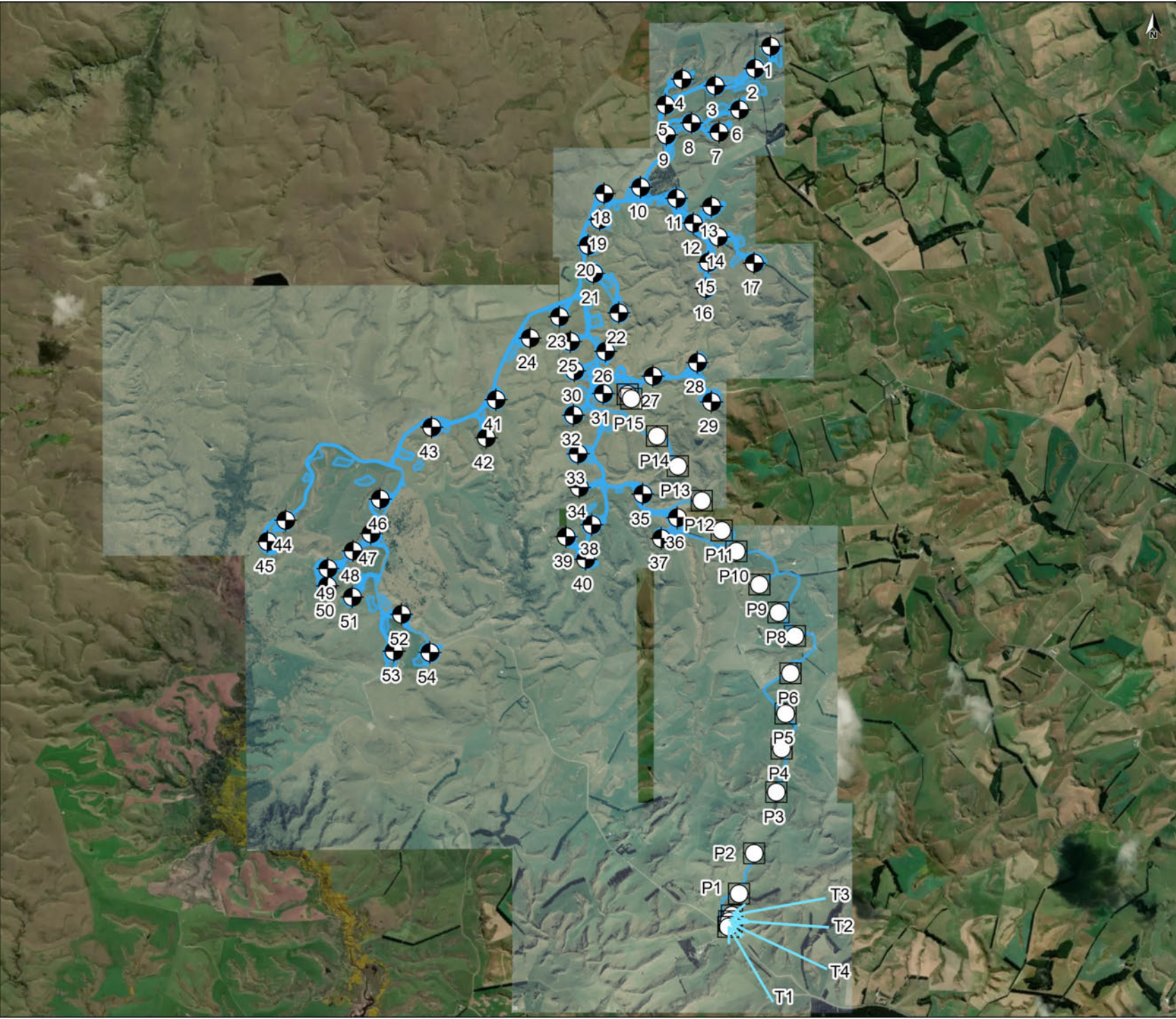
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Produced by **Datanest.earth**

Title: Historical Aerial Image - 1984		
Client: Mercury Energy Limited		Size: A4
Project: Mahinerangi Wind Farm Stage 2	Drawn: LL	Figure No.: 4
Date: 22-08-2025	Checked: NM	
Proj No: 810.031205.00001	Scale: 1:53976	Version: 1.0





- Legend**
- Overhead Transmission Line - 2025/Structure locations
  - Concept Design - 2025/Stage 2 WTG Locations - RC 2025
  - Stage 2 Layout
  - Stage 2 Layout
  - Historical Aerial Image - 2004-2011

0 500 m 1000 m  
© Mapbox



Produced by **Datanest.earth**

Title: Historical Aerial Image - 2004-2011		
Client: Mercury Energy Limited		Size: A4
Project: Mahinerangi Wind Farm Stage 2	Drawn: LL	Figure No.: 5
Date: 22-08-2025	Checked: NM	
Proj No: 810.031205.00001	Scale: 1:53998	Version: 1.0