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Vegetation Management Plan for Southland Wind Farm

Contract Report No. 6656j

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Vegetation Management Plan for Southland Wind Farm

Contract Report No. 6656j

August 2025

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08/08/2025



Cite this report as follows:

Wildland Consultants. (2025). *Vegetation management plan for Southland wind farm*. Wildland Consultants Contract Report No. 6656j. Prepared for Contact Energy Ltd. 18pp.

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1.0 Introduction

1.1 Plan purpose

This Vegetation Management Plan (VMP) sets out the methods that will be used to avoid or minimise adverse ecological effects on vegetation and associated terrestrial and wetland habitats for flora and fauna during the construction phase of the Southland Wind Farm (Table 1).

Vegetation loss will occur within the Project Footprint. In some areas, vegetation loss will be permanent; whereas in others (in particular where it relates to the deposition of fill at spoil sites), the loss will not be permanent. Vegetation within locations where the loss is not intended to be permanent will be rehabilitated as set out in Section 4.3.3.

This version of the VMP is a draft based on the indicative Project Footprint at the time of lodgement of the substantive application made under the Fast-track Approvals Act 2024. It will be updated to reflect the final Project Footprint – including after the vegetation remapping and process of considering modifications to the Project Footprint required by proposed conditions EC4A and EC4B.

Table 1 – Purpose, specific objectives, performance measures and monitoring relevant to the VMP.

Purpose	This VMP outlines how the earthworks and associated vegetation clearance and rehabilitation methods to be used during the construction of the Project will meet the requirements of proposed conditions EC3 and EC5to EC11B of the resource consents for the Project.
Specific Objectives	The objective of this VMP is to achieve the standards set out in conditions EC6 to EC11B and to avoid, where practicable, mitigate, or remedy adverse ecological effects of the construction of the Southland Wind Farm on indigenous vegetation and associated habitats for flora and fauna.
Application and scope	Vegetation clearance protocols will only apply to those areas identified in the Ecological Constraints Maps (refer to Figures VMP - 2a and 2b in this report). However, during the bird breeding season (September to March inclusive), pre-vegetation nest checks will need to be undertaken. Note: Figures may be subject to change once final design is completed.
Measures to minimise adverse effects	<div><div>This plan addresses indigenous forest and wetland protection, avoidance, and minimisation of potential adverse effects, and rehabilitation measures, including:</div><div><ul style="list-style-type: none">• Vegetation clearance protocols to protect surrounding habitat and to avoid intrusion of construction works beyond the construction area, such as through the physical delineation of areas and individual significant or high value large trees that are close to but outside the Project footprint, directional felling of trees, and/or sediment controls around wetlands.• Proposed controls for maintaining setbacks of vegetation clearance from active nests of indigenous bird species until chicks have fledged (noting that the 50-metre setback can be reduced on a case-by-case basis, if deemed appropriate by a suitably qualified and experienced ecologist). The required setbacks are set out in the Avifauna Management Plan.• Salvaging of lizards and invertebrates (detailed in the Lizard Management Plan (LMP), and Terrestrial Invertebrate Management Plan (TIMP)),• Proposed measures to stockpile and manage cleared vegetation to avoid or minimise potential adverse effects (e.g., lizards not detected during salvaging);• Relocation of coarse wood (detailed in the HREP); and• Rehabilitation of temporary construction sites and fill disposal sites.</div></div>

Monitoring	Monitoring to confirm that requirements of consent conditions have been adhered to before, during and after vegetation clearance. Monitoring of wetlands adjacent to the Project Footprint and managing construction related effects on these wetlands.
Reporting	For each stage of vegetation clearance, a site-specific pre-clearance report will be provided to consent authority(s) no later than 10 working days prior to commencement of construction activities. That report will confirm details of the intended clearance activities at the specific site, as described below. Incident-based reporting will be provided to consent authority(s) within ten working days of an unforeseen event occurring. As part of the annual reporting requirements specified under condition CM27, an overall compliance monitoring report will be submitted to the consent authority(s) at the end of each year (being by 30 September for the year 1 July to 30 June). The report will provide a summary of all vegetation clearance undertaken across the Wind Farm Site, and will include maps, quanta and type of vegetation cleared, and any incidents reported.

1.2 Draft Consent Condition Scope

This VMP has been developed in accordance with Consent Conditions EC3 – EC11B.

These consent conditions are addressed through the implementation, monitoring and reporting procedures set out in this VMP and interlinking plans. The term ‘vegetation clearance’ in this VMP refers to all vegetation clearance proposed to enable construction of the Project. Vegetation clearance protocols will only need to be applied in areas identified on the Ecological Constraints Maps (Figures VMP - 2a and 2b). However, nest checks will need to be undertaken in *all* vegetation prior to clearance during the bird breeding season, which is September to March (inclusive).

The controls set out in the VMP exclude the removal of all plantation forestry that is under Matariki Forest ownership and management as well as the temporary removal of pasture at Jedburgh Station and Glencoe Station.

The following plans are also relevant to this VMP:

- The various fauna management plans, which have requirements that rely on this VMP being followed (for example, the setbacks from nests of indigenous avifauna in the Avifauna Management Plan).
- Habitat Restoration and Enhancement Management Plan (HREP), which provides detail on the location, type and magnitude of indigenous habitat restoration and enhancement measures that are proposed to offset or compensate for significant residual effects on ecological values affected by the wind farm.
- The Construction and Environmental Management Plan (CEMP), and in particular the Earthworks Management Plan (including Erosion and Sediment Control Plan) prepared pursuant to the CEMP. These plans provide detail on earthworks and erosion and sediment control effects and mitigation protocols.

1.3 Responsibilities and competencies

Delivery of, and compliance with, the VMP will be the responsibility of the Environmental Manager who will liaise with the site manager, Project Ecologist(s), site engineers and vegetation clearance and earthworks contractors as required.

The responsibilities of the Environmental Manager include, but are not limited to:

- Reading and understanding the VMP;
- Facilitating a project start-up meeting with the Project Ecologist(s), site manager, site engineer(s), and vegetation clearance and earthworks contractors before vegetation clearance and earthworks commence for each stage of the Project. The objective of this meeting will be to determine habitats scheduled for clearance each season, enabling forward planning and avoiding delays in the construction schedule;
- Ensuring that site inductions for vegetation clearance and earthworks contractors are completed prior to vegetation clearance commencing;
- Contacting the Project Ecologist(s) a minimum of 20 working days before each stage of vegetation clearance is scheduled;
- Maintaining clear lines of communication with the Project Ecologist(s), site manager, site engineer(s) and vegetation and earthworks contractors regarding changes in the works schedule; and
- Briefing new personnel about the contractor's responsibilities under this plan.

All personnel working on site are responsible for alerting the Environmental Manager and the site manager to the discovery of any 'At Risk' or 'Threatened' flora and fauna not otherwise identified in this management plan.

The Environmental Manager is responsible for reporting the discovery of 'At Risk' or 'Threatened' flora and fauna to the Department of Conservation Local Area Manager and for maintaining a database with an incident register and file log of actions taken for each such discovery.

1.4 Plan structure

This VMP is set out as follows:

- Introduction (this section);
- Section 2 - Summary of ecological effects and effects management;
- Section 3 - Protocols for managing effects of vegetation clearance; and
- Section 4 – Compliance monitoring and reporting requirements.

2.0 Summary of Ecological Effects and Effects Management

2.1 Effects on vegetation/habitat

The Project, if constructed to its full potential and maximum wind turbine component size, is expected to result in the permanent loss of 134.7 hectares of indigenous and exotic vegetation.

There will also be a temporary loss of indigenous and exotic vegetation/habitat that will be required to enable construction activities and for the deposition of spoil (and will subsequently be rehabilitated).

The actual and potential impacts of the Project associated with vegetation clearance are described in the ecological evidence prepared by Wildland Consultants (2025¹), and in summary include:

- Vegetation and habitat loss and modification through vegetation clearance and earthworks and potential changes to wetland hydrology;
- Disturbance to and mortality and/or injury to indigenous fauna during vegetation clearance or earthworks;
- Creation of habitat edge effects, fragmentation of habitats, and altering the composition and health of adjacent vegetation, which may affect habitat suitability for flora and fauna; and
- Discharge of sediment to aquatic receiving environments that may affect the quality of wetland and stream habitats.

2.2 Effects management

A range of measures have been or will be undertaken during construction to avoid and minimise adverse effects on vegetation, including on 'Threatened', 'At Risk' or 'Rare' ecosystems and species. These measures include:

- Additional ecological surveys that were carried out in 2024 and 2025 to identify further opportunities to avoid or minimise potential effects on ecological values;

Pre-clearance protocols including delineation (Section 3.1);

- Pre-clearance bird nest surveys (as per the AMP);
- Salvaging and relocation of lizards and notable invertebrates, including Helms' stag beetles (as per the LMP, TIMP, and SBMP);
- Post-clearance protocols including relocation of coarse wood habitat (Section 3.3); and
- Rehabilitation and indigenous revegetation of sites cleared or disturbed by earthworks for temporary construction activities or sites proposed for deposition of fill (Section 3.3).

Additionally, significant residual effects will be offset or compensated for via habitat restoration measures as set out in the HREP.

¹ Wildland Consultants (2025). Southland Wind Farm Technical Assessment: Terrestrial and Wetland Ecology. Contract Report No. 6656r. Prepared for Contact Energy Ltd.

3.0 Protocols for Vegetation Removal: *Placeholder for further refinements to Project footprint once detailed design is completed*

Table 2 below summarises the vegetation management measures along with consent conditions, roles and management plans that relate to each vegetation management measure. Each measure is described in the section below.

Table 2 – Summary of vegetation clearance measures and associated proposed consent condition(s), roles and responsibilities and management plans relevant to each.

Vegetation clearance management measures	Relevant consent conditions	Primary responsibility and relevant roles	Primary management plan (s)
Before vegetation clearance (Section 4.1)			
Onsite construction method refinements	EC4B, EC7-EC8	Environmental Manager in consultation with Project Ecologists(s), design and construction engineers, the Project arborist and vegetation clearance contractors	VMP + CEMP
Physical delineation	EC5	Environmental Manager(s) in consultation with arborist, construction engineer(s) and vegetation clearance contractors	VMP
Avifauna nest surveys	EC31 – EC33	Avifauna Ecologist in consultation with Environmental Manager, construction engineer(s), arborist and vegetation clearance contractors	AMP
Salvaging of lizards and invertebrates	EC12 – EC18 EC19 - EC26	Project Ecologist(s) in consultation with Environmental Manager, construction engineer(s), arborist and vegetation clearance contractors	LMP, TIMP, SBMP
Pre-clearance survey and salvage (Section 4.2)			
Pre-clearance salvage of lizards and invertebrates within identified ecological constraints areas across the Project Site	EC15 – EC24	Project Ecologist(s) in consultation with lead Environmental Manager, construction engineer(s), and vegetation clearance contractors and engineers	VMP, TIMP, SBMP, LMP
Supervised lizard salvaging in selected high-value habitats during vegetation clearance		Project Ecologist(s) and/or Project Herpetologist in consultation with Environmental Manager, construction engineer(s) and vegetation clearance contractors	VMP + LMP
Stockpiling coarse wood for relocation	EC23, EC54(f)	Project Ecologist(s) in consultation with Environmental Manager, construction engineer(s) and vegetation clearance contractors	VMP + HREP

Vegetation clearance management measures	Relevant consent conditions	Primary responsibility and relevant roles	Primary management plan (s)
Post-vegetation clearance (Section 4.3)			
Rehabilitation of fill sites and temporary construction areas via revegetation	EC9, EC11, CM3	Environmental Manager in consultation with construction engineer(s), earthworks contractors and nursery and revegetation contractors	VMP + CEMP
Disposal of felled vegetation	EC10	Environmental Manager in consultation with Project Ecologist(s), construction engineers, and vegetation clearance contractors	VMP, LMP + CEMP

The vegetation clearance management measures are provided below in order of occurrence, i.e. before (Section 3.1), during (Section 3.2), and post-clearance (Section 3.3).

3.1 Pre-clearance protocol

3.1.1 Physical delineation

The Project footprint will be physically delineated to minimise potential for incidental vegetation/habitat loss outside the footprint, noting that this will be undertaken in stages as construction progresses. Individual mature trees located near to, but outside, the Project Footprint will also be identified by a suitably qualified ecologist and marked by flagging tape or fencing to avoid inadvertent clearance and to minimise potential damage to branches and roots. Similarly, the boundaries of adjacent wetlands will be physically demarcated to avoid inadvertent encroachment of construction activities.

3.1.2 Sediment and erosion control

Prior to vegetation clearance, sediment control measures will be undertaken to avoid or minimise effects on wetland birds and aquatic species due to effects on water quality. Procedures for minimising the area and duration of soil exposure from vegetation clearance will be undertaken in accordance with the CEMP. At each stage of terrestrial indigenous vegetation cleared for the purposes of implementing sediment control measures, remediation planting will be undertaken as soon as is practicable. The intention will be that rehabilitation takes place in the first planting season following the completion of earthworks associated with construction activities. For example, if vegetation clearance was undertaken in August 2026, remediation planting at that specific site would be undertaken in October 2026 to March 2027. If plants are put in the ground any later at the site, there is a risk that Autumn frosts could kill them.

3.1.3 Fauna surveys and salvaging

Procedures to avoid or minimise impacts to birds, lizards, and invertebrates prior to vegetation clearance are summarised in Table 3 below and addressed in detail in the respective plans. Department of Conservation permits (Wildlife approvals) allowing species-specific salvaging and relocation operations apply in respect of lizards and invertebrates.

Table 3 – Fauna management surveys and salvaging required prior to vegetation clearance

Taxa	Pre- vegetation surveys and salvaging	Management Plan reference
Birds	Nest checks during bird breeding season (September – March inclusive) in vegetation to be cleared and physical delineation of exclusion zones.	AMP
Lizards	Deployment of ground and tree-mounted Artificial Cover Objects (ACOs), live capture trapping using Gee’s minnow and pitfall traps, and manual searching in areas of identified lizard habitat.	LMP
Invertebrates	Live-capture pitfall trapping and manual searching in potential high value habitat (See Ecological Constraints Maps in Figures VMP - 2a and 2b of this report).	TIMP

3.2 Clearance protocol

Vegetation removal will commence only after all pre-clearance management measures have been implemented in the relevant area and have been confirmed by the Environmental Manager in consultation with the relevant ecologist(s). During vegetation clearance activities, maintenance of physical delineation barriers and erosion and sediment control measures as described in the CEMP will be ongoing.

As described in the LMP, lizard salvaging will be undertaken prior to vegetation clearance in areas of identified lizard habitat. Furthermore, to minimise harm or injury to Tautuku gecko, cleared vegetation deemed suitable for geckos will be stockpiled adjacent to remaining mature or regenerating forest. This will enable geckos not detected during salvaging operations to self-disperse from felled vegetation into surrounding habitats. It will also help to minimise edge effects and enhance habitat for skinks and invertebrates. Incidental discovery protocols will also be in place for indigenous lizards and notable invertebrate species.

In habitats where geckos are detected during pre-clearance salvage of the tree-mounted artificial cover objects, vegetation that is removed must be stockpiled and not mulched, even if the geckos are not observed during clearance.

Felled trees (mainly mānuka and exotic trees) and already fallen logs (herein ‘coarse wood’) are ecologically important to forest regeneration processes and as habitat for a wide range of species. As such, coarse wood will be salvaged and stockpiled for the purposes of relocation into restoration and habitat enhancement sites (refer to the Lizard Management Plan for proposed locations of stockpiled vegetation). Stockpiling of coarse wood should occur immediately after felling to prevent geckos and invertebrates that may be living in the trees or shrubs being crushed by machinery or vehicles. The relocation of coarse wood can be undertaken at a later stage.

Coarse wood will be placed into small and compact windrows within defined areas with stockpile locations determined via consultation with the construction engineer(s), vegetation clearance contractors, and Project Ecologist. Coarse wood should not be placed in locations where material could move and enter streams. In forest areas, smaller volumes of material can be placed with minimal damage to existing sub-canopy and ground cover vegetation, mimicking natural tree fall.

Priority coarse wood for stockpiling includes large (> 60-centimetre diameter) felled logs or trunks of indigenous (preferably) or exotic trees. These should be cut up into manageable portions (0.5 – 3 metre sections). The quantity of wood to be stockpiled at each enhancement area will be at the discretion of the Project Ecologist and/or Project Herpetologist and/or Project Entomologist.

3.3 Post-clearance protocol

3.3.1 Relocation of coarse wood

Coarse wood will be relocated to restoration and habitat enhancement sites identified in the LMP, TIMP, and SBMP, and stacked via machinery wherever this can be undertaken without adverse effects on vegetation outside the Project footprint. Deployment is to be directed by the Project Ecologist in consultation with the Environmental Manager, construction engineer(s) and earthworks contractors.

Coarse wood from areas where specific notable or 'At Risk' fauna populations (e.g. Helms' stag beetles, tussock skink) are known should be placed in suitable and representative fauna habitat as near as possible to where it was removed and as soon as possible following removal. Coarse wood includes foliage and branches off trees and larger shrubs.

3.3.2 Disposal of felled vegetation

Although from an ecological perspective it is preferable to maintain as much felled vegetation on site as possible, for practical reasons, some vegetation will need to be mulched and removed and used either for sediment/erosion control during construction or used along with site-won topsoil for site rehabilitation and ecological restoration purposes. As discussed above, felled vegetation deemed to be high-value gecko habitat by the Project Ecologist will need to be stockpiled adjacent to existing vegetation and left for 30 working days prior to mulching, although it is preferable that all woody indigenous vegetation is permanently left in situ. **It is reiterated that any vegetation where geckos have been detected during preliminary surveys and pre-clearance checks must not be mulched.**

If required, mulching will be undertaken in a manner that prevents wood chips from entering streams and ephemeral gullies. Where practicable, this will involve manually chipping into the back of a truck, removing any vegetation that falls within 10 metres of a stream or wetland and mulching this at a suitable location. All vegetation not deemed potential gecko habitat, and that is not within close proximity to streams, wetlands, and ephemeral gullies, can be mulched on-site, using a mulching head on a large excavator. This process will result in mulch being distributed across the Wind Farm Site, noting that some mulch will be mixed with topsoil prior to revegetating fill disposal sites (see below).

3.3.3 Site remediation

Overview

All sites in which vegetation has been cleared to (i) enable construction, or (ii) where vegetation is temporarily lost via deposition of spoil, will be rehabilitated as soon as is practicable following completion of that stage of construction, in accordance with Condition EC9. The intention will be that rehabilitation takes place in the planting season following the vegetation clearance associated with construction activities (i.e. planting to take place in October-March following clearance).

Rehabilitation of relatively small, disturbed areas during construction will involve re-spreading and contouring of topsoil materials and stored overburden materials to a minimum depth of 300 millimetres, stabilisation of battered slopes and 'like-for-like' revegetation (i.e. lost pasture will be replaced with pasture and lost indigenous vegetation will be replaced with similar indigenous revegetation) to create a free draining and stable landform.

Topsoil management for remediating fill sites

Stripped topsoil at fill disposal sites should be stockpiled in low mounds (<2 metres high) to preserve microbial and seedbank viability. If practicable, topsoil should be covered with geotextile fabric or mulch to reduce erosion, compaction, and weed growth. It is critical that the topsoil is stored for the shortest possible duration (less than 12 months). The aim is to plant the completed fill sites in the following planting season (October-March following clearance).

Stabilising completed fill sites

At sites where topsoil cannot be fully reinstated, fill surfaces should be stabilised by hydroseeding with non-invasive grass species such as brown top or rye grass.

Site preparation for remedial planting

Sites that have become compacted will require 'ripping' prior to planting. Typically, ripping is done at a depth of 300-500 millimetres to improve root penetration and drainage.

Remediated fill sites must be contoured to match the natural topography and avoid ponding or slope instability.

Topsoil should be reapplied to a minimum depth of 150-300 millimetres. The soil should be spread evenly using light-tracked equipment (and/or by hand-raking). Mulched vegetation from elsewhere onsite can be incorporated if the topsoil quality has deteriorated during storage.

Planting guidelines

Site preparation should be undertaken in February to April prior to planting in May-September. This will largely involve spot-spraying rank exotic grasses and controlling pest plants.

To encourage planting success and survival, plant species will be eco-sourced from the Waipahi and Tahakopa ecological districts, preferably from a source near the project area. Where practicable, plant species such as mānuka, *Veronica odora*, tauhinu, and copper tussock will be propagated from seeds collected onsite (which will be carried out in advance of earthworks). Species selection for each fill disposal site will be guided by the vegetation types affected, so that that remedial revegetation will align with the original plant species composition. An indicative plant list is provided in Table 4.

Rehabilitation (remediation) planting will predominantly be carried out between the months of October to March due to the risk of frosts killing planted trees. Soil moisture will not be limiting at the majority of planting sites.

Optimal plant stock will be used in the planting, having the following attributes:

- Healthy, vigorous, and free from obvious signs of disease and pests;
- Of at least average size for the specified pot/plastic bag size (i.e. PB);
- Well-developed root system with a high amount of new root growth;
- Not root-bound; and
- Well-branched and symmetrically shaped.

Plant holes shall be dug according to spacing requirements and each plant hole is to be dug deep and wide enough so the plant collar is approximately one centimetre below ground level. Grass will be cleared away from each planting hole to ensure the new plants get enough light and nutrients. The soil will be loosened at the bottom of the hole, to allow the roots to penetrate the soil more freely. The plant is to be secured in the ground by filling the space surrounding the roots with soil and then lightly compressing to fill any voids that might be present around the roots to avoid waterlogging.

Biodegradable plant guards should be placed around plant species that are vulnerable to rabbit and hare browse (e.g. the 450 FiberGuard available from Advance Landscape Systems). Mānuka and tauhinu will not need plant guards.

Plant species specifications

The indigenous rehabilitation planting schedule for each affected vegetation (Table 4) type is guided by the species that occur naturally in that type and that offer food resource and refuge for a range of indigenous fauna. Consultation with Te Ao Marama Inc. (on behalf of Ngā Rūnaka ki Murihiku) and the Regional Council will also be undertaken prior to finalising the list of plant species.

Remediation sites should be maintained through pest plant control, infill planting as required, and/or mowing/grazing (pasture only). Maintenance of rehabilitated sites should be undertaken for a minimum of five years.

Table 4 – Indicative remediation planting schedule for temporary construction and disposal fill sites.

Species	Planting spacing (m)	No. of plants
Pasture rehabilitation		
	As per seeding mix	Not applicable
Rehabilitation of mixed indigenous shrubland and scrub		
Mingimingi (<i>Coprosma propinqua</i>)	1.4	To be based on final size of fill disposal sites
Mānuka (<i>Leptospermum scoparium</i>)	1.4	
Tauhinu (<i>Ozothamnus vauvilliersii</i>)	1.4	
<i>Veronica odora</i>	1.4	
Mountain holly (<i>Olearia ilicifolia</i>)	2.0	
Inaka (<i>Dracophyllum longifolium</i>)	1.4	
Rehabilitation of copper tussock-dominant grassland shrubland		
Copper tussock (<i>Chionochloa rubra</i> subsp. <i>cuprea</i>)	1.0	To be based on final size of fill disposal sites
Harakeke (<i>Phormium tenax</i>)	1.4	
Mānuka forest and scrub		
Mānuka	2.0	To be based on final size of impact area
Inaka	2.0	

4.0 Compliance Monitoring and Reporting

4.1 Overview

Compliance or incident reports described in this section will be submitted to Environment Southland and Southland District Council in accordance with Condition EC11. Reporting on the removal of grazed pasture at Jedburgh and Glencoe stations and exotic plantation forest at Matariki is outside the scope of this VMP.

4.2 Pre-clearance

For each stage of vegetation clearance, a site-specific pre-clearance report will be provided to consent authority(s) no later than 10 working days prior to commencement of construction activities. The report will include:

- An updated Project footprint and Ecological Constraints Maps and GIS shapefiles that illustrates site-specific vegetation clearance effects management measures; and
- Representative photos showing physical delineation of vegetation within each stage of the Project footprint (particularly wetlands), high-value trees immediately adjacent to the footprint, sediment control measures, and proposed stockpiling locations.

4.3 Wetland monitoring

Monitoring of wetlands near to the Project Footprint will be undertaken prior to construction, during construction, and post construction (for up to two years) in accordance with Condition EC11B.

Plots shall be established within 20m of the turbine platforms and roads in the following locations, subject to the final Project Footprint design:

- (i) Two (2) plots in fen adjacent to JED-22;
- (ii) Two (2) plots in fen and two (2) plots in bog wetland adjacent to JED-23;
- (iii) Two (2) plots in fen and two (2) plots in bog wetland adjacent to JED-24;
- (iv) Two (2) plots in fen wetland to the south of the road that connects JED-26 to the wind farm substation;
- (v) Two (2) plots in fen and two (2) plots in bog wetland to the west of JED-29; and
- (vi) Two (2) plots in marsh wetland immediately south of MAT-14.

The following actions will be undertaken at each monitoring plot:

- Measure a 2x2m wetland delineation plot (or a 5x5m plots if woody species are present).
- Establish a permanent photo point at each wetland delineation plot (one photograph per plot), whereby each photograph will be taken from the southwestern corner, looking towards the northeast corner.
- The southwestern corner will be physically marked with a metal peg and attached metal tag.
- Any plots established in fen wetland shall be located on the lower slope/downstream side of the structure.

The results of the wetland monitoring will be provided to the Regional Council with the annual reporting required by Condition CM27.

4.4 Incident monitoring and reporting

Incident-based reporting will be provided to the consent authority(s) as soon as practicable, but no more than ten working days after an unscheduled event associated with vegetation clearance. Such events include notable compliance failure that results in adverse ecological effects, or an event that causes vegetation damage on a scale that requires an urgent remedy according to the Environmental Manager to return to compliance with any section of the site's ecological management plans and planting programmes. All incidents will be tracked to resolution through the site's compliance management system.

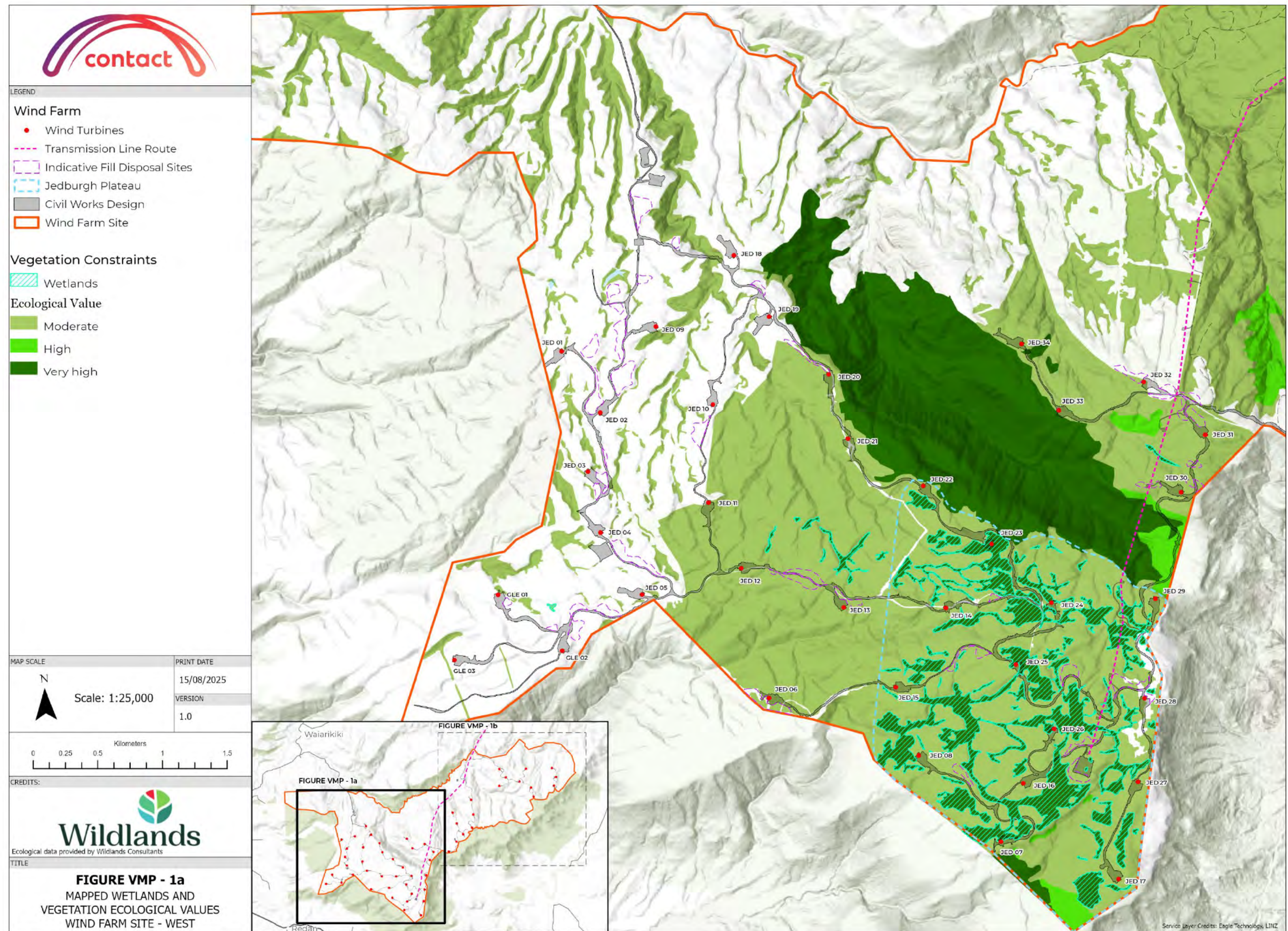
The incident-based report will include the following information:

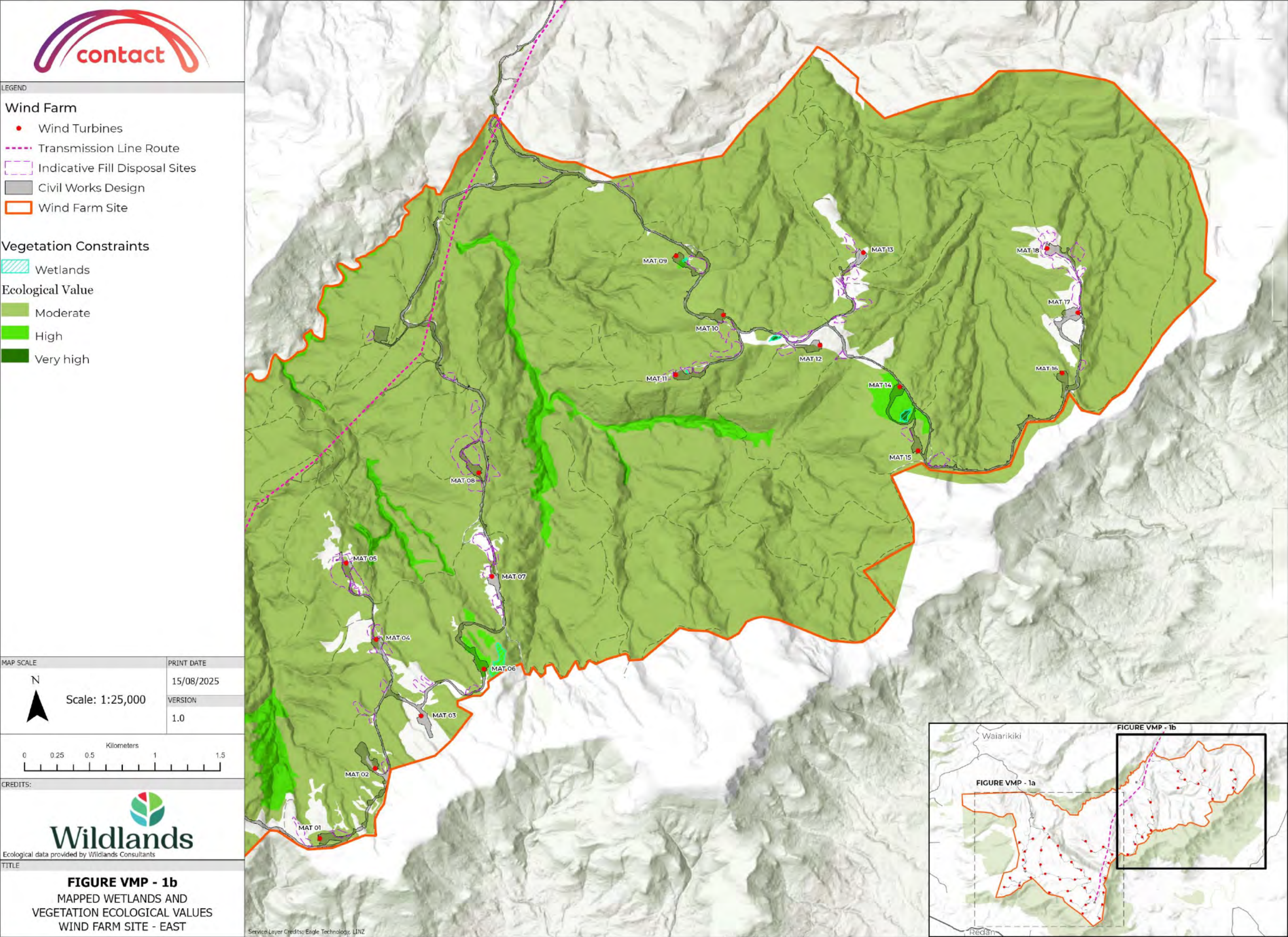
- The cause(s) of the incident, the emergency response measures (if applicable) and the response proposed to avoid a recurrence of the issue;
- An assessment undertaken by a suitably qualified ecologist that details any adverse effects of the exceedance; and
- Proposed measures to avoid, remedy or mitigate effects or to offset or compensate for significant residual effects that cannot be avoided, remedied or mitigated.

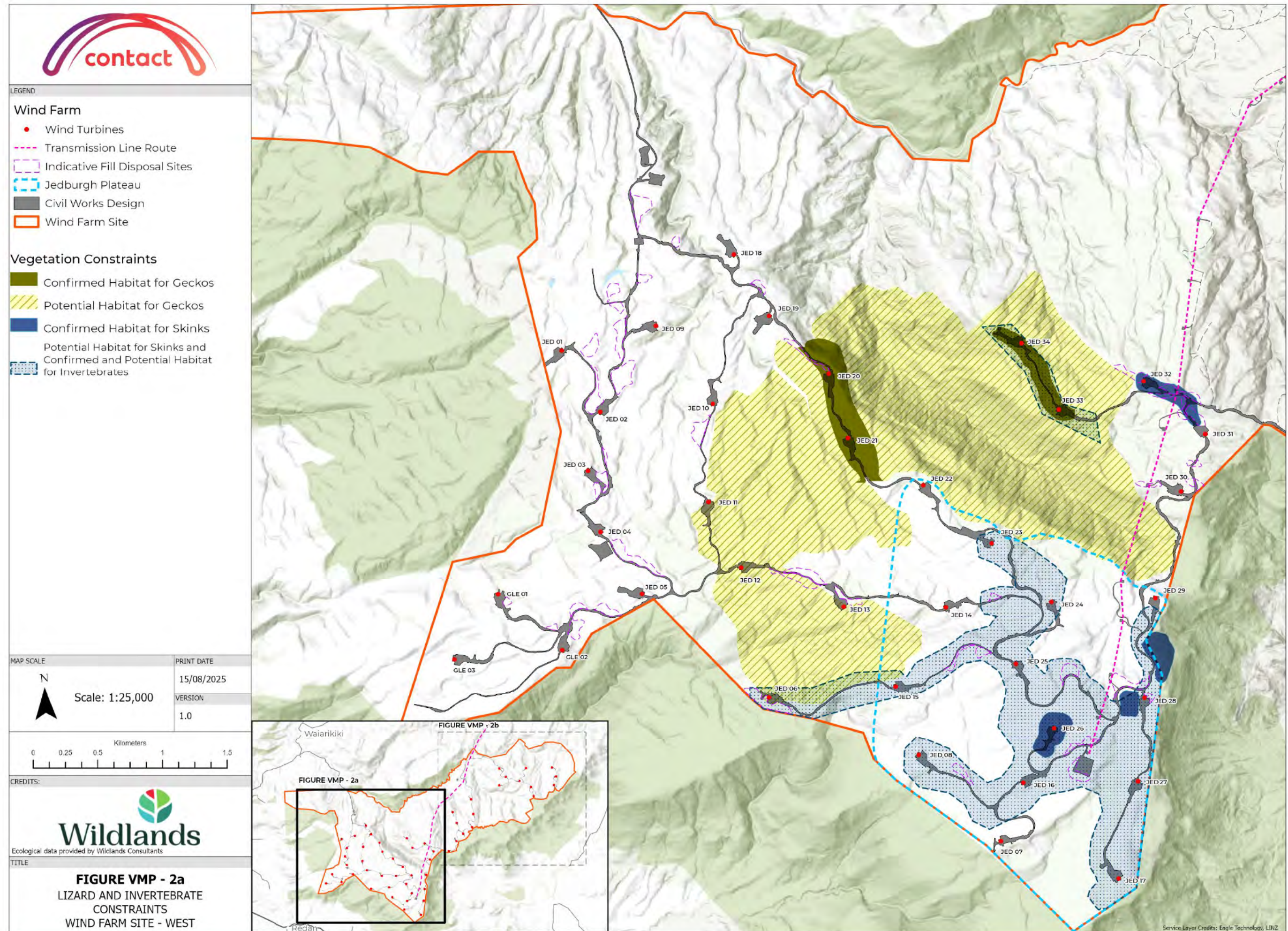
4.5 Annual reporting

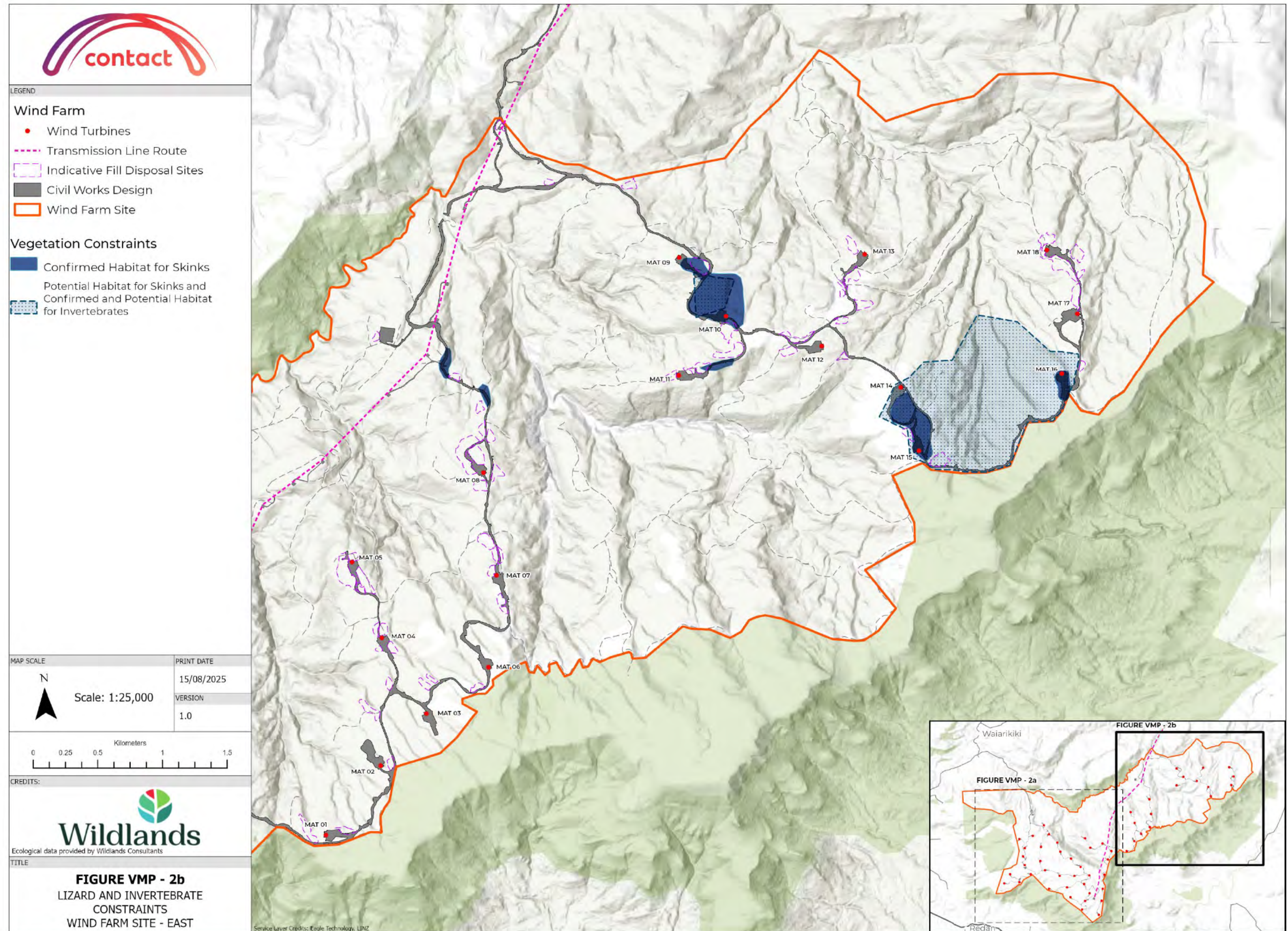
During the construction of the Southland Wind Farm and for the first five years during its operation, an annual post-vegetation clearance monitoring, maintenance and rehabilitation report shall be submitted to the Southland District Council and Regional Council (as per Condition EC11). The report shall include confirmation that the vegetation clearance protocols and maintenance of rehabilitation planting were adhered to in accordance with this VMP. This shall include:

- Maps illustrating areas of vegetation clearance undertaken during the previous clearance season and the temporary construction sites and spoil deposition sites subject to rehabilitation plantings. Commencing the second year of construction, maps should also indicate the locations of vegetation clearance and rehabilitation plantings from previous years.
- Photos showing stockpiled indigenous vegetation for minimising effects on lizards;
- Stockpiled coarse wood for deployment to enhance habitats for notable fauna. The report will include approximate quantities of coarse wood and maps of the receiving habitats.
- Post-clearance reports relating to lizard and invertebrate management plans, including details of any salvage and relocation, will be required under the LMP, TIMP (which includes the Stag Beetle Management Plan).
- Monitoring of the establishment of plants in planted areas and associated maintenance or infill work carried out/required.
- Status of works associated with the HREP.











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